
	2015-2030
	< >
	[2015]18
1	2001 6
	[2006]81
2	2008 1
	[2008]17
3	2015 11
	[2015]131
	33 5
	1
6	[2006]81
	2008 1
	[2008]17
	2015 11
	[2015]131

1

2019

29

(2012)

2012

12.7

[2018]74

33 5

[2020]1

3.3

1-2

1-2

			km²	km
			68.34	N 3.3

2

2020

2020

PM₁₀ PM_{2.5}

GB3095-2012

2018

GB3838-2002 IV

GB3096-2008 3

3


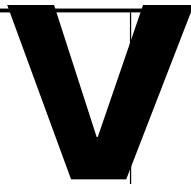
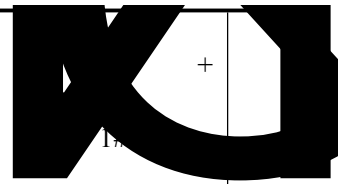

4

33 5

				3.3km
				[2015]19
				[2014]209
				[2017]162
				6
				[2017]162
				[2018]141
				[2020]78
				1-3
				1-3
				C3032
				4061
		/		0.18
			1025 /	0.018 /
		/	546 /	

		1		
		2		
				2020
1-4				
1-4				2020
1		2019		2019
2	2012	2013	2013	2012
3		2012 2012		2012 2012
4	2013	2013	2013 2013	
5		2020		2020
6		[2020]49		[2020]49
7				

8	[2015]118		[2015]118
3			
	15	1#	263
		263	
	2020		[2020]33
1-5	2020		[2020]33
	VOCs		VOCs
	VOCs	VOCs	VOCs
	VOCs		
	VOCs	+	15
		1#	

	 <p>VOCs</p>	<p>15</p> 	<p>+</p> 
---	---	---	--

	VOCs		
	VOCs		
5	45 2019 VOCs	VOCs	15m
[2018]98			
		3	PM _{2.5}
2020	SO ₂ NO _x VOCs	2015	22%
PM _{2.5}	48μg/m ³		72.8%
		2015	25%
15	1#		

+

95%

15

90%

1#

[2017]124

1-7

	2019	2019		
	2013			
		GB18918-2002 A	1	

	VOCs [2020]11	VOCs [2020]4	
1-8	VOCs VOCs		
1	VOCs DB12/ 524-2014 GB37822-2019 VOCs	VOCs (DB32/4041-2021)	
2	VOCs	VOCs	
3	VOCs	+ 15 1#	
4		+ 15 1#	
5	VOCs	VOCs	
6			

VOCs

[2021]2

1-9

VOCs

1

2019 12

2020 1 8

[2020]1

2020 12 30

15

17

33 5

[2021]179

2021

30

303

2

33 5

30

50000

30

300

8

3

2-1

		m ² /a	
	3.2m×1.6m	30	2400h

4

2-2

			/
1		150	4
2		1600	2
3		6	2
4		16	1
5		BZC8050-A4B1D2W1G	2
6		FG-200	4
7		2	1
8		SIY	1
9		-	2
10		-	3
11		-	2
12		ZY	1
13		8m*3m*2.5m	2

5

2-3

1		SiO ₂	1500	150		
2			240	20		
3			2.2	0.15		
4		1,1- -2-	2.2	0.15		

2-4				
	SiO ₂	SiO ₂	7	2.65
		1-20	1.6-1.8	20-200
		1.5		
		KOH	1750	
	/	190-220		LD ₅₀ 265mg/kg LD ₅₀ 12mg/m ³ /4h
		146	-30.6 1.06-1.18	
		3.6		
	/	250	100	LD ₅₀ 2000mg/kg
1,1-				
-2-	/	80	95	
6				
2-5				
				13000m ²

		250m ²
		80m ²
		300m ²
		1950t/a
		360t/a
		40 /a
		+ +
		+15 1#
		60m ³
		50m ²
		10m ²

7

33 5

3

4

13000

5

8

a.

30

300

(GB50015-2019)

30-50L

50L/L

450t

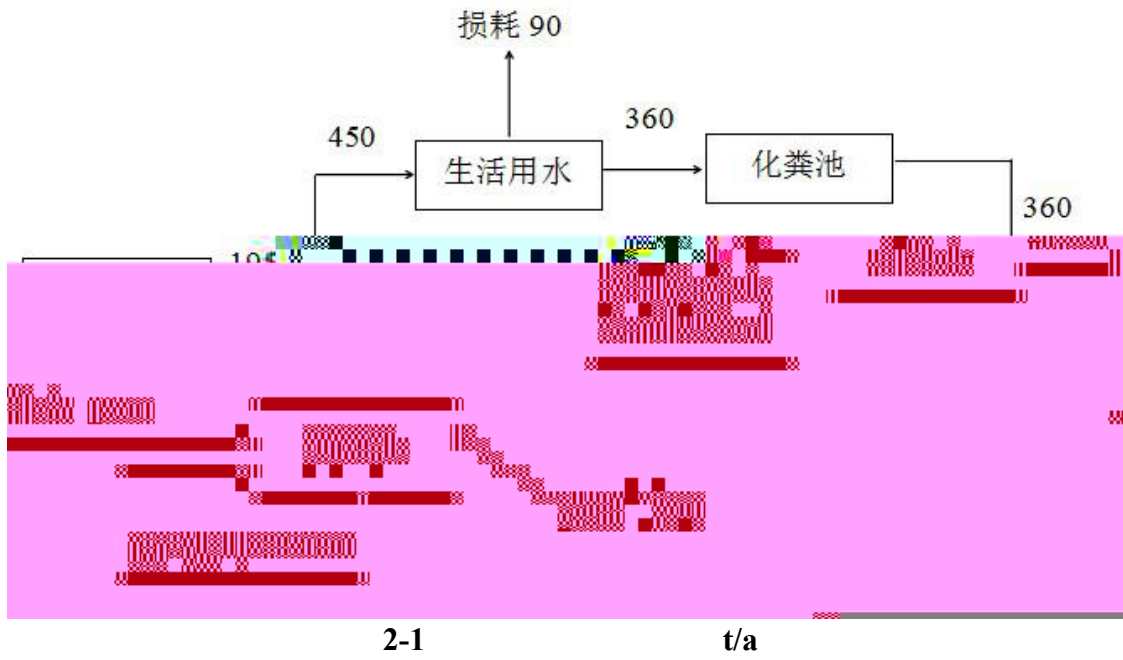
80%

360t

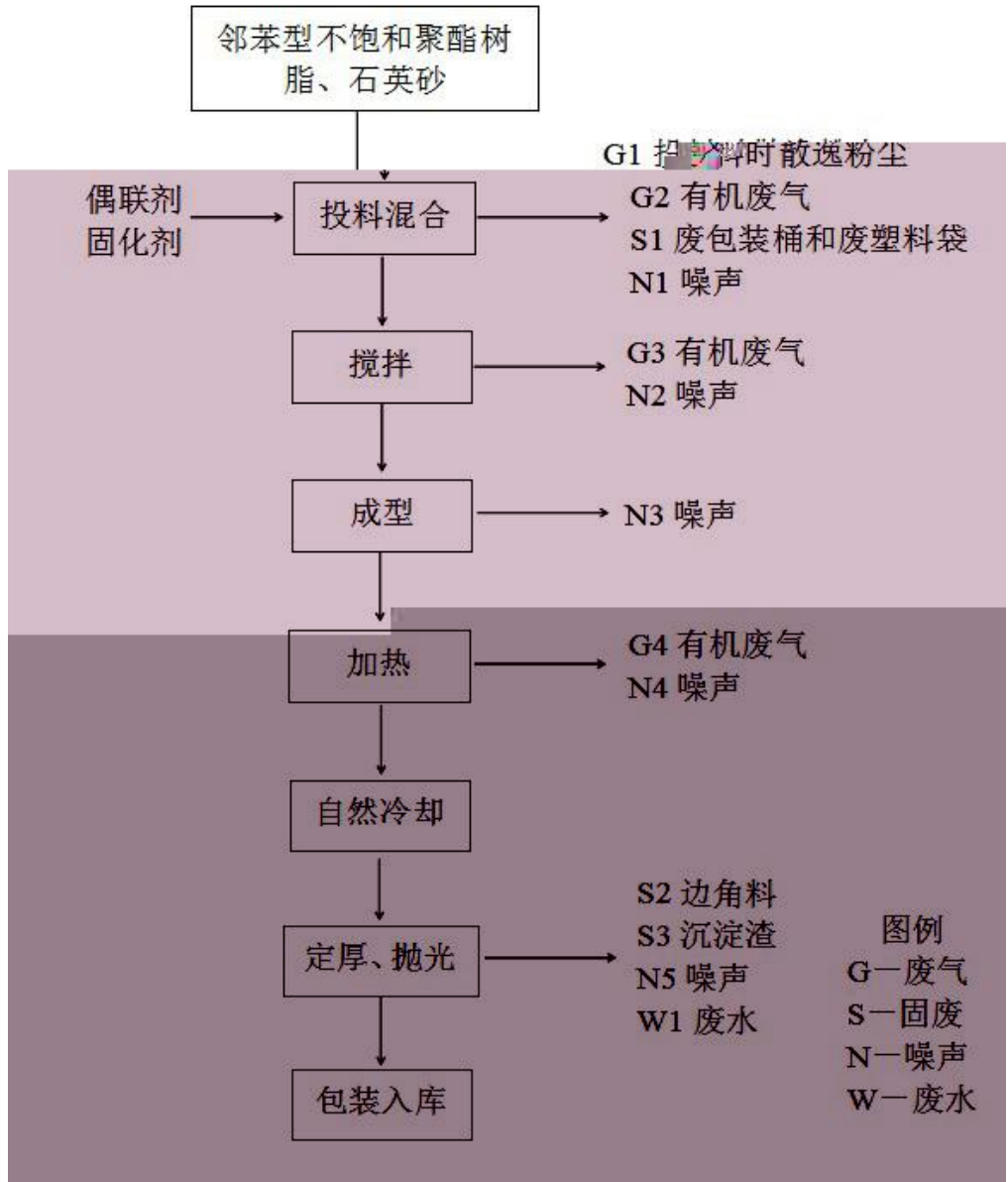
50m³

5m³/d

b.



1



2

1

G1

G2

S1

N1

2

G3

N2

图例
 G—废气
 S—固废
 N—噪声
 W—废水



PHOTOGRAPHY

2020.10.24	1#		2.7	0.0249
			2.4	0.0240
			2.5	0.0246
			2.5	0.0245
			≤120	≤3.5
2020.10.23	/			
	1#		1.22	0.0108
			1.25	0.0110
			1.25	0.0113
			1.24	0.0110
		≤120	≤10	
2020.10.24	1#		1.22	0.0113
			1.23	0.0123
			1.18	0.0117
			1.21	0.0118
			≤120	≤10

2-9		mg/m ³					
		G1	G2	G3	G4		
2020.10.23		0.100	0.200	0.217	0.184		
		0.100	0.184	0.200	0.200		
		0.133	0.234	0.217	0.250		
		0.184	0.250	0.234	0.217		
			0.250				
			≤1.0				
2020.10.24		0.1147	0.250	0.184	0.234		
		0.083	0.184	0.200	0.200		
		0.100	0.234	0.250	0.184		
		0.083	0.217	0.200	0.217		
			0.250				
			≤1.0				
2020.10.23		0.98	1.08	1.06	1.06		
		0.91	1.096	1.05	1.06		
		0.96	1.058	1.07	1.14		
		0.94	1.09	1.08	1.10		
			1.14				
			≤4.0				

2020.10.24		0.91	1.08	1.05	1.02
		0.98	1.07	1.03	1.00
		0.97	1.14	1.04	1.04
		0.96	1.06	1.06	1.01
		1.14			
		≤4.0			

2020 10 23 -10 24

COD SS NH₃-N TP TN

2-10

2-10

mg/L

			pH	COD	SS	NH ₃ -N	TP	TN
2020.10.23			7.01	70	36	32.5	2.72	43.4
			7.05	68	38	31.3	2.66	43.0
			7.07	70	36	30.8	2.69	44.3
			7.03	66	35	30.6	2.76	43.2
		/	7.01-7.07	68.5	63.3	31.3	2.71	43.5
			6-9	≤500	≤400	≤35	≤8	≤45
2020.10.24			7.03	62	37	30.4	2.68	43.7
			7.07	64	35	31.1	2.66	44.1
			7.02	66	36	30.3	2.72	44.6
			7.05	67	37	31.4	2.68	43.3
		/	7.02-7.07	64.5	63.3	30.8	2.69	43.9
			6-9	≤500	≤400	≤35	≤8	≤45

2020 10 23 -10 24

A

GB12348-2008 3

2-11

2-11

Leq dB A

		2020.10.23	2020.10.24
1m	▲	58.2	57.7
1m	▲	56.1	56.2
1m	▲	57.8	58.3
1m	▲	61.5	62.6

	-	≤65	≤65
	-		

2-12 2-13

2-12

kg/h

h

1

1

2020

2020

3-1

3-1 2020

SO ₂	(μg/m ³)	10	60	
NO ₂	(μg/m ³)	33	40	
PM _{2.5}	(μg/m ³)	44	35	
PM ₁₀	(μg/m ³)	76	70	
O ₃	8 (μg/m ³)	106	160	
CO	24 (mg/m ³)	0.827	4	

2020

SO₂

NO₂

O₃

8

CO 24

GB3095-2012

PM_{2.5}

PM₁₀

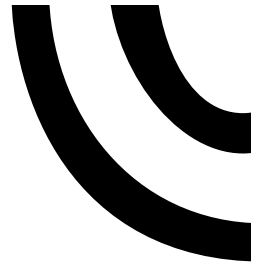
GB3095-2012

2020-2021

VOCs

2020

VOCs



2

MST20200305007

2020 3 11 -2020

3 20

2

G1

2.88km G2

2.82km 82

2
2020
2020
2020
(GB3838-2002)
3
GB3096-2008
3
2020
Leq 55.2dB(A) L₁₀ 62.6dB(A) L₅₀
51.0dB(A) L₉₀ 47.0dB(A)
GB3096-2008 3
4
5

3-4							
X		Y					
671130.40	3777627.39			150 /450	GB3095-201 2	NE	350m
UTM							
3-5							
				km			

		N	3.5		GB3838-2002
	50				GB3096-2008 3
		N	3.3	68.34km ²	
		SW	12.7	10.14km ²	

1

DB32/4041-2021 1

GB14554-93 2

DB32/4041-2021 3

GB14554-93 1

DB32/4041-2021 2 3

3-6

	mg/m ³	m	kg/h	mg/m ³	
	20	15	1	0.5	
	60	15	3	4	DB32/4041-2021 1 3
	/	15	6.5	5	GB14554-93 1 2

3-7

	mg/m ³			
	6	1h		
	20			DB32/4041-2021 2

2

GB18918-2002 1 A

3-8 mg/L pH

pH	6-9	6-9	1 GB18918-2002 A
COD	≤500	≤50	
SS	≤400	≤10	
NH ₃ -N	≤35	≤5 8 *	
TP	≤8	≤0.5	
TN	≤45	≤15	

* 12 ≤12

3

GB12348-2008 1 3 3-9

3-9

	dB A	dB A	
3	65	55	GB12348-2008

4

GB18599-2020

GB18597-2001

2013 36

[2019]327

3-10			t/a			
			0.36	0.324	/	0.036
			0.031	0.028	/	0.003
			0.043	0.039	/	0.004
			0.02	0	/	0.02
			0.0016	0	/	0.0016
			0.002	0	/	0.002
	360t/a	COD	0.18	0.036	0.144	0.018
		SS	0.144	0.018	0.0126	0.0036
		NH ₃ -N	0.0126	0	0.0126	0.0018
		TP	0.0018	0	0.0018	0.00018
		TN	0.0144	0	0.0144	0.0054
			4.5	4.5	/	0
			5	5	/	0
			50	50	/	0
			7.5	7.5	/	0
			1.41	1.41	/	0
			0.1	0.1	/	0
			0.43	0.43	/	0
			0.1	0.1	/	0
			0.02	0.02	/	0
1	360t/a COD 0.18t/a SS 0.144t/a NH ₃ -N 0.0126t/a TP 0.0018t/a TN 0.0144t/a 360t/a COD 0.018t/a SS 0.0036t/a NH ₃ -N 0.0018t/a TP 0.00018t/a TN 0.0054t/a					
2	0.036t/a 0.004t/a 0.03t/a 0.02t/a 0.002t/a 0.0016t/a					
3						

--	--

--	--	--	--	--	--	--	--	--	--	--	--

UTM

DB32/4041-2021 1

≤20mg/m³

≤1kg/h

≤60mg/m³

≤3kg/h

GB14554-93 2

≤6.5kg/h

2

4-3

		t/a	t/a	(kg/h)	
		0.02	0.02	0.0083	
		0.0016	0.0016	0.0006	
		0.002	0.002	0.0008	

4-4

	m		(m)	(m)	(m)	/o	(m)	h			kg/h
	X	Y									
											0.0083
											0.0006
	67072 6.23	37773 44.51	9	176	76	0	12	2400			0.0008

UTM

DB32/4041-2021 3

GB14554-93 1

GB/T39499-2020

$$\frac{Q_c}{C_m} = \frac{1}{A} (BL^C + 0.25 r^2)^{0.50} L^D$$

Q_c — kg/h

C_m —
mg/m³

L — m

r — m

A B C D —

4-5

		Q _c kg/h	A	B	C	D	C _m (mg/m ³)	L m	L m
		0.0083	470	0.021	1.85	0.84	0.45	0.206	50
		0.0006					5.0	0.001	50
		0.0008					2.0	0.002	

100

100

2

+

15

1#

4-1

5 μ m

20-50 μ m

5-10 μ m

GB/T 6719-2009

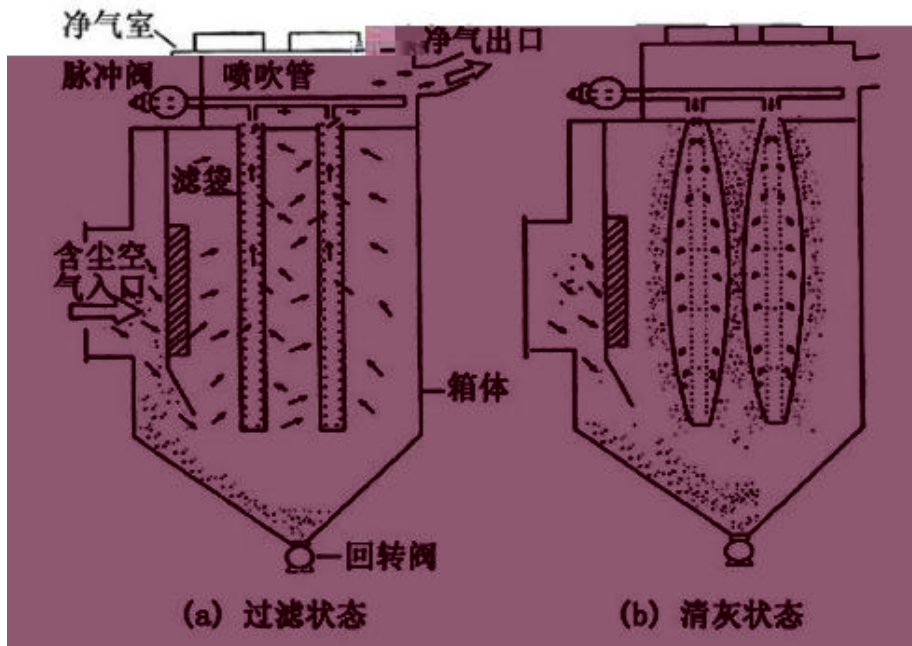
() 99%

99%

99%

HJ1119-2020

A A.4



4-1

1A=10-10m
700-2300m²/g

500A

<50A

VOC

75%

90%

HJ1119-2020

A

A.4

3

0%

4-6

			mg/m ³	kg/h	h		
1#			25	0.15	0.5	1	
			2.18	0.013	0.5	1	
			3	0.018			

a

b

c

4

2020

100

+

15

1#

DB32/4041-2021 1

GB14554-93 2

5

2019

30

303

3031

3032

3033

3034

3039

HJ942-2018

HJ819-2017

4-7 4-8

4-7

1#		1 /	DB32/4041-2021 1
		1 /	
		1 /	GB14554-93 2

4-8

		1 /	DB32/4041-2021 3
		1 /	
		1 /	GB14554-93 1

2

1

360t/a

4-9

	(t/a)									
		(mg/L)	(t/a)		(mg/L)	(t/a)	(mg/L)	(t/a)	(mg/L)	(t/a)
360	COD	500	0.18		400	0.144	400	0.144	50	0.018
	SS	400	0.144		350	0.0126	350	0.0126	10	0.0036
	NH ₃ -N	35	0.0126		35	0.0126	35	0.0126	5	0.0018
	TP	5	0.0018		5	0.0018	5	0.0018	0.5	0.00018
	TN	40	0.0144		40	0.0144	40	0.0144	15	0.0054

COD 400mg/L SS

350mg/L NH₃-N 35mg/L TP 5mg/L TN 40mg/L

2

3 m³/d

4.9 m³/d

5.1 m³/d

4:1

1

26.5

205

+ + A2/O

+ +

3

33 5

13 m³/d

1.2m³/d

4

4-10

	(a)	(b)	(c)	(d)				(f)	(g)
						(e)			
1		COD SS NH ₃ -N TN TP			TW0 1			DW001	

a
b
c

d

e
f

4-11

		(a)		/					(b)	
										mg/L
1	DW 001	118 51 5.072	34 7 22.746	0.036			/		COD	50
									SS	10
									NH ₃ -N	5
									TN	15
									TP	0.5

a
b

6

4-12

			mg/L	
			COD	500
			SS	400
1	DW001		NH ₃ -N	35
			TN	45
			TP	

4		1	75		20	55	
5		2	75		20	55	
6		4	70		20	50	
7		1	70		20	50	
8		3	70		20	50	
9		1	80		20	60	
10		1	80		20	60	
11		1	80		5	75	

24cm

()

24cm

520kg/m²

52-54dB A

20dB A

1

$$L_x = L_n + L_w + L_s$$

L_x dB(A)

L_n dB(A)

L_w dB(A)

L_s dB(A)

$$L_s = 20Lg(r/r_0)$$

r

m

r₀

1m

2

4-16

dB A

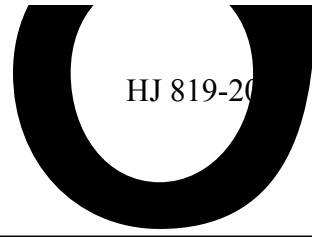
				/	()			
		4	70	20	45	33	17	34
		2	70	20	45	33	17	
		2	75	20	120	42	13	
		1	75	20	120	42	13	
		2	75	20	60	36	19	
		4	70	20	60	36	14	
		1	70	20	40	32	18	
		3	70	20	70	37	13	

		1	80	20	45	33	27	
		1	80	20	115	41	19	
		1	80	5	175	45	30	
		4	70	20	60	36	14	40
		2	70	20	65	36	14	
		2	75	20	65	36	19	
		1	75	20	65	36	19	
		2	75	20	65	36	19	
		4	70	20	65	36	14	
		1	70	20	55	35	15	
		3	70	20	60	36	14	
		1	80	20	65	36	24	
		1	80	20	60	36	24	
		1	80	5	60	36	39	
		4	70	20	130	42	8	
		2	70	20	130	42	8	
		2	75	20	55	35	20	
		1	75	20	55	35	20	
		2	75	20	115	41	14	
		4	70	20	115	41	9	
		1	70	20	135	43	7	
		3	70	20	105	40	10	
		1	80	20	130	42	18	
		1	80	20	60	36	24	
		1	80	5	5	14	61	
		4	70	20	15	24	26	53
		2	70	20	10	20	30	
		2	75	20	10	20	35	
		1	75	20	10	20	35	
		2	75	20	10	20	35	
		4	70	20	10	20	30	
		1	70	20	20	26	24	
		3	70	20	15	24	26	
		1	80	20	10	20	40	
		1	80	20	15	24	36	
		1	80	5	15	24	51	

65dB(A)

(GB12348-2008) 3

4



4-17

	1m	A	1 /

4

1

5t/a

50t/a

7.5t/a

0.1t/a 1.41t/a

6.6t/a

0.1t/a

0.1t/a

0.043t/a

30										0.5kg	
4.5t/a											
2											
GB34330-2017											
4-18											
4-18											
										t/a	
1									5	√	/
2									50	√	/
3									7.5	√	/
4									1.41	√	/
5									0.1	√	/
6									6.6	/	/
7									0.1	/	/
8									0.1	/	/
9									0.43	√	/
10									0.1	√	/
11									0.02	√	/
12						/			4.5	√	/
GB34330-2017										6.1	
a											
3											
4-19											
										t/a	
1								/	/	/	5

2						20 21	/	46	300-0 01-46	50	
3					/		/	/	/	7.5	
4					/		/	900-9 99-66	1.41		
5					/			/	0.1		
6					T/In		HW4 9	900-0 41-49	0.43		
7					T I		HW0 8	900-2 14-08	0.1		
8					T/In		HW0 8	900-2 49-08	0.02		
9			/		/		/	900-9 99-99	4.5		

4-20

				t/a					
1		HW49	900-041- 49	0.43				90	T/In
2		HW08	900-214- 08	0.1					T I
3		HW08	900-249- 08	0.02				90	T/In

4

(GB18599-2020)

5

7

GB18597-2001

GB18597-2001

6

10m²

[2019]327

[2019]327

4-21

[2019]327

1

0.55t/a

2

1

8

9

10

[2019]327

1

HJ 169-2018 C

B

Q

Q

Q

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

q₁ q₂ ... q_n

t

Q₁ Q₂ ... Q_n

t

Q < 1

Q ≥ 1

Q

1 1 ≤ Q 10

2

10 ≤ Q 100

3

Q ≥ 100

Q

4-22

	q _i	t	Q _i	q _i /Q _i
	20		100	0.2
	0.15		100	0.0015
	0.15		100	0.0015
	0.43		/	/
	0.1		2500	0.00004
				0.20304

Q=0.20304 1

2

4-23

SO₂ NO_x

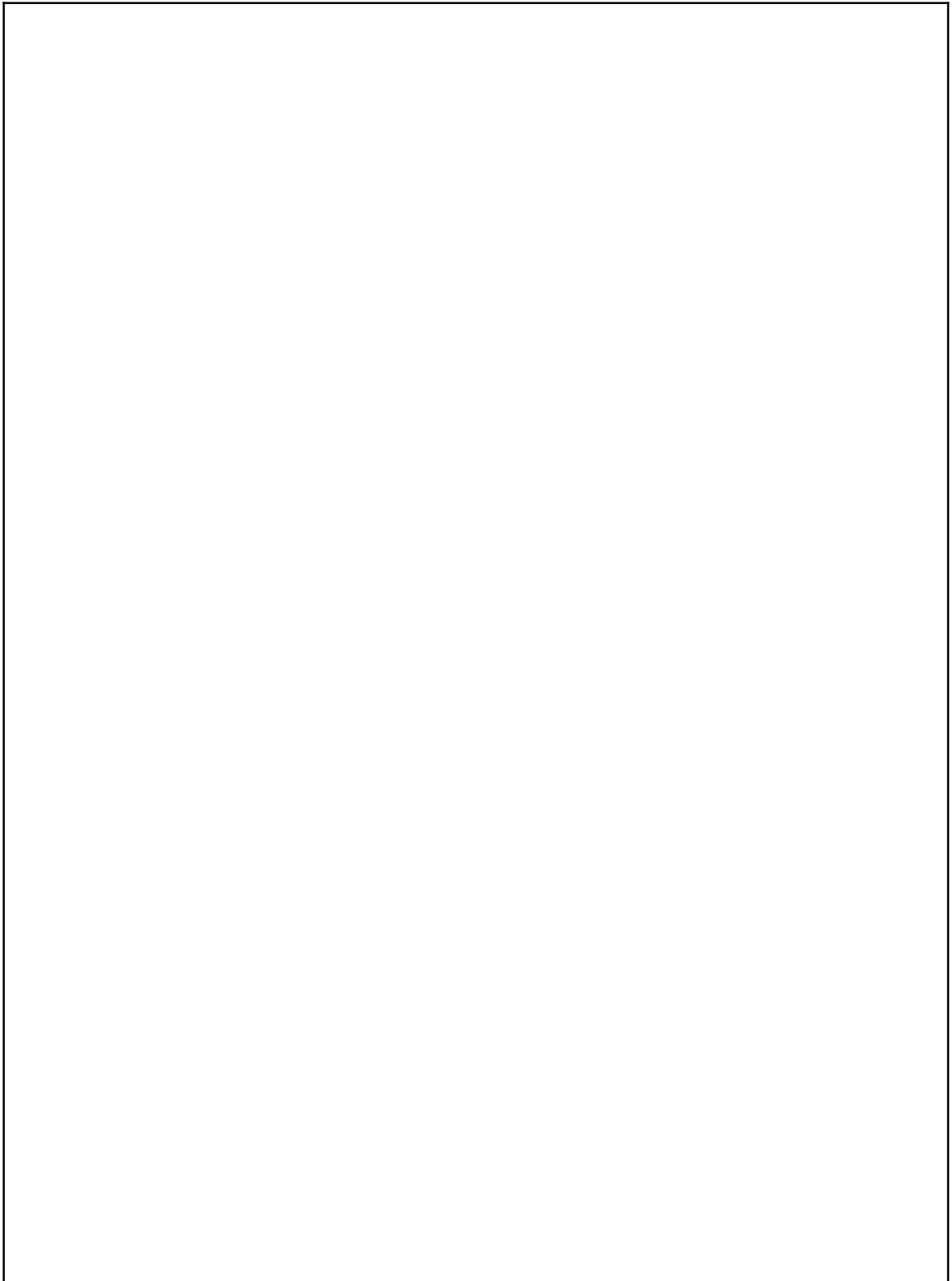
3

GB18597-2001

4

	33 5
	118 51 5.072 34 7 22.746
	SO ₂ NO _x

	/					
	1#		+	DB32/4041-2021 1		
				+15	GB14554-93 2	
				1#		
					DB32/4041-2021 3	
						GB14554-93 1
		COD SS NH ₃ -N TP TN		GB18918-2002 1 A		
		A		(GB12348-2008) 3		
	/					
	10m ²	2013	36	GB18597-2001 [2019]327		
	50m ² GB18599-2020					
	GB18597-2001					
	/					
	1	2				



			0	0	0	0.036	0	0.036	0.036
			0	0	00	0.003	0	0.003	0.003
			0	0	0	0.004	0	0.004	0.004
			0	0	0	0.02	0	0.02	0.02
			0	0	0	0.0016	0	0.0016	0.0016
			0	0	0	0.002	0	0.002	0.002
			0	0	0	360	0	360	360

	COD	0	0	0	0.18	0	0.18	0.18
	SS	0	0	0	0.144	0	0.144	0.144
	NH ₃ -N	0	0	0	0.0126	0	0.0126	0.0126
	TP	0	0	0	0.0018	0	0.0018	0.0018
	TN	0	0	0	0.0144	0	0.0144	0.0144
		0	0	0	5	0	5	5
		0	0	0	50	0	50	50
		0	0	0	7.5	0	7.5	7.5
		0	0	0	1.41	0	1.41	1.41
		0	0	0	0.1	0	0.1	0.1
		0	0	0	0.43	0	0.43	0.43
		0	0	0	0.1	0	0.1	0.1
		0	0	0	0.02	0	0.02	0.02

= + + - = -

1

2

3

4

500m

5

1

2

3

4

5

6

7

8

[2008]17

9

[2015]131

10

11

12

13

14

15

16

17