1

1.1

50

2023

35000

12 60 10

253

1.2

“ ”

1.3

682

1.3-1

1.3-1

1.4

1.4.1

1 2020

38 2021 1 27

2020

2 2019

2012 [2013]9

< 2012

> [2013]183

2019

2012 [2013]9 <

2012 >

[2013]183

3 2007

2007

4

[2015]118

[2015]118

5

[2018]32

[2018]32

2022 2022 397

2020

2022 2022 397

2020

12 60 10

1.4.2

2016-2030

IC

1.4.3“ ”

[2018]74

8

—

3.4km

[2020]1

-

—

3.4km

-

“ 227

” ”

88 —

3.4km

[2022]1221

[2018]74

[2020]1

2021

GB3095-2012

GB3095-2012

:

500m

2000m

GB3838-2002 IV

IV

GB/T14848-2017

GB36600-2018

GB12348-2008 “ ”

2016-2030

12 60 10

1.4-1

1.4-1

	1. 2. 3. 4. “263”		
	1. 2. 100 3. 4.	88 900m 100m	
	1 COD 951.09 / NH_3-N 78.38 / 256.58 / 8.42 / COD1095.63 / NH_3-N 85.61 / 304.76 / 9.87 / 2 SO_2 240.55 / 236.10 / NOx 560.99 / 554.62 / 166.07 / 157.74 / VOCs 69.50 / 65.29 / 3.	88	
	2012 77 2006 28		
	1. ≥9 /km^2 ≥22 /km^2 2. ≤9m^3/ ≤8m^3/	/	/

12 60 10

	3. ≤0.2 / ≤0.18 / 4.		

[2016]150

,2022

[2022]7

( ) (2019 136)

1.4-2

,2022 [2022]7

( ) (2019 136)

1.4-2 (2019 136) 2022

1			
2			
3			

4			
5			
6			
7	“ ” 332		
8	1		
9			
10			
11			
12			
13		/	

“ ”

2020 49

2022 2022 397

1.4.4

[2014]128

VOCs

“ ” 90%

[2014]128

2021

2018

2011

1000

1000

2011

2018 91

2018 91

[2019]53

“

”

VOCs

VOCs [2019]53 VOCs

[2019 36]

1

[2019 36]

( )

(

) (2017)

119

[2020]101

(

[2021]65)

VOCs

VOCs 0.3m/s

VOCs 10%

VOCs

VOCs 0.3m/s

“ + ”

(

[2021]65)

“ ” “ ”

GB38508-2020

GB33372-2020

GB30981-2020

(GB38597-2020)

12 60 10

GB 38508-2020

GB 33372-2020

GB38508-2020 6

GB33372-2020 3 7

VOCs

1.4-3 GB38508-2020

		VOC g/L	50	≤ 44
		/%	0.5	ND
		g/kg	0.5	ND
		/%	0.5	ND

12 60 10

1.4-4 **GB38508-2020**

			VOCs (g/kg)	(g/kg)
			50	≤ 19

1.4-5 **GB30981-2020**

			VOC / g/L	g/L
2				
		-	≤ 600	≤ 380
			≤ 500	≤ 124
			≤ 500	≤ 445
	/%		≤ 35	≤ 18.16
	/%		≤ 0.3	ND

1.4-6 **(GB38597-2020)**

			VOC / g/L	g/L
2				
		-	≤ 420	≤ 380
			≤ 420	≤ 124
			≤ 450	≤ 445

VOCs

2021

VOCs

GB/T 38597-2020

GB 38508-2020

GB

33372-2020

[2021]2

3130

GB/T38597-2020

VOCs GB38507-2020

GB38508-

2020

GB33372-2020

VOCs

VOCs

2021

VOCs

GB/T

38597-2020

3130

VOCs

VOCs VOCs

GB 38508-2020

GB

33372-2020

[2021]2

2023 [2023]13

VOCs

VOCs

[2022]85 VOCs

VOCs

VOCs VOCs

VOCs VOCs

5

+CO

“ ”

“ ”

“

”

“

”

“ ” “ ”

“ ”

“ ” “ ”

“ ” “

”

12 60 10

“ ”

1.4.5

1.5

1

2

3

12 60 10

4

1.6

“ ”

2

2.1

2.1.1

1 2014 4 24 2015 1 1

2 2018 10 26

3 2017 6 27

4 2020 4 29

5 2021 12 24

6 2018

7 2018 8 31

8 ([2015]4)

9 (2021)

10 3

11 [2012]77

12 2021

13 2021

14 682 2017 10 1

15 2017 43

16 2022

17 GB34330-2017

18 604

2011 11 1

19 (2019)

20

21 4

2019 1 1

22 (

[2018]22)

23 2020-2021

[2020]62

24 GB18597-2023

2.1.2

1 [2013]9

2 2

2018 5 1

3 ( ) 2003 3

4 1998

6

5 2018 3 28

6

2017 6 3

7 2020 11 27

8 2018 3 28

9 “ ”
[2016]47
10
[2013]84
11 [2012]2

12
[1997]122
13 [1998]122

14 2007
15
[2006]92
16 [2006]155

17
[2006]98
18
[2009]69
19

[2011]71

20

[2014]148

21

[2008]85

22 [2020]1

23 “ ”

2020 49

24

[2014]104

25

[2018]74

26

[2018]18

27

[2018]24

28

[2018]91

29

[2019]36

30

2019 67

31 < >

[2018]5

2.1.3

1 HJ2.1 2016

2016 12 8 2017 1 1

2 HJ2.2 2018
2018 7 30 2018 12 1
3 HJ/T 2.3 2018
2018 10 8 2019 3 1
4 HJ/T169 2018
2018 10 15 2019 3 1
5 HJ2.4 2009
2009 12 23 2010 4 1
6 HJ610 2016
2016 1 7 2016 1 7
7 HJ19-2011
2011 4 8 2011 9 1
8 HJ964-2018
2018 9 13 2019 7 1
9
2017 43
10 HJ884-2018
2018 3 27 2018 3 27

2.1.4

1 2010-2030
2010.12
2 2016-2030
3
4

2.2

12	60	10

2.3

2.3.1

2.3-1

12 60 10

2.3.2

“ ”

2.3.2

2.3-2

	SO_2 NO_2 PM_{10} $PM_{2.5}$ O_3 CO	SO_2 NO_2 PM_{10}	SO_2 NO_x VOCs	
	pH DO COD	COD SS	COD NH_3-N TP	SS
	Na^+ K^+ Mg^{2+} Ca^{2+} Cl- SO_4^{2-} HCO^{3-} CO_3^{2-} pH ( ) ( )	COD SS	/	/
	A	A	/	/
	/	/		
		/	/	/

2.4

2.4.1

1

GB3095-2012

HJ2.2-2018 D

GB14554-93

2.4-1

12 60 10

2.4-1

	(mg/Nm^3)			
	1			
SO_2	0.5	0.15	0.06	GB3095 2012
NO_2	0.2	0.08	0.04	
PM_{10}	/	0.15	0.10	
$PM_{2.5}$	/	75	35	
O_3	0.2	0.16 8	/	
CO	10	4	/	
	2	/	/	
	20	/	/	GB14554- 93
	0.1	0.1	/	
	0.2	/	/	HJ2.2-2018 D
	0.2	/	/	
	0.1	0.1	/	

2

GB3838-2002 IV

GB3838-

2002 2.4-2

2.4-2

	mg/L		
		IV	
pH	6 9	6 9	GB3838 2002
	≤6	≤10	
COD	≤20	≤30	
DO	≥5	≥3	
	≤1	≤1.5	
	≤0.2	≤0.3	
	≤0.05	≤0.5	
	≤0.05	≤0.05	
	≤1	≤2	
SS	≤30	≤60	SL63-94

3

<

> “

3 ”

3

GB3096-2008 3

2.4-3

2.4-3 dB(A)

	65	55	GB3096-2008 3

4

GB/T14848-

2017 2.4-4

2.4-4 mg/L

		≤5	≤5	≤15	≤25	25
	/NTU	≤3	≤3	≤4	≤10	10
	pH	6.5≤pH≤8.5			5.5≤pH 6.5 8.5 pH≤9.0	pH 5.5 pH 9.0
	CaCO3 / mg/L	≤150	≤300	≤450	≤650	650
		≤300	≤500	≤1000	≤2000	2000
	/ mg/L	≤50	≤150	≤250	≤350	350
	/ mg/L	≤50	≤150	≤250	≤350	350
	/ mg/L	≤0.1	≤0.2	≤0.3	≤2.0	2.0
	/ mg/L	≤0.05	≤0.05	≤0.10	≤1.50	1.50
	/ mg/L	≤0.01	≤0.05	≤1.00	≤1.50	1.50
	/ mg/L	≤0.05	≤0.5	≤1.00	≤5.00	5.00
	/ mg/L	≤0.01	≤0.05	≤0.20	≤0.50	0.50
	/ mg/L	≤0.001	≤0.001	≤0.002	≤0.01	0.01
	/ mg/L		≤0.1	≤0.3	≤0.3	0.3
	CODMN O2 / mg/L	≤1.0	≤2.0	≤3.0	≤10.0	10.0
	N / mg/L	≤0.02	≤0.10	≤0.50	≤1.50	1.50

	/ mg/L	≤0.005	≤0.01	≤0.02	≤0.10	0.10
	/ mg/L	≤100	≤150	≤200	≤400	400
	N / mg/L	≤0.01	≤0.10	≤1.00	≤4.80	4.80
	N / mg/L	≤2.0	≤5.0	≤20.0	≤30.0	30.0
	/ mg/L	≤0.001	≤0.01	≤0.05	≤0.1	0.1
	/ mg/L	≤1.0	≤1.0	≤1.0	≤2.0	2.0
	/ mg/L	≤0.04	≤0.04	≤0.08	≤0.50	0.50
	/ mg/L	≤0.0001	≤0.0001	≤0.001	≤0.002	0.002
	/ mg/L	≤0.001	≤0.001	≤0.01	≤0.05	0.05
	/ mg/L	≤0.01	≤0.01	≤0.01	≤0.1	0.1
	/ mg/L	≤0.0001	≤0.001	≤0.005	≤0.01	0.01
	/ mg/L	≤0.005	≤0.01	≤0.05	≤0.10	0.10
	/ mg/L	≤0.005	≤0.005	≤0.01	≤0.10	0.10
	/ μg /L	≤0.5	≤6	≤60	≤300	300
	/ μg /L	≤0.5	≤0.5	≤2.0	≤50.0	50.0
	/ μg /L	≤0.5	≤1.0	≤10.0	≤120	120
	/ μg /L	≤0.5	≤140	≤700	≤1400	1400

5

0

2.4-5 **mg/kg**

		60	140
		65	172
		5.7	78
		18000	36000
		800	2500
		38	82
		900	2000
		2.8	36
		0.9	10
		37	120
	1,1-	9	100
	1,2-	5	21
	1,1-	66	200
	-1,2-	596	2000
	-1,2-	54	163
		616	2000
	1,2-	5	47
	1,1,1,2-	10	100

12 60 10

	1,1,2,2-	6.8	50
		53	183
	1,1,1-	840	840
	1,1,2-	2.8	15
		2.8	20
	1,2,3-	0.5	5
		0.43	4.3
		4	40
		270	1000
	1,2-	560	560
	1,4-	20	200
		28	280
		1290	1290
		1200	1200
	+	570	570
		640	640
		76	760
		260	663
	2-	2256	4500
	a	15	151
	a	1.5	15
	[b]	15	151
	[k]	151	1500
		1293	12900
	[a,h]	1.5	15
	[1,2,3-cd]	15	151
		70	700
	C_{10}-C_{40}	4500	9000

2.4.2

1

TVOC CO SO_2 NOx

DB32/4439-2022 1

2

DB32/4041-2021 1

DB31/933-2015

DB32/4041-2021 1

SO_2 NOx

DB32/4385-2022 1

DB32/4041-2021 3

DB32/4439-2022 3

2.4-6

2.4-6

		mg/Nm^3			(mg/Nm^3	
			m	kg/h		
		10	15	0.4	0.5	DB32/4439-2022 DB32/4041-2021
		20	15	0.8	0.4	
		50	15	2.0	4	
	TVOC	80	15	3.2	/	
	SO_2	200	/	/	/	
	NOx	200	/	/	/	
		10		0.2	0.2	DB32/4041-2021
		10		0.72	0.2	
		50	15	1.0	1.0	DB31/933-2015
		50	15	1.0	0.5	
		20	15	1	0.5	DB32/4041-2021
		10	/	/	/	DB32/4385-2022
	SO_2	35	/	/	/	
	NOx	50	/	/	/	
		6 1h				DB32/4439-2022
		20				

2

COD

DB32/1072-2018 2

GB18918-2002 A

2.4-7 * mg/L

COD	450	50	DB32/1072-2018 2
	35	4 6	
	45	12	
	6	0.5	
pH	6 9	6 9	GB18918-2002 1 A
SS	250	10	
	0.5	0.5	

(GB12348-2008) 3 2.4-8

2.4-8 dB(A)

	Leq dB A		
	65	55	GB3096-2008 3

GB12523-

2011 , 2.4-9

2.4-9 dB(A)

	70	55

GB18599-2020

GB18597-2023 2013

2.5

2.5.1

2.5.2

HJ/T2.3-2018

HJ2.3-2018

B

2.5-1

		Q/(m3/d) W/( )
		Q≥20000 W≥600000
A		Q 200 W 6000
B		—

HJ2.2-2018 5.3

A AERSCREEN

Pi i

10% $D_{10\%}$

AerScreen

2.5-2

2.5-2

/	/	
		/
/ºC		40

12 60 10

/ºC		-10
	/m	90
		3KM
	/km	/
	/	/

DA001 DA002 DA003

HJ2.2-2018

DA001 DA002 DA003

2.5-3

2.5-3

			C_{max} mg/m^3	P_{max} %	$D_{10\%}$ m
	DA001		8.45E-03	0.42	
			6.77E-04	0.34	
			4.60E-04	0.23	
			5.81E-04	0.58	
			1.31E-03	1.31	
			2.61E-03	0.52	
		PM10	2.18E-03	0.48	
			1.69E-02	8.45	
	DA005	PM10	1.16E-02	2.58	
	DA003		9.54E-03	1.91	
		PM10	2.18E-03	0.48	
			1.46E-02	7.32	
			2.97E-02	1.48	
			2.48E-03	1.24	
			1.65E-03	0.82	
			2.06E-03	2.06	
			4.54E-03	4.54	
		PM10	2.82E-02	6.27	
			4.48E-03	0.22	
			2.29E-03	0.11	
			3.31E-02	1.66	

12 60 10

P_{max} % =8.45 HJ2.2-2018

2.5.2-3

2.5-4

	Pmax≥10%
	1%≤Pmax 10%
	Pmax<1%

GB3096-2008 3

3dB(A)

HJ2.4 2021

- HJ610-2016

1 A

2

2.5-5

2.5-5

“ ”	

12 60 10

2.5-6

2.5-6

A

2.5-5

P

Q

HJ169-2018

B

Q

Q

(C.1)

(Q)

$$Q = \frac{q_1}{Q_1} + \frac{q_2}{Q_2} + \frac{q_n}{Q_n} \qquad (C.1)$$

$q_1, q_2 \ldots, q_n$-- t

Q_1 $Q_2 \ldots Q_n$— t

Q 1

Q≥1 Q 1 1≤Q 10 2 10≤Q 100 3 Q≥100

q/Q 2.5-7

12 60 10

2.5-7 q/Q t

		CAS			Q
1		1330-20-7	10	0.33025	0.0330
2		100-41-4	10	0.15499	0.0155
3		64742-89-8	10	0.955	0.0955
4		71-36-3	10	0.3054	0.0305
5		64-17-5	500	0.01	0.00002
6		71-23-8	5	0.21	0.0420
7		108-95-2	5	0.01	0.0020
8		108-88-3	10	0.08847	0.0088
9		123-86-4	10	0.27	0.0270
10		141-78-6	10	0.108	0.0108
11		25154-52-3	1	0.01	0.0100
12		141-32-2	10	0.0006	0.0001
13		/	2500	22.8474	0.0091
14		74-82-8	10	2	0.2000
15		/	50	0.115	0.0023
16		/	2500	0.33	0.0001
17			50	0.2	0.0040
18		/	50	4	0.0800
19		/	50	0.83	0.0166
20		/	50	0.41	0.0082
21			50	0.83	0.0166
22		/	50	4.2	0.0840
/			/		0.7

*

Q Q 1

2

2.3.1-6

2.3.1-6

	+			
				a
a A				

HJ964-2018

A

I

33200m^2

200m

2.5-8 2.5-9

2.5-8

2.5-9

	I			II			III		
									-
								-	-
“-”									

HJ/T2.1-2016

HJ19-2011

2.6

2.6.1

2.6-1

2.6-1

	5km
	1~200m
	500 3000
	6 km^2
	3
	0.2km

2.6.2

2.6-2

0 2.6-4 2.3.3

2.6-2

		X	Y					(km)
		-300	1500		2000	GB3095-2012	NW	1.5
		-350	2300		1500		NW	2.3
		-1900	600		700		NW	2.0
		-370	950		500		NW	0.9
		-2300	1000		1000		NW	2.5
		-2400	-800		1000		SW	2.5
		0	-1900		1000		S	1.9
		415	-2570		500		S	2.5

0,0

2.6-3

		X	Y				(km)
		0	2100		GB3838-2002		2.0
		-100	0		GB3838-2002		0.01

2.6-4

		X	Y					(km)
		/	/	/	/	GB3096-		1-200m

						2008 3 4a		
						GB/T14848-2017	/	/
	200					( )(GB36600-2018)	/	/
	-	/	/	6.15km^2 227 47.53km^2				3.4
		/	/	2.50km^2				3.4

2.7

2.7.1

2004 4

57km2 2005 6

[2005]170

204

205

2011 4 [2011]26

[2011]34

[2013]257

227

57

km^2 $46km^2$

2016 2030

2016-2030

[2021]6

77.48 km2

2011 46km

2.4.1-1

12 60 10

2.4.1-2

2.7.2

1

IC

2

1

2

12 60 10

3

“

”

2.4.2

2.7.3

2

75 t/ h +1 C15MW 18MW 1 75 t/ h +1 C15MW 5 3 3×75t/h +1×15MW +1×6MW

12 t/d

+

6 m^3/d 3 m^3/d 1 m^3/d

12 m^3/d

2.4.3

220KV

2×180MVA 220KV

2×180MVA 3 220KV

110KV

“ ”

36.33 /

PE

2.7.4

1

GB3095 2012

ISO14000

2

III IV

3

1 2

3

4

2.7.5

IC

88

2.7.6

[2020]1

2016 59

2018 74

3

3.1

3.1.1

12 60 10

88

35000 1000

2.9%

33200m^2

380

280 10

5600

3.1

3.1.2

22020 12

60 10

3.1-1

3.1-1

1		CK IQT IQ1/2/3 IQ4/5 ROM&ROMP CP K-tork GP	12	5600
2		/	60	5600
3		/	10	5600

12 60 10

3.1-2

		mm	m^2	t/m^3	t	%	t	t	t

3.1.3

16

3.1.4

3.1-3

3.1-3

		92.78m^2	
		45m^2	
		4500m^2	
		t/a	
		t/a	
		300 /	
		925000m^3/a	
		1	
		2 13Nm3/min	
		2	vrv
		2 1t/h	
		1 + +	

		DA001	
		1	
		1 DA002	
		1 DA003	
		40m^2 40m^2	
		/	
		260m^3	

3.2

3

3.2.1

/

10000

(1)

(2)

(3)

(4)

(5)

(6)

12 60 10

1

2

3

4

7.5% 5min 45-60 0.1-0.15MPa

3min 45-60

5

6 5min

8min

25-40 65min 180-300 μm

A:B=13:1 =49.88:3.28:1

+

+

+

7 5min

8min

25-40 65min 180-300 μm

A:B=3.36:1

+

+

+

8 5min

8min

25-40 65min 180-300 μm

A:B=7:1 =24.04:3.07:1

+

+

+

9

10

11

3.2-1 3.2-2

12 60 10

3.2-1

3.2-2 /

3.2.2

(1)

(2)

7.5% 5min 45-60 0.1-0.15MPa

3min 45-60

(3) 5min

8min

80 40min 80-120 μm

A:B=13:1

=49.88:3.28:1 =7:1:1

+

+

+

12 60 10

4 5min

8min

80 65min 80-120 μm

A:B=3.36:1

+

+

+

5 5min

8min

80 66min 80-120 μm

PPG A:B=7:1

=24.04:3.07:1 =100:11.1:40

=52:48:5.8

+

+

+

(6)

(7)

3.2-3

12 60 10

3.2-3

3.2.3

Fairchild Bifold Fairchild

Fairchild

(1)

2 3 3

3

4 12

5

(6)

Bifold

1

2

3

4

3.2-4

12 60 10

3.2-4Fairchild

3.2-5Bifold

3.2.4

2 1t/h

+ + +RO

5mg/L

(Ca2+) (Mg2+)

RO

99%

3.3

12 60 10

3.3-1

12 60 10

3.4

3.4-1

3.4-1

12 60 10

3.5

3.5-1

3.5-1

12 60 10

3.6

3.6.1

MSDS

100% 60%

1-2% 98-99%

3.6-1 **%**

			t/a	%	

12 60 10

			t/a	%	

3.6-2

			t/a	t/a						
								TVOC		
		A								
		B								
		A								
		B								

12 60 10

		A								
		B								
		A								
		B								

3.6-3

			t/a	t/a						
			t/a					TVOC		
		A								
		B								
		A								
		B								
		A								
		B								
		PPG								
		PPG								
		PPG								

12 60 10

3.7

1

2 1t/h 70%

1950t/a 650t/a

2

7.5%

267t 2t

1680t 1960t

3

4t/a

4

380 280 150L

15960t/a 80%

12768t/a

12 60 10

3.8

HJ884-2018

3.8.1

MSDS

100% 60%

1-2% 98-99%

+CO

99%

2t/a

100%

MSDS

90% VOC 10%

12	60	10

0.1% 0.02t

20L/a

0.002t/a

2t/a

CO

10000m^3 2.86kg $SO_2$12.6kg NOx19.2kg

448000m^3/a

0.128t/a $SO_2$0.56t/a NOx0.86t/a CO

477000m^3/a 0.136t/a $SO_2$0.6 t/a NOx 0.92t/a

0.264t/a $SO_2$1.16 t/a NOx 1.78t/a

CO

CO_2 H_2O NOx N NOx

RTO NOx 5t/a

CO NOx 3.5t/a CO NOx N NOx 3t/a

3.8-1

3.8-1

		m3/h						**%**									
				mg/m3	kg/h	t/a			mg/m3	kg/h	t/a	mg/m3	kg/h		m	m	
*	5600	105000		63.2051	6.6365	37.1646	+	99	0.632	0.066	0.372	10	0.4	DA001	15	0.8	
				66.4791	6.9803	39.0897	+CO	98	3.324	0.349	1.954	50	2.0				
			TVOC	66.4791	6.9803	39.0897			3.324	0.349	1.954	80	3.2				
				3.6625	0.3846	2.153527			0.183	0.019	0.108	3	0.6				
				5.2547	0.5517	3.089741			0.263	0.028	0.154	25	2.5				
				13.6857	1.4370	8.047205			0.684	0.072	0.402	20	0.8				
				4.5459	0.4773	2.673			0.227	0.024	0.134	50	1.0				
				10.5061	1.1031	6.1776			0.525	0.055	0.309	50	1.0				
CO	5600	105000		0.2313	0.0243	0.136	/	/	0.231	0.024	0.136	10	/				
			SO_2	1.0204	0.1071	0.6		/	1.020	0.107	0.600	35	/				
			NOx	6.6667	0.7	3.92		/	6.6667	0.7	3.92	50	/				
	1000	20000		100	2	2		90%	10	0.2	0.2	20	1	DA002	15	0.5	

		m3/h		mg/m3	kg/h	t/a		**%**	mg/m3	kg/h	t/a	mg/m3	kg/h		m	m	
	5600	4000		5.7143	0.0229	0.128		/	5.714	0.023	0.128	10	/	DA003	15	0.35	
			SO_2	25	0.1	0.56		/	25.000	0.100	0.560	35	/				
			NOx	38.3929	0.1536	0.86		/	38.393	0.154	0.860	50	/				

* G1-4 G1-7 G1-10 G2-2 G2-5 G2-8 G1-5 G1-8 G1-11 G2-3 G2-6 G2-9 G1-6 G1-9 G1-12 G2-4 G2-7 G2-10

12 60 10

2

3.8-2

3.8-2

		(t/a)	(kg/h)		(t/a)	(kg/h)	(m)	(m)	(m)
		0.38	0.067		0.38	0.067			
		0.395	0.071		0.395	0.071			
	TVOC	0.395	0.071		0.395	0.071			
		0.022	0.004		0.022	0.004			
		0.031	0.006	/	0.031	0.006			
		0.081	0.015		0.081	0.015	100	25	10
		0.027	0.005		0.027	0.005			
		0.062	0.011		0.062	0.011			
		0.002	0.02	/	0.002	0.02			
		0.02	0.004	/	0.02	0.004	10	10	10
		0.048	0.009		0.012	0.002	10	10	10
		2	0.28		0.2	0.03	10	10.8	8

3.8.2

1

2t/h 70% 1950t/a

650t/a

2

7.5%

267t 2t

1680t 1960t

3

4t/a

4

380 280 150L

15960t/a 80%

12768t/a

3.8-3

12 60 10

3.8-3

		t/a								**mg/L**	
				mg/L	t/a		/ t/a	mg/L	t/a		
	W1-1,W2-1	1960	COD	400	0.784	10t/d	1910	/	/	/	
			SS	100	0.196			/	/		
				5	0.01			/	/		
	/	4	COD	400	0.0016		13422	COD 391 SS:200	COD 5.2416 SS:250	COD 450 SS:250	
			SS	200	0.0008						
	/	650	COD	200	0.13						
			SS	200	0.13						
	/	12768	COD	450	5.11						
			SS	200	2.55						
				35	0.45			35	0.45	35	
				45	0.57			45	0.57	45	
				5	0.064			6	0.064	6	

12 60 10

3.8.3

80

85dB(A)

3.8-4

3.8-4

		dB A			m
1		85	3		40
2		85	1		10
3		85	10		8
4		85	2		10

3.8.4

1 0.5t/a

2

1.38t/a

3 1.9t/a

4

4t/a

5

2.4t/a

6

47.16t/a

7

10t/a

8

12 60 10

0.41t/a

9

10t/a

10

70t/a

11

1t/a

12

50t/a

13 380 280

1kg 106t/a

3.8-5

3.8-5

						t/a	**t/a**	**t/a**
1						0.5	0	0.5
2						1.38	0	1.38
3						4	0	4
4						2.4	0	2.4
5						47.16	0	47.16
6						10	0	10
7						0.41	0	0.41
8						10	0	10
9					/	70	0	70
10					/	1	0	1
11				/	/	50	0	50
12					/	1.9	0	1.9
13				/	/	106	0	106

12 60 10

3.8-6

3.8-6

				t/a			
				0.5	√		
				1.38	√		
				4	√		
				2.4	√		
				47.16	√		
				10	√		
				0.41	√		
				10	√		
				70	√		
				1	√		
			/	50	√		
				1.9	√		

2021

3.8-7

3.8-7

1				HW49	900-041-49
2				HW12	900-252-12
3				HW08	900-217-08
4				HW12	900-252-12
5				HW49	900-041-49
6				HW08	900-249-08
7				HW49	900-041-49
8				HW49	900-041-49
9				/	/
10				/	/
11				HW11	900-013-11
12				/	/

12 60 10

3.8-8

3.8-8

				t/a							
1		HW49	900-041-49	0.5						T/In	
2		HW12	900-252-12	1.38						T,I	
3		HW08	900-217-08	4						T,I	
4		HW12	900-252-12	2.4						T,I	
5		HW49	900-041-49	47.16						T/In	
6		HW08	900-249-08	10						T,I	
7		HW49	900-041-49	0.41						T	
8		HW49	900-041-49	10						T/In	
9		HW11	900-013-11	50						T	

40 m^2

GB18597-2023

[2019]327

12 60 10

3.8-9

										t/a	
1							T/In	HW49	900-041-49	0.5	
2							T,I	HW12	900-252-12	1.38	
3							T,I	HW08	900-217-08	4	
4							T,I	HW12	900-252-12	2.4	
5							T/In	HW49	900-041-49	47.16	
6							T,I	HW08	900-249-08	10	
7							T	HW49	900-041-49	0.41	
8							T/In	HW49	900-041-49	10	
9							T	HW11	900-013-11	50	
18							/	/	/	70	
19							/	/	/	1	
20							/	/	/	1.9	
22					/		/	/	/	106	

12 60 10

3.9

1

0%

3.9-1

3.9-1

			%		
		kg/h		**kg/h**	min
		6.6365	0	6.6365	30
		6.9803	0	6.9803	30
	TVOC	6.9803	0	6.9803	30
		0.3846	0	0.3846	30
		0.5517	0	0.5517	30
		1.4370	0	1.4370	30
		0.4773	0	0.4773	30
		1.1031	0	1.1031	30
		6.6365	0	6.6365	30
		2	0	2	30

2

,

12 60 10

3.10 “ ”

“ ” 3.10-1

3.10-1 “ ” t/a

			39.4286	38.5926	/	0.836
		SO_2	1.16	0	/	1.16
		NO_X	5.28	0	/	5.28
			39.0897	37.1357	/	1.954
		TVOC	39.0897	37.1357	/	1.954
			2.153527	2.045527	/	0.108
			3.089741	2.935741	/	0.154
			8.047205	7.645205	/	0.402
			2.673	2.539	/	0.134
			6.1776	5.8686	/	0.309
			0.38	0	/	0.38
			2.465	1.836	/	0.629
		TVOC	0.395	0	/	0.395
			0.022	0	/	0.022
			0.031	0	/	0.031
			0.081	0	/	0.081
			0.027	0	/	0.027
			0.062	0	/	0.062
			2614	1960	654	654
		COD	0.9156	0.784	0.1316	0.02
		SS	0.148	0.196	0.1308	0.0033
			0.01	0.01	0	0
			12768	0	12768	12768
		COD	5.11	0	5.11	0.38
		SS	2.55	0	2.55	0.064
			0.45	0	0.45	0.019
			0.57	0	0.57	0.128
			0.064	0	0.064	0.0038
			125.85	125.85	/	0
			72.9	72.9	/	0
			106	106	/	0

3.11

3.11.1

12 60 10

3.11.2

3.4-1

q/Q !

3.11-1

				%	LD50 LC50		t	
	-22	126.1		1.2%-7.5%	/		1.0273	
	12	82.45		1.2%- 6.9%	LD50 28710mg/kg LC50 16000ppm(V) /4h( )		0.4	
	-4	77.2		2.0%- 11.5%	LD50 5620mg/kg		0.28705	
	127.9	251		0.9%- 9.5%	/	/	0.00093	
	130	255		/	LD50(mg/kg) 710		0.27	
	25	139		1.1%- 7.0%	LD50 5000mg/kg		0.08142	
2-	24	99.5		1.7%-9.8%	LD50 6480mg/kg		0.0048	
	15	-94.9		1.0%-6.7%	LD50 3500mg/kg		0.00528 4	

3.11.3

12 60 10

CO

4.11-2

3.11-2

12 60 10

4

3.11.4 /

12 60 10

3.11.5

4.11-3

3.11-3

				/	/
			/		
			/		
				/	/
				/	/
				/	/
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				/	/
			/		/
			/	/	

3.11.6

3.11-4

3.11-4

12 60 10

3.11.7

HJ 169-2018

/

CO/

3.11.5

3.11-5

					5.00×10^{-6}/a	
					5.00×10^{-6}/a	
					5.00×10^{-6}/a	
					5.00×10^{-6}/a	
					5.00×10^{-6}/a	
					5.00×10^{-6}/a	
					5.00×10^{-6}/a	

12 60 10

3.11.8

Q_L—— kg/s

C_d——

A—— m^2 φ10mm $7.85\times10^{-5}m^2$

P—— Pa

P_θ—— Pa 101325Pa

g—— $9.8m/s^2$

h—— m

3.11-6

C_d			0.65	0.65
A		m^2	7.85×10^{-5}	7.85×10^{-5}
ρ		kg/m^3	883	860
P		Pa	101325	101325
P_0		Pa	101325	101325
g		m/s^2	9.8	9.8
h		m	0.15	0.15
Q_L		kg/s	0.078	0.075
T		s	180	180
Q		kg	13.86	13.5

3.11-7

					kg/s	min	kg	kg/s
1					0.078	3	13.86	0.02
2					0.075	3	13.50	0.01

12 60 10

3.11.9 /

/

1

5% 2

0.287 0.08 HJ169-2018 2%

$0.120.287 \times 5\% \times 2\%/7200=3.9 \times 10^{-8}$kg/s

$0.0750.08 \times 5\% \times 2\%/7200=1.11 \times 10^{-8}$kg/s

2 /

5%

2

HJ169-2018

/

$G_{CO}=2330qCQ$

G_{CO}—— kg/s

C—— 61.9%

q—— 1.5%~6.0% 2%

Q—— t/s Q 0.000243t/s

CO 0.017kg/s

3.12

3.12.1

12 60 10

3.12.2

VOC

3.12.3

3.12.4

4

4.1

4.1.1

210 120°33’ 121°03’ 31°31’ 31°50’ 100 38

49 37 1142 24.3

4.1.1

4.1.2

— 1 3 “ ” 4.5

4

pH7.5 3%

4.1.3

12 2 3

5 6

8 9

10

11

4.1-1

4.1-1

		14.8	27.9	17.4	2.8	15.5
		19.8	31.8	22.1	6.9	19.8
		10.6	24.7	13.7	-0.3	12.0
hpa		1014.8	1003.8	1019.7	1026.3	1016.4
%		75	82	77	75	77
mm		85.3	161.7	57.5	34.6	84.8

4.1.4

6 3 4 18.3

1.5 2

3 0.5 24

— 0.06m/s

12m3/s 34.8 80

3 200

41.3

5.3 20

30 50 100 -0.5

36.8m^3/s

10.3

25 0.5 49.6m3/s

3.0 3.4

5.1.4

4.1.5

4.2

4.2.1

4.2.1.1

HJ2.2-2018

2022 2022

82.2%~100.0%

0.3 1.9 3.3

100.0% 0.3

24 95 8

90

3.72 0.30

2019-2024 2024

1

2

3 SO2 NOx VOCs

4

5

6 VOCs VOCs

7

8

4.2.1.2

HJ2.2 2018

2 4.2.1-2 2.3.3

2

2020 2023

12 60 10

4.2-1

			m	
G1		/	/	
G2			1300	

2020.12.6 2020.12.12

SO2 NO2

7 4 02 08

14 20 SO2 NO2 PM10 7 20

GB3095-2012

2.4.1 2.4-1

$$I_{ij}=C_{ij}/C_{sj}$$

I_{ij} i j

C_{ij} i j mg/m^3;

C_{sj} i mg/m^3;

I 1 1

12 60 10

4.2-3

4.2-2

			kPa	%	m/s	
2020.12.06	2:00	6.3	102.8	70.2	2.3	0
	8:00	9.2	102.7	60.7	1.6	0
	14:00	14.2	102.7	52.1	1.8	0
	20:00	8.6	102.7	61.7	1.9	0
2020.12.07	2:00	8.1	102.9	69.3	2.1	0
	8:00	10.2	102.8	60.1	1.8	0
	14:00	14.5	102.8	51.7	1.6	0
	20:00	9.6	102.8	61.3	2.3	0
2020.12.08	2:00	7.2	102.9	70.4	2.0	45
	8:00	10.1	102.8	60.0	1.6	45
	14:00	13.9	102.8	53.2	1.9	45
	20:00	9.4	102.8	60.7	2.1	45
2020.12.09	2:00	9.3	102.5	70.3	2.6	90
	8:00	11.2	102.4	61.2	1.8	90
	14:00	15.7	102.4	51.2	1.6	90
	20:00	10.7	102.4	62.3	2.1	90
2020.12.10	2:00	10.3	102.1	72.3	1.6	0
	8:00	12.7	102.0	63.2	2.0	0
	14:00	16.8	102.0	62.1	1.5	0
	20:00	12.1	102.0	63.7	2.3	0
2020.12.11	2:00	9.2	102.1	73.2	1.7	0
	8:00	12.1	102.0	63.7	1.9	0
	14:00	14.3	102.0	62.7	2.1	0
	20:00	11.7	102.0	64.2	1.7	0
	22:00	-	-	-	1.9	0
2020.12.12	2:00	7.3	102.3	73.5	1.6	0
	8:00	10.2	102.2	63.1	1.9	0
	14:00	12.7	102.2	62.7	2.3	0
	20:00	10.1	102.2	63.5	1.9	0
	22:00	-	-	-	1.7	0

4.2-3 **mg/m³**

			μ g/m³	μ g/m³	%	%	
	G1		2.0mg/m³	1.45-1.71mg/m³	85.5	/	
	G2			1.64-1.82mg/m³	91	/	
	G1		200	ND-3.2	1.6	/	
	G2			ND-3.4	1.7	/	
	G1		100	ND	/	/	
	G2			ND	/	/	
	G1		100	ND	/	/	
	G2			ND	/	/	
	G1	/	20	10	/	/	/
	G2			10	/	/	/

12 60 10

4.2.2

pH DO COD

W1~W5

4.2.2-1 4.

4.2-4

	W1	0.5km	pH DO COD
	W2		
	W3	0.5km	
	W4		DO pH BOD5 COD SS TOC

W1-W3 2022 4 20 4 22 3 2

W4 2022 11 09 11 11 3 2

2022

GB3838-2002 IV

GB3838-2002

2.4.1-2

Sij=Cij/Csj

Sij: i j

Cij: i j mg/L

CSj: i mg/L

:

DOj≥DOs

DOj<DOs

pH

pHj≤7.0

pHj>7.0

SpHj: pH j

pHj: j pH

pHsu: pH

pHsd: pH

SDOj: DO j

DOf: mg/L

DOj: mg/L

DOs: mg/L

12 60 10

Tj: j t

4.2.2-4

12 60 10

4.2-5 mg/L pH

			pH			COD					
W1	0.5km		7.6	9.1	7.42	21	4.27	25	0.475	0.07	ND
			7.9	10.3	7.65	28	5.85	29	0.957	0.13	0.02
			7.75	9.58	7.565	25.17	5.22	26.83	0.66	0.093	0.015
		%	0	0	0	0	0	0	0	0	0
W2			7.2	8.9	6.32	25	4.43	21	0.494	0.11	ND
			7.6	10.2	7.84	29	5.82	27	0.985	0.13	0.03
			7.43	9.45	7.43	27	5.26	24.5	0.71	0.12	0.02
		%	0	0	0	0	0	0	0	0	0
W3	0.5km		7.3	8.7	7.41	24	4.78	21	0.384	0.08	0.06
			7.8	9.9	7.86	29	5.66	28	0.76	0.11	0.06
			7.65	9.35	7.69	27	5.17	25	0.55	0.095	0.06
		%	0	0	0	0	0	0	0	0	0
W4			7.2	17.5	6.1	13	2.5	21	0.276	0.11	0.01
			7.4	18.3	6.6	20	2.8	24	0.571	0.14	0.02
			7.28	17.8	6.28	16.3	2.62	22.5	0.377	0.12	0.015
		Sij	0.14	/	/	0.54	0.262	/	0.25	0.4	0.03
		%	0	0	0	0	0	/	0	0	0
								/			

4.2.2-4

GB3838-2002 IV

4.2.2-4 3

GB3838-2002

4.2.3

GB3096-2008

GB12348-2008

6 4.1-1. A

2022 11 09 11 10

2

6:00-22:00

22:00-6:00

200m

200m

4.2.3

4.2-6

			N1	N2	N3	N4	
Leq dB(A)	1	2022.11.09	58.7	59.0	59.3	57.6	
	2	2022.11.10	58.2	58.6	58.9	60.1	
Leq dB(A)	1	2022.11.09	48.9	48.9	51.1	47.6	
	2	2022.11.10	49.4	48.9	50.4	48.3	

4.2-6

51.3 56.0dB(A) 42.9 48.2dB(A) 4

GB3096-2008 3

3

4.2.4

4.2.4.1

2023 02 03 2023 02 07 10

5 PVC

5~6m

0.93 1.67m

4.2.4-1

4.2-7

		(m)
1	D1	11.04
2	D2	11.168
3	D3	11.212
4	D4	11.848
5	D5	10.987
6	D6	10.914
7	D7	10.642
8	D8	15.053
9	D9	10.825
10	D10	10.918

4.2.4.2

5

2023 02 03 2023 02 07

5

1.0m 4.2.4

(2)

Na+ K+ Mg2+ Ca2+ Cl- SO42- HCO3- CO32-

pH

SO42- Cl-

(3)

2022 1 13

1#		Na+ K+ Mg2+ Ca2+ Cl- SO42- HCO3- CO32- pH
2#		
3#		
4#		
5#		
6#		
7#		
8#		
9#		
10#		

4.2.4-3

4.2-8

			D1		D2		D3		D4		D5	
			/	/	/	/	/	/	/	/	/	/
pH		/	7.6		7.7		7.7		7.6		7.7	
	mg/L	5×10^{-5}	0.00005L		0.00005L		0.00005L		0.00005L		0.00005L	
	mg/L	9×10^{-5}	0.00009L		0.00009L		0.00009L		0.00009L		0.00009L	
	mg/L	0.04	0.04L		0.04L		0.04L		0.04L		0.04L	
	mg/L	0.009	0.009L		0.009L		0.009L		0.009L		0.009L	
	mg/L	0.009	0.009L		0.009L		0.009L		0.009L		0.009L	
	mg/L	0.004	0.463		0.458		0.466		0.448		0.450	
	mg/L	0.07	160	/	154	/	158	/	154	/	148	/
	mg/L	0.02	252	/	265	/	263	/	312	/	318	/
	mg/L	0.03	187		191		329		252		250	
	mg/L	0.02	98.8	/	104	/	103	/	99.0	/	101	/
	mg/L	0.01	0.01L		0.01L		0.01L		0.01L		0.01L	
	mg/L	0.0003	0.0003L		0.0003L		0.0003L		0.0003L		0.0003L	
	mg/L	0.0004	0.0004L		0.0004L		0.0004L		0.0004L		0.0004L	
	mg/L	0.004	0.004L		0.004L		0.004L		0.004L		0.004L	
	mg/L	0.00004	0.00004L		0.00004L		0.00004L		0.00004L		0.00014	
	mg/L	5.0	1.30×10^{3}		1.16×10^{3}		1.41×10^{3}		1.19×10^{3}		1.06×10^{3}	
	mg/L	0.5	1.6		0.8		1.9		5.6		5.4	
	mg/L	/	3.11×10^{3}		2.79×10^{3}		3.59×10^{3}		2.64×10^{3}		2.52×10^{3}	
		5	5		5		5		5		5	
	mg/L	5	5L	/	5L	/	5L	/	5L	/	5L	/
	mg/L	5	802	/	798	/	812	/	794	/	782	/
	mg/L	0.016	0.074		0.060		0.067		0.078		0.056	
	mg/L	0.016	0.016L		0.016L		0.016L		0.016L		0.016L	

			D1		D2		D3		D4		D5	
	mg/L	0.050	0.050L		0.050L		0.050L		0.050L		0.050L	
		/										
	NTU	0.3	9.2		9.4		9.0		9.3		9.1	
	mg/L	0.005	0.005L		0.005L		0.005L		0.005L		0.005L	
	mg/L	0.002	0.002L		0.002L		0.002L		0.002L		0.002L	
	mg/L	0.002	0.002L		0.002L		0.002L		0.002L		0.002L	
	mg/L	0.0003	0.0003L		0.0003L		0.0003L		0.0003L		0.0003L	
		/										
	MPN/L	10	6.2×10^{4}		1.1×10^{4}		5.5×10^{4}		3.1×10^{3}		4.0×10^{3}	
	CFU/mL	/	2.6×10^{4}		5.8×10^{4}		6.0×10^{4}		6.1×10^{2}		8.4×10^{2}	
	mg/L	0.025	0.060		0.031		0.036		0.032		0.036	
	mg/L	0.018	971		978		966		934		934	
	mg/L	0.006	0.006L		0.006L		0.006L		0.006L		0.006L	
	mg/L	0.007	421		426		419		400		401	
	mg/L	0.0004	0.0004L		0.0004L		0.0004L		0.0004L		0.0004L	
	mg/L	0.0004	0.0004L		0.0004L		0.0004L		0.0004L		0.0004L	
	mg/L	0.0004	0.0004L		0.0004L		0.0004L		0.0004L		0.0004L	
	mg/L	0.0003	0.0003L		0.0003L		0.0003L		0.0003L		0.0003L	
/ -	mg/L	0.0005	0.0005L		0.0005L		0.0005L		0.0005L		0.0005L	
-	mg/L	0.0002	0.0002L		0.0002L		0.0002L		0.0002L		0.0002L	
	mg/L	0.0002	0.0002L		0.0002L		0.0002L		0.0002L		0.0002L	
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	/	/
m	11.040	11.168	11.212	11.848	10.987	10.914	10.642	15.053	10.825	10.918	/	/
1.pH			2. “ \ ”				3.	"L"				

GB/T14848-2017 ,

D1 D2 D3

GB/T14848-2017 D4 D5

GB/T14848-2017 GB/T14848-2017 IV

4.2.5

VOCs

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

6 2 2

4.2.4

2022 1 11

4.2.5-1

4.2-9

							%		
pH			/	8.57	7.50	/	/	0	
		mg/kg	0.01	26.9	7.84	60	44.83	0	
		mg/kg	0.01	0.21	0.02	65	0.32	0	
		mg/kg	0.5	ND	ND	5.7	/	0	
		mg/kg	10	44	20	800	5.5	0	
		mg/kg	0.002	0.296	0.01	38	0.78	0	
		mg/kg	3	97	45	900	10.78	0	
		mg/kg	1	41	10	18000	0.23	0	
VOC		mg/kg	0.0013	ND	ND	2.8	/	0	
		mg/kg	0.0011	ND	ND	0.9	/	0	
		mg/kg	0.0010	ND	ND	37	/	0	
	1 1-	mg/kg	0.0012	ND	ND	9	/	0	
	1 2-	mg/kg	0.0013	ND	ND	5	/	0	
	1 1-	mg/kg	0.0010	ND	ND	66	/	0	
	-1 2-	mg/kg	0.0013	ND	ND	596	/	0	
	-1 2-	mg/kg	0.0014	ND	ND	54	/	0	
		mg/kg	0.0015	ND	ND	616	/	0	
	1 2-	mg/kg	0.0011	ND	ND	5	/	0	
	1 1 1 2-	mg/kg	0.0012	ND	ND	10	/	0	
	1 1 2 2-	mg/kg	0.0012	ND	ND	6.8	/	0	
		mg/kg	0.0014	ND	ND	53	/	0	
	1 1 1-	mg/kg	0.0013	ND	ND	840	/	0	
	1 1 2-	mg/kg	0.0012	ND	ND	2.8	/	0	
		mg/kg	0.0012	ND	ND	2.8	/	0	
	1 2 3-	mg/kg	0.0012	ND	ND	0.5	/	0	
		mg/kg	0.0010	ND	ND	0.43	/	0	
		mg/kg	0.0019	ND	ND	4	/	0	
		mg/kg	0.0012	ND	ND	270	/	0	
	1 2-	mg/kg	0.0015	ND	ND	560	/	0	

							%		
	1 4-	mg/kg	0.0015	ND	ND	20	/	0	
		mg/kg	0.0012	ND	ND	28	/	0	
		mg/kg	0.0011	ND	ND	1290	/	0	
		mg/kg	0.0013	ND	ND	1200	/	0	
	+	mg/kg	0.0012	ND	ND	570	/	0	
		mg/kg	0.0012	ND	ND	640	/	0	
		mg/kg	0.0012	ND	ND	/	/	0	
SVOC		mg/kg	0.09	ND	ND	76	/	0	
		mg/kg	0.1	ND	ND	260	/	0	
	2-	mg/kg	0.06	ND	ND	2256	/	0	
	a	mg/kg	0.1	ND	ND	15	/	0	
	a	mg/kg	0.1	ND	ND	1.5	/	0	
	b	mg/kg	0.2	ND	ND	15	/	0	
	k	mg/kg	0.1	ND	ND	151	/	0	
		mg/kg	0.1	ND	ND	1293	/	0	
	a,h	mg/kg	0.1	ND	ND	1.5	/	0	
	1 2 3-cd	mg/kg	0.1	ND	ND	15	/	0	
		mg/kg	0.09	ND	ND	70	/	0	
	C_{10}- C_{40}	mg/kg	6	119	10	4500	2.64	0	

GB 36600-2018

C10~C40

C10~C40

GB 36600-2018

VOCs

12 60 10

GB 36600-2018

SVOCs

GB 36600-2018

4.3

4.3.1

4.3.1.1

4.3-1

4.3-1

		SO_2 (t/a)	**(t/a)**	**(t/a)**	**(t/a)**	**(t/a)**
1		0.016	0.007	/	/	/
2		77.96	53.47	/	4.04	/
3		560.52	86.47	/	/	/
4		2.5	5.773	/	/	/
5		/	/	0.19	/	0.83
6		/	/	3.04	3.04	3.11
7		2.88	0.36	/	/	/
8		11.15	2.59	26.01	7.52	15.98
9		/	/	0.72	0.902	2.04
10		/	/	/	0.09	1.08
11		/	/	1.61	1.63	1.29
12		8.908	4.891	0.415	2.174	1.46
13		0.293	/	/	/	/
14		0.016	0.367	4.0	/	/
15		/	/	5.6	/	/
16		0.1206	0.0557	0.013	/	/
17		/	/	0.405	/	/
		664.3636	153.9837	42.003	16.696	25.79

4.3.1.2

Pi

Qi— t/a C0i—

mg/Nm^3

a. Pn

b. P

c. Ki

d. d Kn

SO2

4.3-2

4.3-2

		P_{SO2}	P	P	P	P	∑K_n	K_n %	
1		0.11	0.02	/	/	/	0.13	0.002	17
2		519.7	178.23	/	269.33	/	967.3	14.95	2

		P_{S02}	P	P	P	P	$\sum K_n$	K_n %	
		3						5	
3		3736.8	288.23	/	/	/	4025.03	62.229	1
4		16.67	19.24	/	/	/	35.91	0.555	9
5		/	/	0.63	/	8.3	8.93	0.138	14
6		/	/	10.13	22.67	31.1	63.9	0.988	7
7		19.2	1.20	/	/	/	20.4	0.315	11
8		74.33	8.63	86.7	501.33	159.8	830.8	12.845	3
9		/	/	2.4	60.13	20.4	82.9	1.282	6
10		/	/	/	6	10.8	16.8	0.260	12
11		/	/	5.37	108.67	12.9	126.93	1.962	5
12		59.39	16.3	1.38	144.93	14.6	236.6	3.658	4
13		0.293	/	/	/	/	0.293	0.005	16
14		0.11	1.20	10.13	/	/	0.34	0.177	13
15		/	/	37.3	/	/	37.3	0.577	8
16		0.2412	0.37	0.087	/	/	0.6982	0.011	15
17		/	/	2.7	/	/	2.7	0.042	10
$\sum$ Pi		4426.8742	513.42	156.827	1113.06	257.9	6468.0612	100	/
Pi %		68.44	7.94	2.42	17.21	3.99	100	/	/

4.3-2 SO_2

62.229%

SO2 68.44%

4.3.2

12	60	10

5

5.1

5.1.1

2.5.2

ARESCREEN

ARESCREEN 6.1-1

5.1-1

/	/	
		/
/ºC		40
/ºC		-10
	/m	90
		3KM
	/km	/
	/	/

6.1-2

5.1-2

			C_{max} mg/m^3	P_{max} %	$D_{10\%}$ m
			8.45E-03	0.42	
			6.77E-04	0.34	
			4.60E-04	0.23	
	DA001		5.81E-04	0.58	
			1.31E-03	1.31	
			2.61E-03	0.52	
		PM10	2.18E-03	0.48	
			1.69E-02	8.45	
	DA005	PM10	1.16E-02	2.58	
	DA003		9.54E-03	1.91	

			C_{max} mg/m^3	P_{max} %	$D_{10\%}$ m
		PM10	2.18E-03	0.48	
			1.46E-02	7.32	
			2.97E-02	1.48	
			2.48E-03	1.24	
			1.65E-03	0.82	
			2.06E-03	2.06	
			4.54E-03	4.54	
		PM10	2.82E-02	6.27	
			4.48E-03	0.22	
			2.29E-03	0.11	
			3.31E-02	1.66	

1

“ ”

6

2

12 60 10

3

100m

120m

11 1 200m 4.4 1

300m 1 3

100

5.1.2

1

- HJ2.2-2018

2

GBT39499-2020

$$\frac{Q_C}{C_m} = \frac{1}{A}\left(BL^C + 0.25\gamma^2\right)^{0.50} \cdot L^D$$

C_m mg/m^3

Q_C Kg/h

L m

γ m

A B C D

GB/T 39499-2020

100m

6.1.

5.2

B

7.2

5.3

5.3.1

5.3.2

HJ2.4-2009

Lw— dB

Dc— dB

DI 4π sr DΩ

Dc=0dB

A— dB

Adiv— dB

Aatm— dB

Agr— dB

Abar— dB

Amisc— dB

Leqg— dB(A)

LAi— A dB(A)

T— s

ti—i T s

Leqg— dB(A)

Leqb— dB(A)

Lp r — r dB(A)

Lp ro — dB(A)

Lw A LAW

5.3.3

3.8-4

5.3.4

1

80dB

2

5.3-1

5.3-1

1		m/s	2	/
2		/		/
3			20	/
4		%	50	/
5		atm	1	/

10m

5.3.5

5.3.1

5.3-2 **dB(A)**

			/m		dB(A)		dB(A)	dB(A)	
	X	Y	Z						
	92	19	0		52.88	58.7	59.71	65	
	92	19	0		52.88	49.4	54.49	55	
	23	-97	0		53.15	59.0	60.0	65	
	23	-97	0		53.15	48.9	54.54	55	
	-95	-6	0		52.59	59.3	60.14	70	
	-95	-6	0		52.59	51.1	54.92	55	
	-21	103	0		50.43	60.1	60.54	70	
	-21	103	0		50.43	48.3	52.50	55	

!

GB3096-2008 3

5.4

5.4.1

5.4-1

5.4-1

										t/a	
1							T/In	HW49	900-041-49	0.5	
2							T,I	HW12	900-252-12	1.38	
3							T,I	HW08	900-217-08	4	
4							T,I	HW12	900-252-12	2.4	
5							T/In	HW49	900-041-49	47.16	

										t/a	
6							T,I	HW08	900-249-08	10	
7							T	HW49	900-041-49	0.41	
8							T/In	HW49	900-041-49	10	
9							T	HW11	900-013-11	50	
18							/	/	/	70	
19							/	/	/	1	
20							/	/	/	1.9	
22					/		/	/	/	106	

5.4.2

1

40m^2

GB18597-2023

GB18597-2023 5.4-2

5.4-2

/			
	7	6	
		1 3m	

12 60 10

/			
GB18597		4.0m 1	
	1m ≤ -7cm/s 2mm 2mm ≤ 10- 7cm/s	Mb ≥ 6.0m K ≤ 1.0 × 10^{-7}cm/s	

2

5.4-3

5.4-3

		HW49		900-041-49				1
		HW12		900-252-12				1
		HW08		900-217-08				1
		HW12		900-252-12				1
		HW49		900-041-49				1
		HW08		900-249-08				1
		HW49		900-041-49				1
		HW49		900-041-49				1
		HW11		900-013-11				1

	12	60	10

$40m^2$

40t

125.85t/a 1 $40m^2$

5.4.3

HJ 2025-2012

5.4.4

1

$40m^2$

GB18597-2023

2

5.4.5

“ ”

GB18597-2023

5.5

5.5.1

5.5.1.1

100m

6

1

(K)

(E) 120-280m

2

80-250m

5.5-1

5.5-1

		(m)		(m)	
	Q4	7-50		2-15	
	Q3	30-150		20-120	
	Q2	20-100	1-2	65-150	1-2
	Q1	30-150		15-180	

5.5.1.2

5.5-1

-

- “ ”

-

J-E

5.5-1

5.5.1.3

1

6.5.1-2

5.5-2

1

5 10m

10 50m^3/d 50 100m^3/d

10m3/d 1 3m 0.3 1.5m

5 10m 30 60m 5 20m

50 200m^3/d

20m 500m^3/d

1g/L

2

Q3 1 3

40 60m

20m

1000m^3/d - - 60m

2000 3000m^3/d 20 60m

1000 2000m^3/d

10 25m

- - 1 2g/L

C1·HCO 3-Ca·Na

0.5 0.9g/L HCO3-Na·Ca

3

Q2

80 160m

6.5.1-3 6.5.1-4

30m

2000m^3/d - - 10m

500m^3/d 10 30m

500 2000m^3/d

50 m

5.5-3

5.5-4

0.15 0.61g/L

HCO3-Na·Ca HCO3-Na 6.5.1-5

5.5-5

4

150 180m

10 30m

1000m^3/d

100 1000m^3/d

0.5 0.8g/L HCO3-Na·Ca

6.5.1-2

5.5-2

				m	m	m
	/	Q_4		/	6 13	8 12
		Q_3^2		5 10	30 60	5 20
		Q_3^1		40 60	/	20 60
		Q_2^1		80 160	/	10 30
		$Q_1^2 \sim Q_1^1$		150 180	/	10 30

2

1

0.1 0.12

2011

2

3

3

1

1 3m 0.3 1.5m

2

1 2

10 15m 1.0 2.5m

6.5.1-6

8m

5.5-6

4

1 2m 1m

5.5.2

5.5.2.1

5

1.80

2.40m 2.01m

1 1 3cm

3.7 4.5m 4.1m

1

1.7 3.2m

2.41m

3-1

2.1 5.2m 3.56m

3-2

2.7 6.0m 4.08m

3-3

7.8 10.4m 9.13m

8.4 9.8m

9.12m

5.5.2.2

HJ610-2016

5 5

6.5.2-1

6.5.2-2

5.5.3

5.5.3.1

1

2

COD SS

>1

COD

COD 5000mg/L

5.5.3.2

5.5.3.3

10d 100d 300d 1000d

5.5.3.4

-

HJ610-2016

x— m

t— d

C—t x mg/L

C0— mg/L

u— m/d

DL— m^2/d

erfc ( )—

5.5-3

	K cm/s *	*	*
	2.89×10-4	0.3	0.13%

*

5.5-4

	U(m/d)	**DL(m2/d)**	**m mg/L**
	0.0011	0.02	5000

5.5.3.5

6.5.3-3

5.5-5 (mg/L)

		8m	16m	26m	52m	78m	104	130m	180m
100	mg/L	3.55	5.44E-08	0	0	0	0	0	0
		1.18	1.71E-08	0	0	0	0	0	0
1000	mg/L	1540	187	3.08	2.27E-08	0	0	0	0
		513	62.3	1.03	7.6E-09	0	0	0	0
10	mg/L	3130	1550	448	2.21	4.59E-04	3.89E-09	0	0
		1043	517	149	0.74	1.53E-04	1.3E-09	0	0
20	mg/L	3760	2530	1300	85.4	1.22	3.50E-03	1.98E-06	0
		1253	843	433	28.5	0.41	1.17.50 E-03	6.6E-07	0

GB/T14848-2017

COD

COD COD

100 COD 10m

		12	60	10
8m	1000	COD		33m
26m	10	COD		64m
50m	20	COD		93m
73m				

5.6

1

2

12	60	10

3

4

“ ”

5 /

5.7

5.7.1

6.7.1

5.7-1

12 60 10

		T15		
		E:120.80481648		N:31.60485430
		UTS22010138EN-584	UTS22010138EN-585	UTS22010138EN-586
		0-0.3m	0.3-0.8m	0.8-1.2m
		5%	10%	5%
	mV	353	326	307
	pH	8.16	8.27	8.14
	$cmol^+/kg$	18.5	20.3	17.2
	( )/ cm/s	6.6×10^{-6}	5.8×10^{-6}	5.3×10^{-6}
	/ kg/m^3	1.95×10^{3}	1.95×10^{3}	1.94×10^{3}
	%	43.2	43.1	43.6

5.7.2

5.7-2

5.7-3

			COD SS	/	

5.7.3

1

200

2

20

3

4

5

GB36600-2018

6

8.7.3

E

E

$$\Delta S = n(I_s - L_s - R_s)/(\rho_b \times A \times D)$$

-- g/kg

Is-- g

268m,

2.75E-05t/a,

0.000012t/a

Ls—

g 0

Rs--

g 0

-- kg/m^3 1.95×103 kg/m^3

A— 1780226m^2

D— 0.2m

n— 1a

0.0000173g/kg

Sb— g/kg

S— g/kg

ND,

44.04198mg/kg

1

5.8

5.9

5.9.1

1

NOx CO

2

2.5m/s TSP

2 2.5 150m

TSP 0.49mg/m3

40% 5m/s

TSP

5.9.2

5.8.2

5.9-1

	10 A dB A
	105
	82
	76
	84
	82
	82
	85

5.8.2

12	60	10

5.9.3

1

2

3

12 60 10

5.9.4

50

5.9.5

“ ”