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لج 53.6 45 26 54.02 45 119

	1 2022-2035 2 3 2024 7 15 4 2022-2035 2024 204
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GB28665-2012 3

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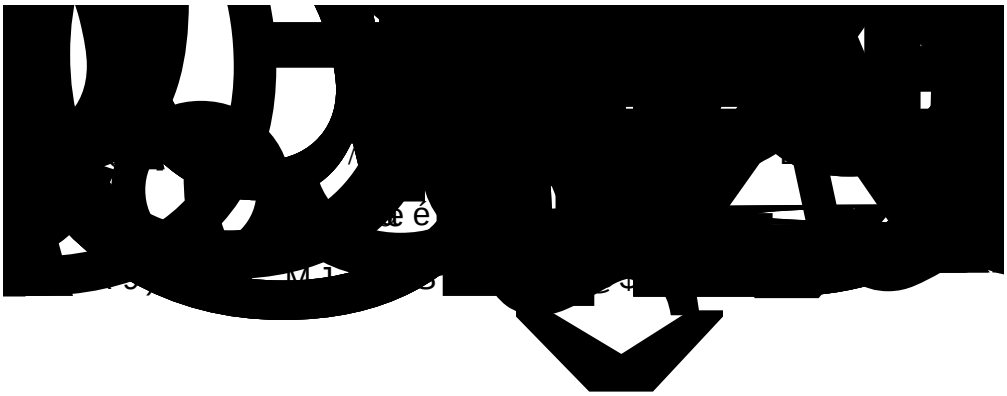
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SO_2 832.23 / NOx 775.97 / 909.46 /

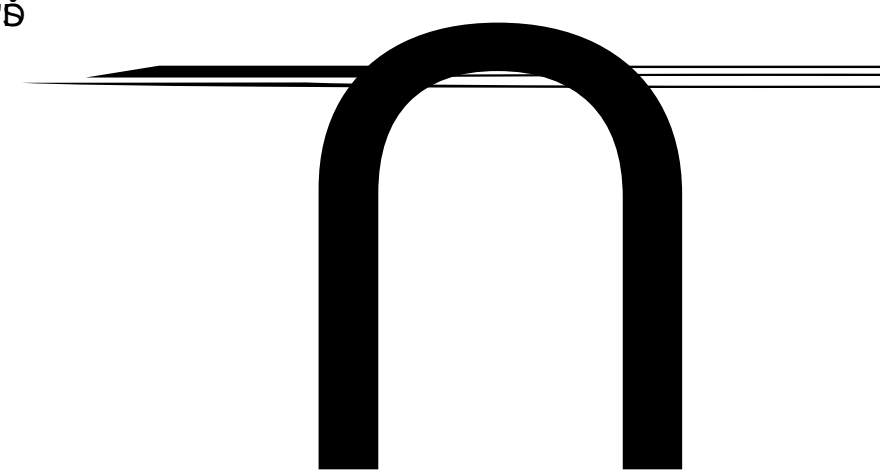
2. 2035 SO_2 3131.28 / NOx 7110.10 / 5030.58 / VOCs 189.68 / א я

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	2024 “ ” “ ” “ ” 2026 J020069 2012 2012 2022-2035



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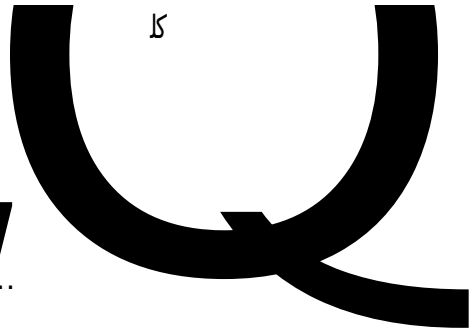
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2017 3 27 2017 49

10 50 200 / כ 95%

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HJ169-2018

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2.1

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2026 J020069

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1200

7 15

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330

2.1.3

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1 2

1 1

2.1.1

1

2 1 1 1200m^2

1 1 1 20-25t/h

1

2

1 2 2

• + +

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300

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1 Φ1.1m

H=25m

+ + E÷

		1	1600m^3		1	2700m^3		
		1	3200m^3					

2.1.4

2

2.1.5

2.1.2

	*				
	Φ40mm	Φ50mm	Φ60mm	Φ80mm	
	28000	40000	41000	41000	150000

*

2.1.3

	/%						
	Cr	Mn	Ni	C	Si	Mo	Fe
	4.90-5.20	≤1.10	≤1.10	0.85-0.95	0.40-0.70	≤0.10	≤91

YB/T 091-2019

2.1.4

mm	mm	%	HRC	HRC
Φ40	+2 -1	≤2	≥60	≥52
Φ50	+2 -1	≤2		
Φ60	+3 -1.5	≤3		
Φ80	+3 -1.5	≤3		

2.1.6

2.1.5

1		21m Ĭ7.6m,20-25t/h	1	
2		Φ190mm	1	
3		Φ190mm	1	
4		30m Ĭ2.2m	2	
5			2	
6		/	2	
7		/	1	

2.1.7

2.1.6

t/a	15.23	/
/a	15	
t/a	0.15	/
m^3/a	7000	/

300m^3/h 24 7200m^3/d

0.3m^3/t 25t/h

180m^3/d 59400m^3/a

180m^3/d 59400m^3/a

2

2.1.8.2

1

2

+ +

3

2.1.8.3

1

15

2

10 m^3

10 m^3 2.1.9

3

4

15

5

6

1 1600m^3 1 2700m^3

1 3200m^3

2.1.9

2.1.8

	t/a			t/a
	152284			150000
				761
				1523
	152284			152284

2.1.10

10 m^3

237600 m^3/a 207000 m^3/a

2.1.9

	m^3/a		m^3/a	%
	207000		30000	14.49
		+	15000	7.25
			60000	28.99
			21000	10.14
			16000	7.73
			10000	4.83
			14000	6.76
			5000	2.42
		+	16000	7.73
			12000	5.80
			7000	**3.38**
			1000	0.48
	207000		207000	100.00%

2.2

2.2.1

1

9

2.2.2

2.2.1

	G1	SO_2 NOx	
	G2	SO_2 NOx	25m
	W1	SS	
	W2		+ +
		/	
	S1	/	
	S2	/	
	S3	/	
	S4	/	
	S5	/	
	S6	/	
	S7	/	
	S8	/	
	S9	/	

2.3

2.3.1

2015 12

100 300 50

30 1.5

10

2.3.1

2 100 100 4 300

2013 37

1 1

2014 3

1 3

2017 9 30

1 50 20 8

50 6

2015 45 2017 9 20

2

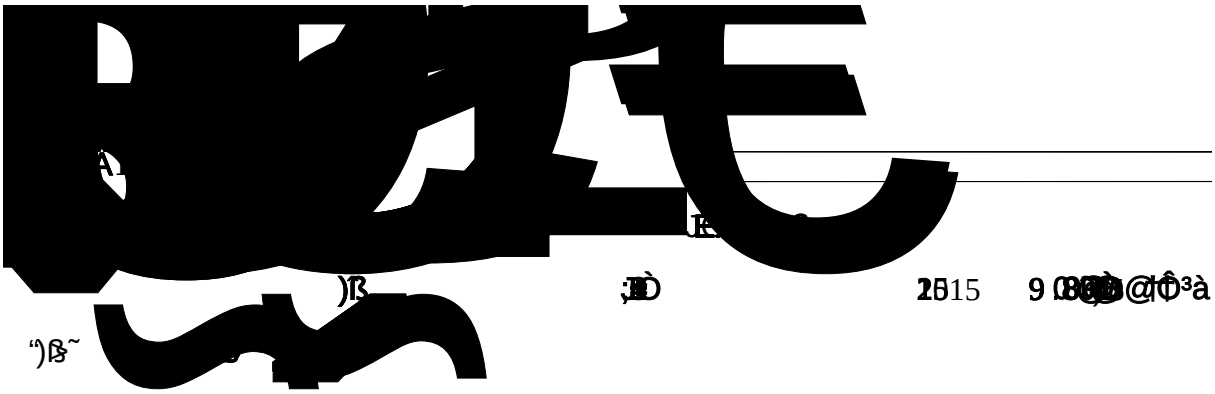
2020 5 14

1 30 t/a 30 t/a

2016 5 1 30 t/a 1 30 t/a

15000t/a 15000t/a

2018 3



2.3.1

1 60t/h

2.3.2.2

1100

φ65 φ105mm

4.6 5

2.3.2

	G1		SO_2 NOx
	W1		
	W2		
	S1		
	S2		
	/		

2.3.2.3

1

SO_2 NOx

2 25m

2 +

3

2019 4 5

2019 35

2019 12

2019 922

2.3.3

"

1

2

100

“ ”

GB 28665-2012 4

2.3.4

2.3.10

	SO_2 t/a	NOx t/a	SO_2 t/a	NOx t/a	SO_2 t/a	NOx t/a
	12.6	36	15.12	84.02	12.6	36

1

2019 922

2025 9

2025 9

0.3384t/a SO_2

6.624t/a NOx 18.000t/a SO_2 NOx

≤ 9.5 / SO_2 ≤ 12.6 / NOx ≤ 36.0 /

2

0.5342t/a SO_2 2.0226t/a NOx

19.596t/a

≤ 9.5 / SO_2 ≤ 12.6 / NOx ≤ 36.0 /

2.3.5

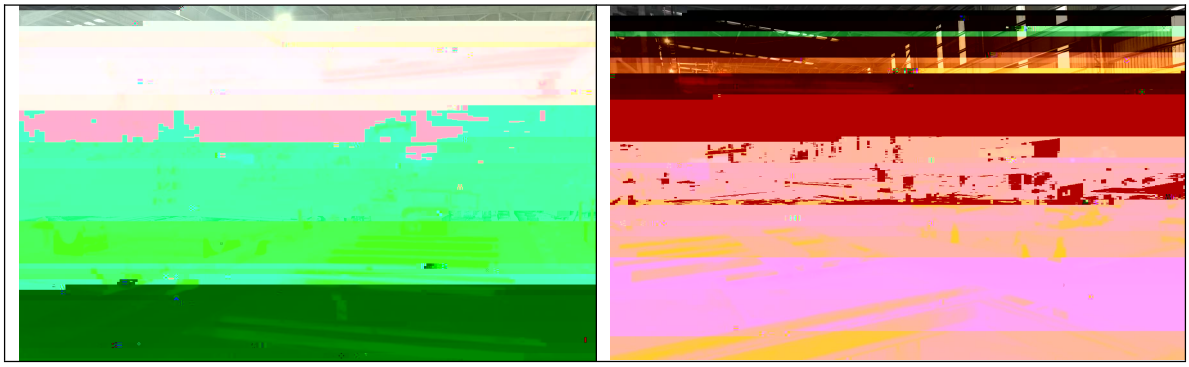
2.3.11

1	HJ1478-2026 2026 8 15 10 3 5 1	10
2	HJ846-2026 2027 1 1	HJ846-2026
3		

3.1

3.1.1

1 3.1.1



3.1.1

3.1.2

3.1.2.1

2025 3.1.1

3.1.2 6 SO_2 NO_2 CO

O_3 PM_{10} $PM_{2.5}$ GB3095-2012

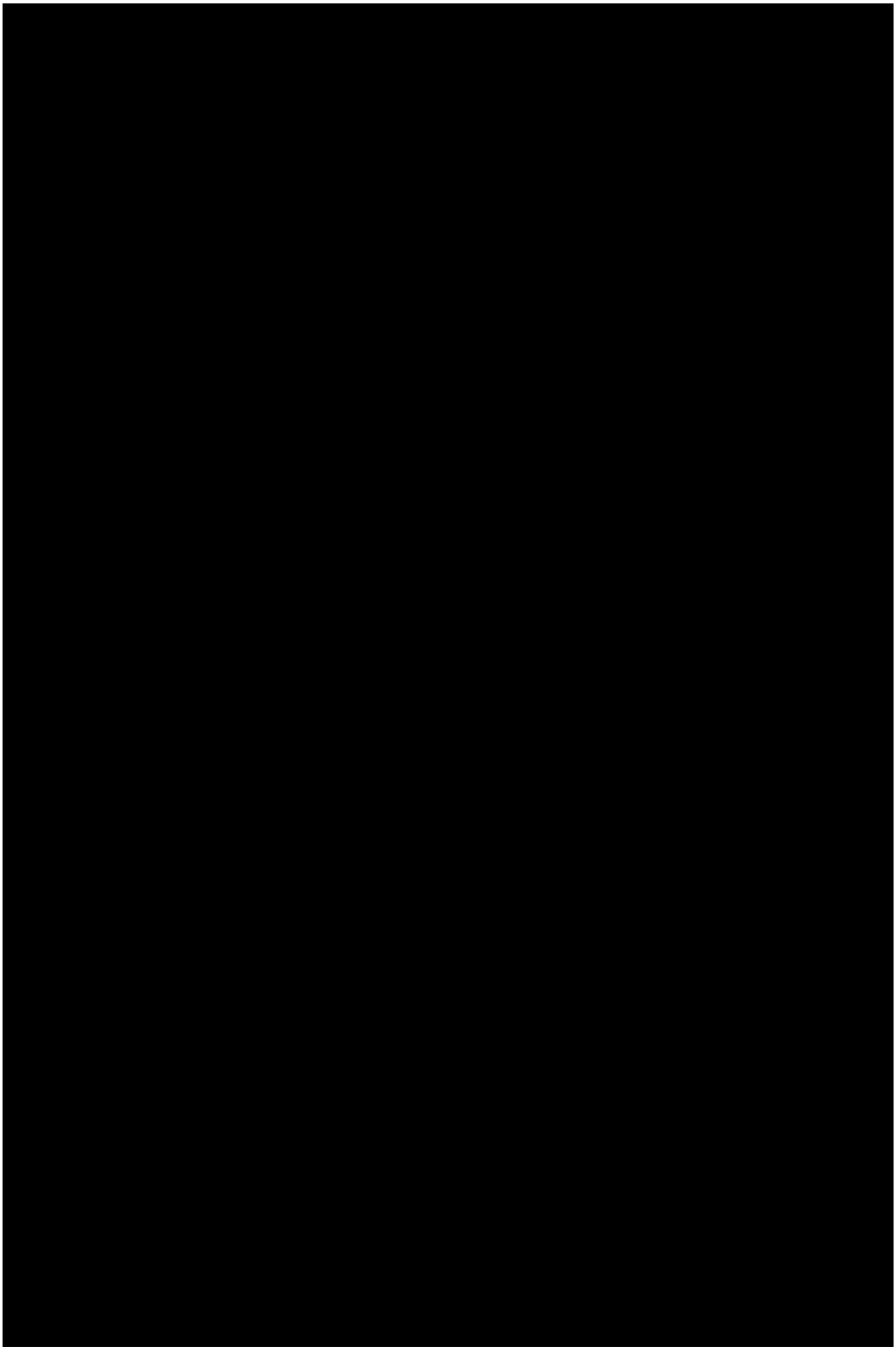
GB 3095-2026 2026 3

1 2025 GB3095-2012

3.1.1 2025

		%	%	%
	365	98.6	53.4	45.2
	365	99.5	71.0	28.5
	365	100	76.4	23.6
	365	100	96.7	3.3
	365	100	78.1	21.9
	365	99.7	95.9	3.8
	365	99.7	69.9	29.9
	365	99.7	77.8	21.9
	365	99.2	65.5	33.7
	3285	**99.6**	**76.1**	**23.5**

3.1.2 2024 2025



C_{oi}——i mg

S_i——

Si≥1 i Si

4

TSP

GB3095-2026 1

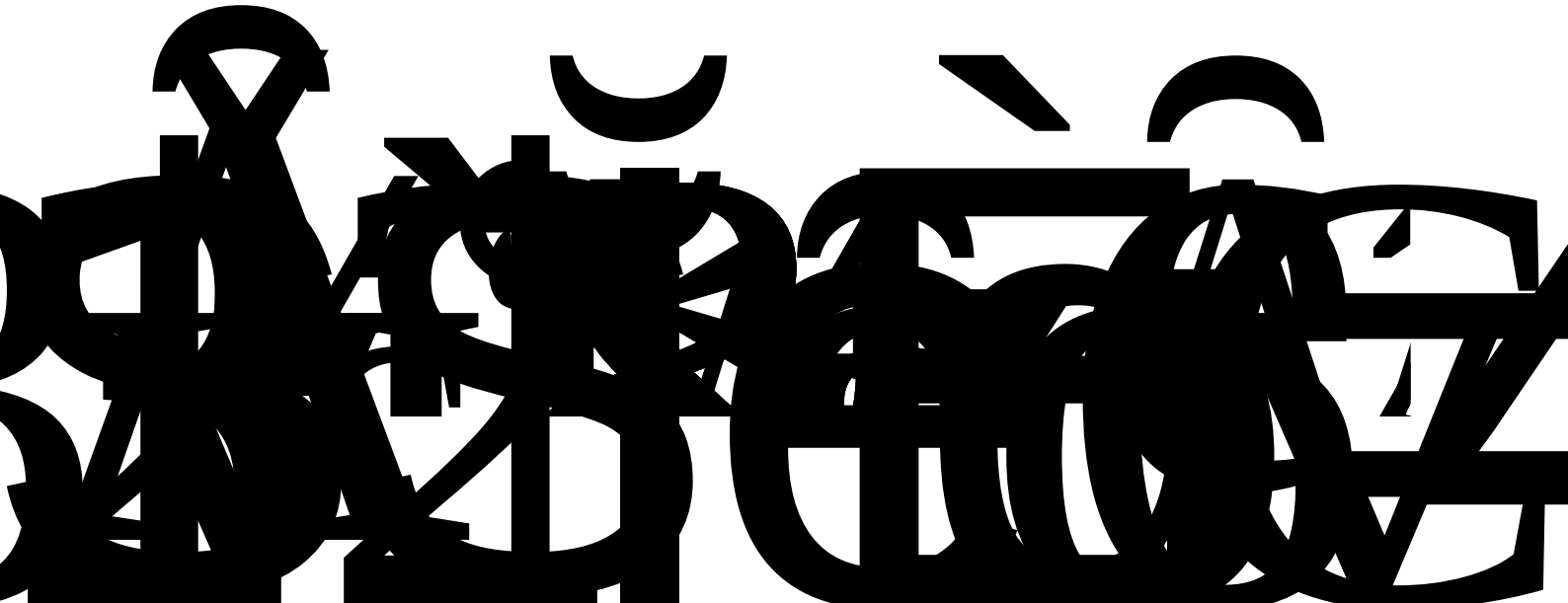
SO_2 SO_2 GB3095-2026

1

NO_2 NO_2

GB3095-2026 1

GB3095-2026 2 . 3



2

3.1.7

pH	pH HJ 1147-2020	PHB-4 pH JW-S-192	/
	4 4.1 - GB/T 5750.4-2023	/	5
	HJ 1075-2019	WZB-172E JW-S-511	0.3NTU
	4 GB/T 5750.4-2023	7.1 /	/
	4 GB/T 5750.4-2023	6.1 /	/
	EDTA GB/T 7477-1987	JW-G-32	5.0mg/L
	9 DZ/T 0064.9-2021	BSA224S-CW JW-S-250	2mg/L
	4- HJ 503-2009	P1 JW-S-254	0.0003mg/L
	GB/T 7494-1987	721G JW-S-64	0.05mg/L
N	F- Cl- NO2- Br- NO3- PO43- SO32- SO42- HJ 84-2016	IC6100 JW-S-223	0.003mg/L 0.007mg/L 0.006mg/L 0.018mg/L
N	GB/T 7493-1987	721G JW-S-64	0.003mg/L
O2	7 4.1 GB/T 5750.7-2023	JW-G-30	0.05mg/L
	52 - DZ/T 0064.52-2021	UV-1600 JW-S-03	0.002mg/L

3.1.9

		E	N	
S1	5m	119.769460°	26.771143°	0-50cm
S2	1m	119.762037°	26.770147°	2m
S3		119.761285°	26.769883°	0-50cm
S4	2.7m	119.763403°	26.767706°	0-50cm
S5	1m	119.763856°	26.769381°	0-50cm
S6				

	605-2011	JW-S-474	1.0μg/kg
1,1-			1.2μg/kg
1,2-			1.3μg/kg
1,1-			1.0μg/kg
-1,2-			1.3μg/kg
-1,2-			1.4μg/kg
			1.5μg/kg
1,2-			1.1μg/kg
1,1,1,2-			1.2μg/kg
1,1,2,2-			1.2μg/kg
			1.4μg/kg
1,1,1-			1.3μg/kg
1,1,2-			1.2μg/kg
			1.2μg/kg
1,2,3-			1.2μg/kg
	/ - HJ 605-2011	8860GC+5977CMSD JW-S-474	1.0μg/kg
			1.9μg/kg
			1.2μg/kg
1,2-			1.5μg/kg
1,4-			1.5μg/kg
			1.2μg/kg
			1.1μg/kg
			1.3μg/kg
- + -			1.2μg/kg
-			1.2μg/kg
			0.4μg/kg
	- HJ 834-2017	GCMS-QP2010SE JW-S-119	0.09mg/kg
			0.008mg/kg
2-			0.06mg/kg
[a]			0.1mg/kg
[a]			0.1mg/kg
[b]			0.2mg/kg
[k]			0.1mg/kg
			0.1mg/kg
[a,h]			0.1mg/kg
[1,2,3-cd]			0.1mg/kg

3

GB 36600-2018

3.1.5

4

3.3.1

			mg/m^3		
1			15		GB28665-2012 3
2			150		
3			300		
4			8%		
5			10		2019 35 *
6			50		
7			200		
8			8%		
1				5.0	GB28665-2012 4

* 95%

COD NH_3-N SO_2 NOx

+ +

SO_2 NOx

1 NO

.3.4 ”

2024

NOx 36.0t/ 43.2 /

84.02

/ 40.82 / “ 4.2.1 ”

4.2.3 NOx 28.512t/a 1.2 34.214 /

SO_2 6.624t/a



4.1

4.1.1

4.1.1.1

1

CO 60 80mg/m^3 THC 80 100mg/m^3

2

CO CO_2 O_3 NO_X CH_4 CO

4.1.1.2

1

GB 18352.6-2016

GB14762-2008

GB17691 2018

2

4.1.2

4.1.2.1

1

COD BOD_5 SS NH_3-N

10

100L/

· 80% 0.8t/d

2

3

1

0.3t

SS

4.1.2.2

1

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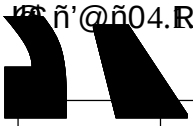
a.

b. SS

4.1.3

4.1.3.1





4.1.1

				dB A	m	
			1	80	5	
			3	86	1	

23



2025-2026

1.1 5.5mg/m³ 40 105mg/m³

≤8mg/m³ NOx ≤120mg/m³

2019 35

2 “ ”

2

4.2.3

				Nm^3/h	mg/m^3	kg/h		%		Nm^3/h	mg/m^3	kg/h	/h	t/a	/	/m	/m
					8	0.24		-			8	0.24		1.901			
		SO_2		30000	5.9	0.18		-		30000	5.9	0.18	7920	1.400	150	25	Φ1.1m
		NOx			120	3.6		-			120	3.6		28.512			

4.2.4

	Nm^3/h		mg/m^3	kg/h		mg/m^3	kg/h			
	30000	SO_2	30	0.90		30	0.90	1h	1	

4.2.2

4.2.2.1

HJ846-2026 B B.1

HJ-BAT-006

4.2.5

HJ846-2026

“ ”

4.2.3

GB3095-2025

2025 ﻍ

4.2.7

SO_2 NOx

1 /

+ ”

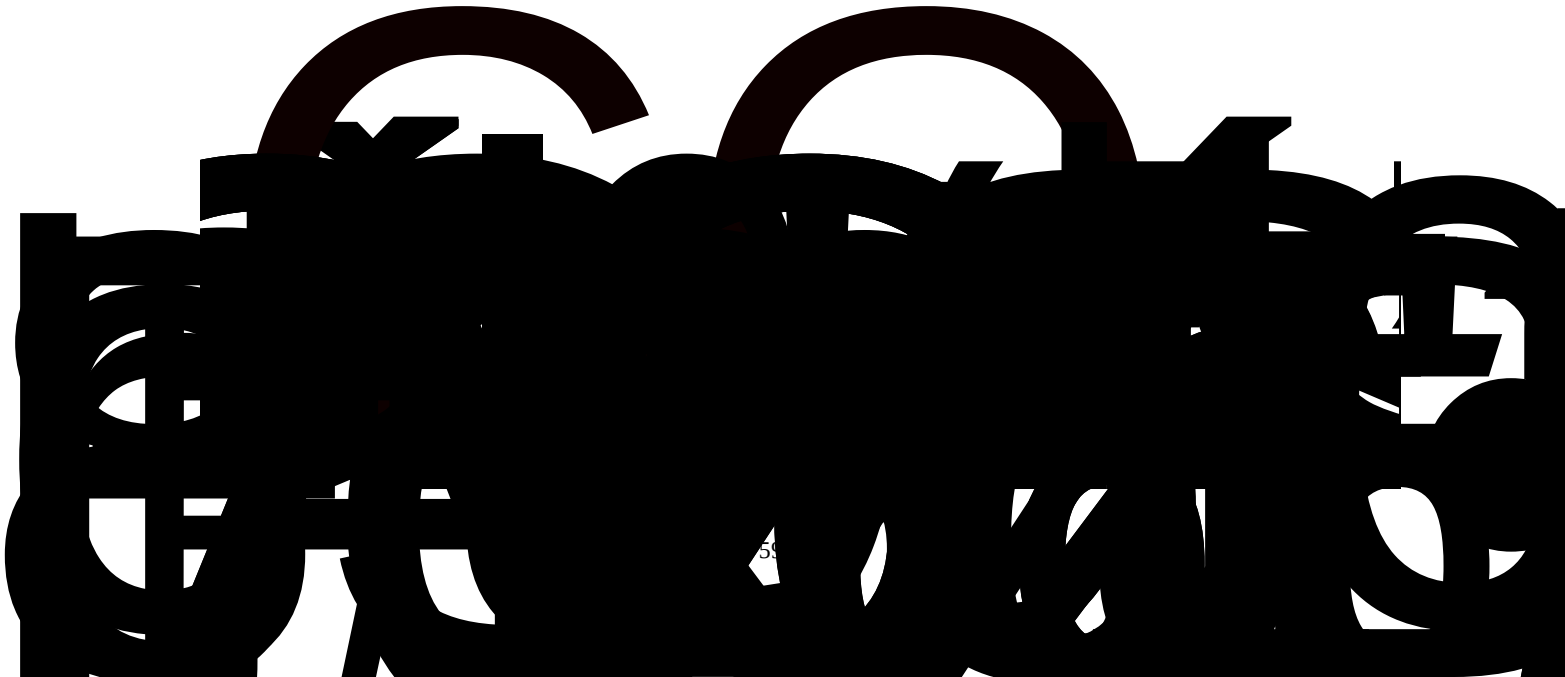
3

+Qà 9+O>‘ò$ Óé0Ò&@COD SS NH

4.3.3

4.3.4

HJ819-2017



5

4.4.4

4.5.1

								t/a	
S1				SW17 900-001-S17	Fe			1523	
S3									
S2				SW01 313-001-S01	Fe			761	
S6				SW07 900-099-S07	Fe		/		
S4				SW17 900-003-S17				1.5	
S9				SW59 900-003-S59	MgO CaO			3	
S5				HW08 900-210-08			T I	2	
S7				HW08 900-249-08			T I	0.02	
S8				HW49 900-041-49			T/In	0.01	

2

+

+

GB18597-2023

1 HJ 1276

2 HJ 1259

3

3

4

5

6

1m 10^{-7}cm/s 2mm

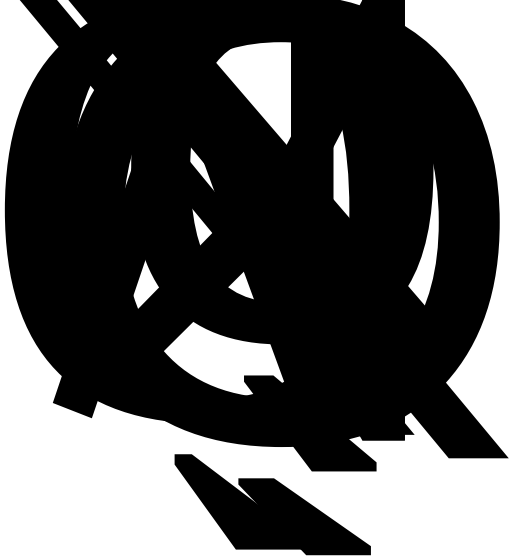
10^{-10}cm/s

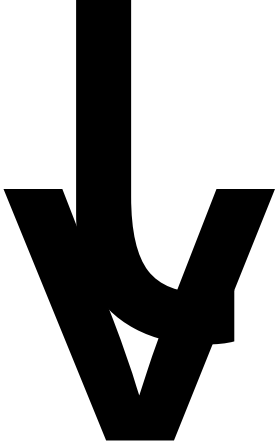
7

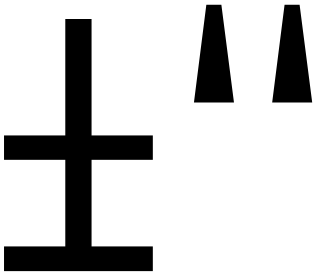
8

1/10

1







ㄱ ´

} 100m^2 50

2

4.6

4.7.1

		q_n/t	Q_n/t	Q
		0.02	2500	0.000008
		2	2500	0.0008
		0.185 *	7.5	0.025
				0.026

* DN1100 150m 1.30kg/m^3

Q 0.026<1

4.7.2

4.7.3

1

2015 4

1.

2. 100

3.

24

4.

5.

6.

CO

2

a

b

c

3

4

“ ”

“ ”

5

6

4.7.2

1			10		
2			10		
3			2		

4	3
5	1
6	3
7	2
8	50
9	3
10	5
11	10
12	2

1<o

20

4.7.4

2015 4

2015 102 “ ”

4.8

3000 100 3.33%

7.3.1

7.3.1



2 859018.49tCO_2

401681.23tCO_2 8362.73tCO_2

448974.53tCO_2

3 112305.18tCO_2

4.9.2

OFi %

4.8.2

	Nm^3	GJ/ Nm^3	tC/GJ	%	tCO_2
	7000	33.000	0.07080	100	59967.6

CO_2

E =AD ×EF +AD ×EF

E CO_2 tCO_2

AD AD

MWh GJ

EF EF CO_2

tCO_2/MWh tCO_2/GJ

4.8.3 **CO_2** #d8$f^ R" $ –d6 P 9cYT

	kWh	CO_2 * $kgCO_2/kWh$	tCO_2
	8500000	0.5306	4510.1

* CO_2 2023

2025 47 1 “ 2023

” 0.5306$kgCO_2/kWh$

4.8.4

tCO_2 ĩ

a

b

c

d

e

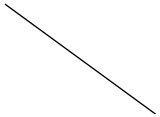
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	2017 4 2018 9 “ ” “ ” 5 20 2 48 2019 2017 84

2026 9



*

t/a

t/a

t/a t/a t/a t/a t/a t/a