Q/HYRD

Q/HYRD 209.25.Z09-2022

1 1
1.1 1
1.2 1
1.3 3
1.4 3
1.5 3
1.6 4
2 5
2.1 5
2.2 8
2.3 14
2.4 15
3 17
3.1 17
3.2 19
3.3 21
4 22
4.1 22
4.2 23
5 28
5.1 28
5.2 28
5.3 29
5.4 31
6 32
6.1 32
6.2 32
7 33
7.1 33
7.2 38
7.3 42
8 47
8.1 47
8.2 47
8.3 47

8.4 48
8.5 48
8.6 48
9 50
9.1 50
9.2 51
10 53
11 53
11.1 53
11.2 53
11.3 54
11.4 54
11.5 54
11.6 55
11.7 55
11.8 55
11.9 55
12 56
12.1 56
12.2 57
12.3 57
12.4 57
12.5 57
..... 58
1 58
2 60
3 61
4 62
5 64
6 65

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-- 3.2

/ /

2020 11 2022 6 1

“ ”

1.1

1.2

(1) 2015 1 1

(2) 2008 6

(3) 2016 1 1

(4) 1997 3 1

(5) 2016 11 7

(6) 2007 11

(7) 2014 12 1

(8) 2014 12 29 2014 119

(9) [2013]101

(10) 2011 4 18 . 17

(11) [2009]130

(12) < > [2010]113

(13) [2014]34

(14) HJ/T169-2004

(15) 2011 2

(16) ([2012]77)

(17) 6 2009

(18) 493

(19) 2016 88

(20) 591

(21) 2003 1

(22) GB/T 29639-2013

(23) GB18218-2009

(24) GB50016-2014

(25) ERG2000

(26)

(27)

(28) 2015 7 1

(29) 2010 7 1

(30) 2006-2020

(31) [2008]19

(32)

(2017 9)

(33) [2008]36

(34) [2008]49

(35) [2010]50

(36)

(37) 2004

27

(38) 2012

(39)

1.3

8 #6 7 8 9

1.4

1

2

3

4

1.5

1.5.1

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1.5.2

1.5.3

500 2000

1.5.4

I II III

1.6

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2.1

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—

380m 380m

210MW×2+330MW×2 108

80 300

/

492

5 13.9m^3

2.1-1

	#6	210MW	1998	1998 ——	
	#7	210MW	2002	2002 ——	
	#8	300MW	2007	2007	2009 12
	#9	300MW	2008	2008	[2009]323

2.1-2

	#6	#7	#8	#9

		680t/h	680t/h	1025t/h	1025t/h
		210MW	210MW	300MW	300MW
		+ SCR	+ SCR	+ SCR	+ SCR
		-	-	-	-
		180		210	

2.1.1

2.1-3

			m			
1			20		20	
2			300		730	
3			662		1256	
4			1000		2206	
5			2213		——	
6			2269		960	
7			2385		700	
8			2396		1800	
9			2541		877	
10			2789		5178	

1.3×10^6 / 460g/kwh

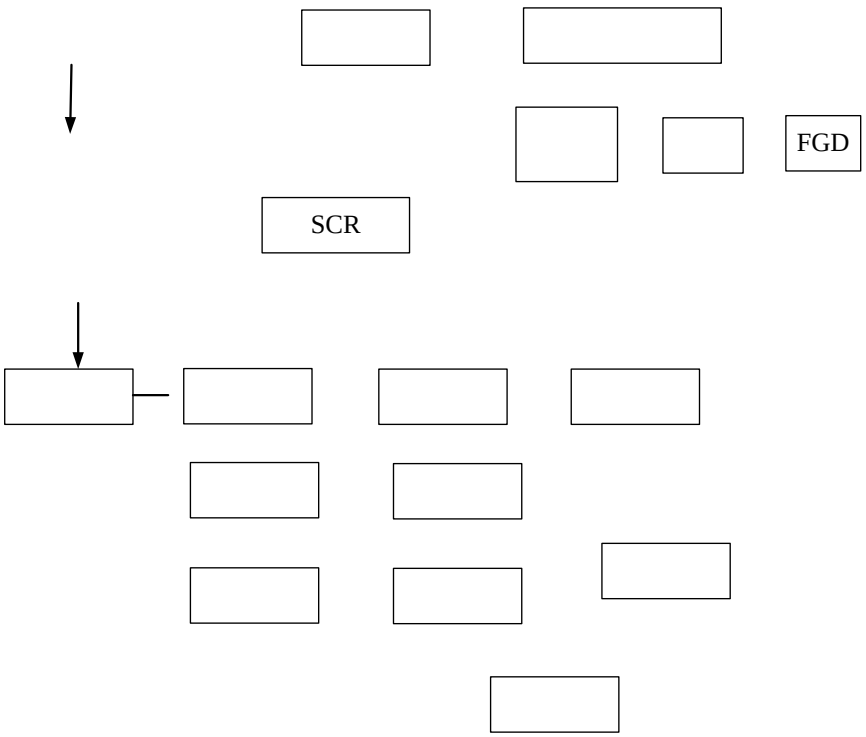
330g/kwh

2.1-4

%	%	%	MJ/Kg	MJ/Kg	%
11.12	19.35	24.99	21877.00	21060.67	0.75

2.1.2.2

#6 #7



2.2-1 #6 #7

#6 #7 + SCR

85%

NOx #6 7 SCR /

SCR

NH_3 290~400 NO NO_2 N_2

NH_3 N_2 NH_3 SCR

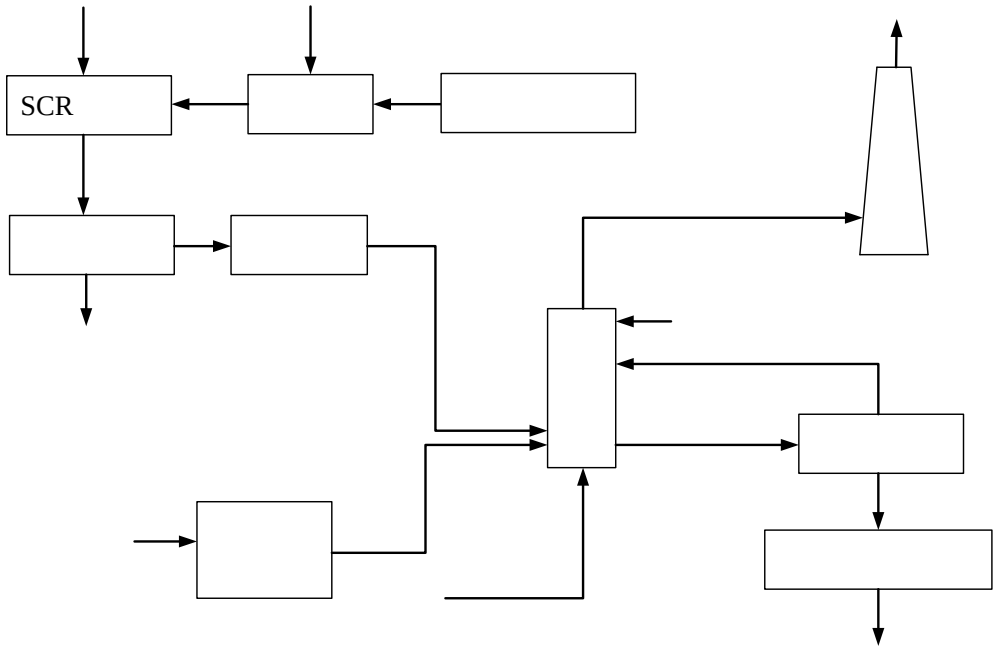
2 #6 7 SCR 2

#6 #7 — 90%

SO_2

$CaSO_4 \cdot 2H_2O$

50



2.2-2

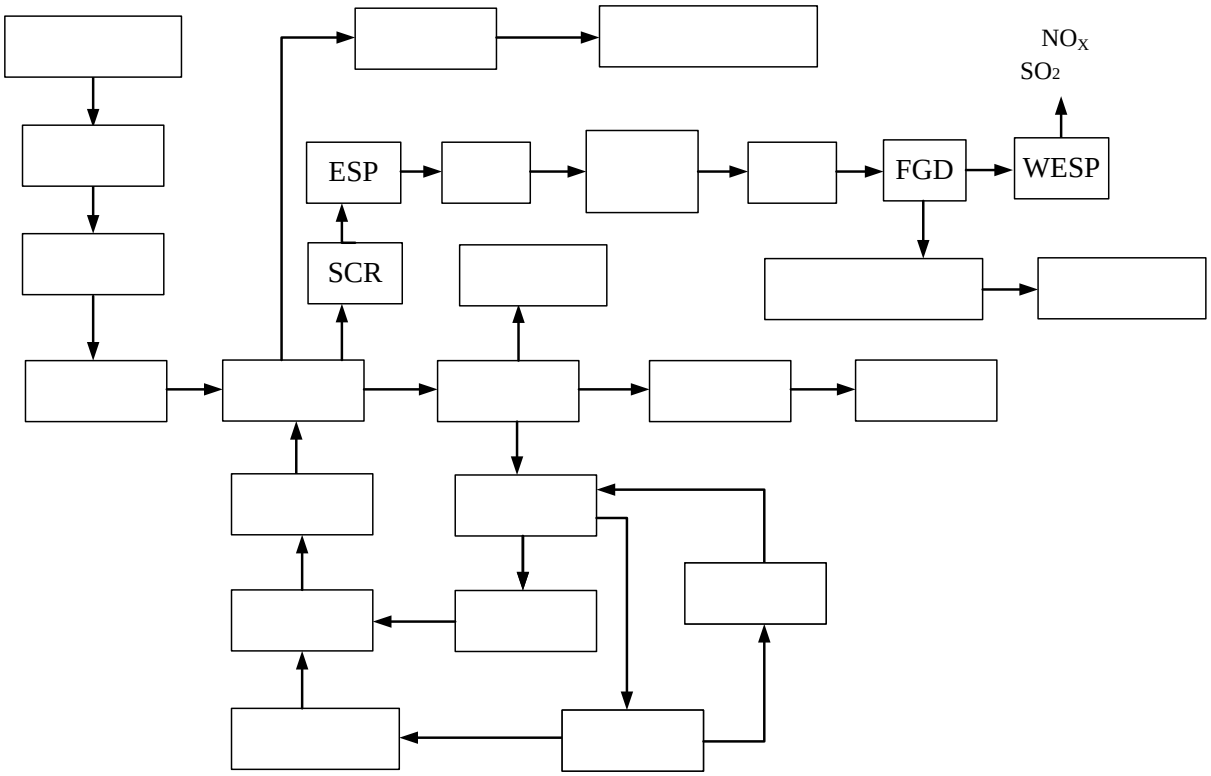
#6 #7

#6 #7 2.2-1

2.2-1 #6 #7 2×210MW

	DG680/13.7-20	2	
#6	N210-12.7/535/535	1	
#7	N210-12.7/535/535	1	
	QFSN-210-2	2	
	ZGM-80G	10	
	DPG40	10	
	2008AB/1040	2	
	CMF6N4.2D152	4	

	AH-R198SW(PAF)	2	
	LAP8650/883	4	
	FAF17-9-1	2	
	ML-H1-R85/172(FDF)	2	
	SAF25-18-1	2	
	SAF25-16-2	2	
	7LD1N-7-A	2	



2.2-3

#8 #9 +SCR

85%

NOx SCR /

SCR

#8 9 SCR 2 3

7790 × 12000 × 12600mm 3

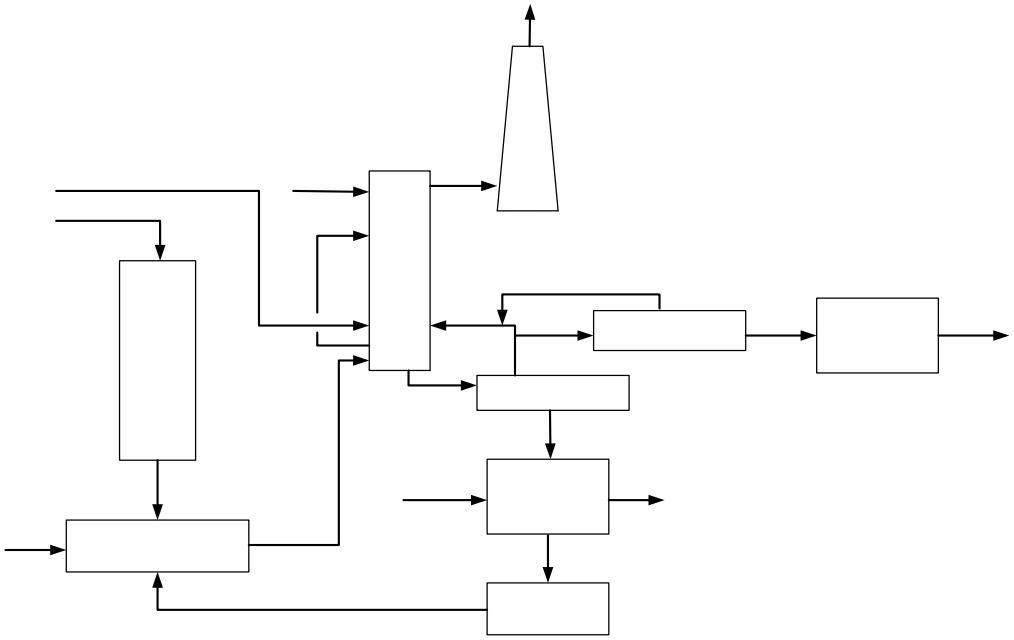
3

#8 #9 + +

- 1.5%

98.7% -

SO_2



2.2-4

#8 #9

2.2-2

2.2-2 **#8 #9 2×300MW**

	DG1025/18.2- 4	2	
	N300-16.7/537/537-8	2	
	QFSN-300-2-20B	2	
	ZGM95N	10	
	DPG50	10	
	2008AB/1135	4	
	LAP/0320/883	4	

	LEK259-3*4-2-2	4	
	3HE-140	4	
	Y315M-4	4	
	9-19NO.5A	4	
	IK-525SL	24	
	2031G	-	

2.3

2.3.1

2.

“ ”

- /

3. SO_2 NOx

- #6 #7

90% 50% #8 #9 1.5%

98.7% 50%

#6 #7 + SCR

#8 #9 + SCR

2.3.2

1 Ca^{2+} Mg^{2+} Cl- SO_4^{2-} SO_3^{2-} /

FGD 26.2t/h

2

2.3.3

1

2

GB12348-90III

2.3.4

4

8 8000m^3 6

/

/

100% 4

2.4

2.4.1

2.4.1.1

“ — — ”

50-300

45% 55%

433.6 382

2.4.1.2

3km

2.4.3

2.4-1

1		GB3838-2002
2		GB3095-2012
3		GB3096-2008 3
4		
5		
6		
7		
8		
9		
10		
11		

3.1

3.1-1

					H_2	
		2.1			2	
	UN	1049		21001	**CAS**	1333-74-0
					0.07	
		-259.2			-252.8	
		506.62 kPa (4.7)			132.5	
					11.40 MPa	
					——	

3.2

3.2.1.1

1

2

3

4

3			
4			/
5			
6			
7			
8			“ ”
9			

1			1
2			
3			
4			

1			
2			
3			

4			
5			GIS
6			

1			
2			
13			

3.2-2

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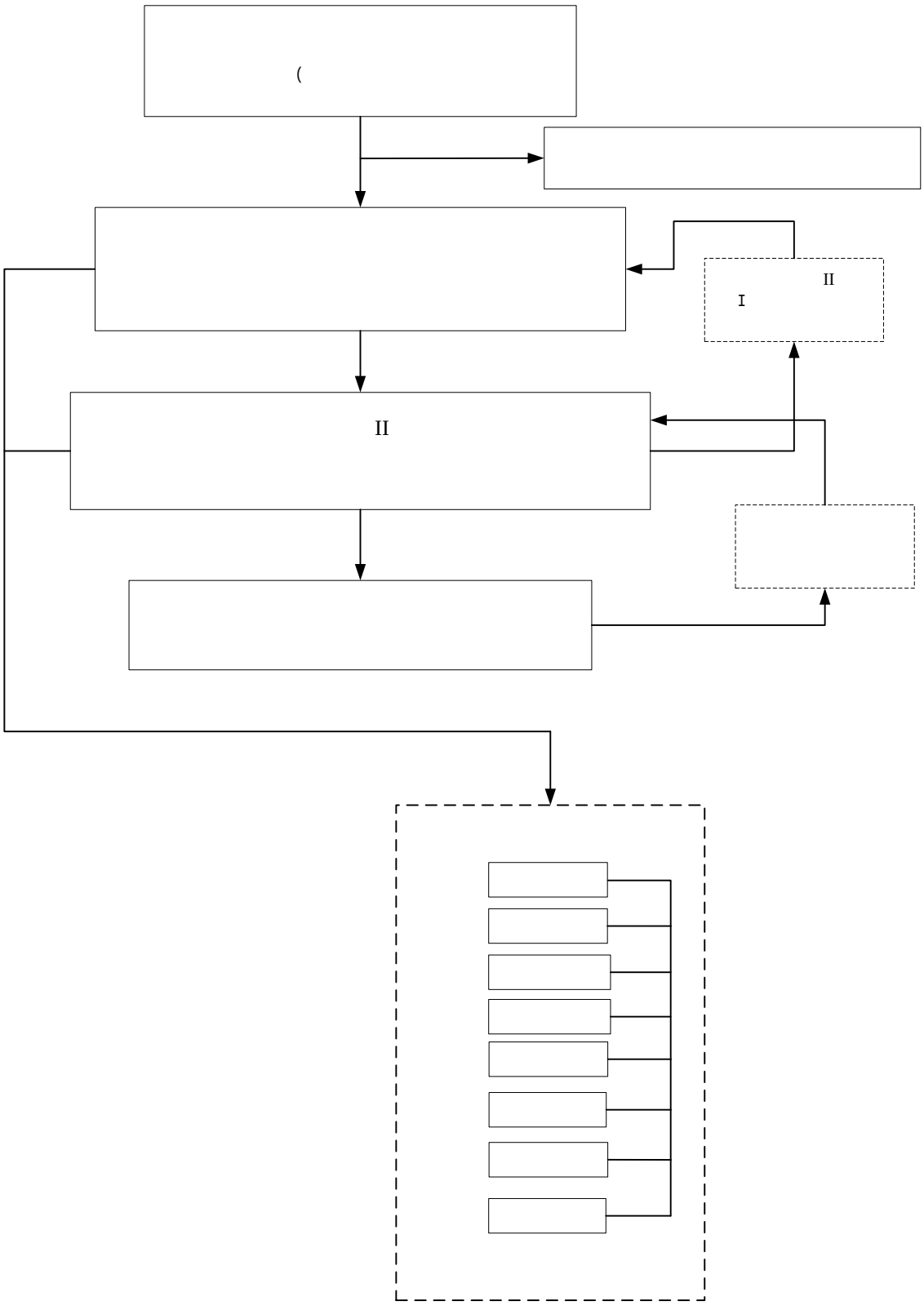
				/	/	
				/	/	
				/	/	
				/	/	
			/			

3.3

3.3-1

1			H_2	
2			SO_2 NOx	
3			SO_2 NOx	
4			Ca^{2+} Mg^{2+} COD TN TP pH	
5				

4.1



4.1-1

4.2

1 2

4.2.1

4.2.1.1

4.2.1.2

1

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6

4.2.2

4.2.2.1

4.2.2.2

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4.2.3

4.2.3.1

1

4.2.3.2

1

2 “ ”

3

4

5

6

a.

b.

c.

4.2.3.3

1

2

e

f

g

h

4.2.5

1

4.2.6

5.1

1.

2.

3.

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7.

8. 24

9. “ ”

5.2

1

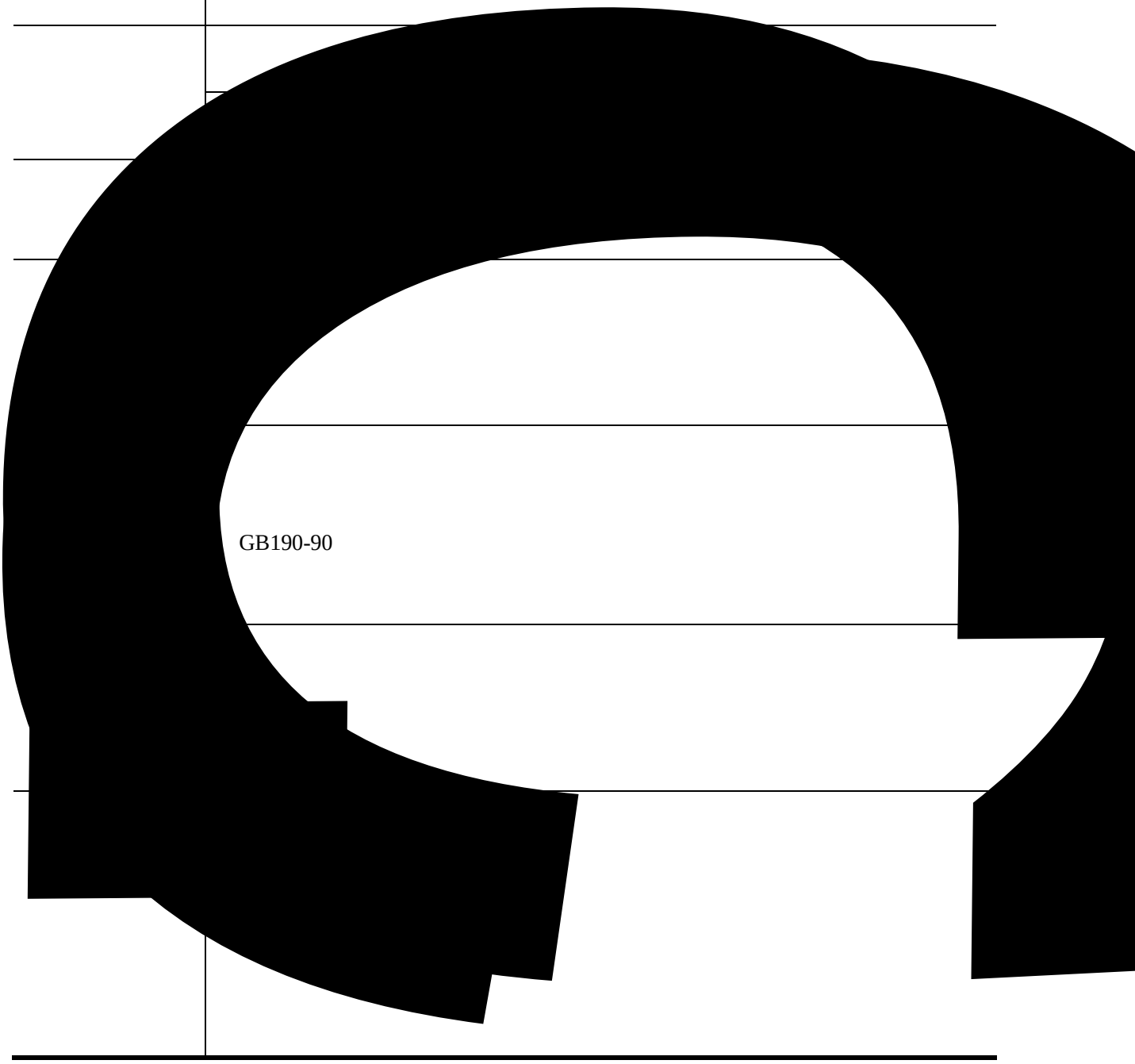
2

3

4

5.2-1

	GB 50058-92



GB190-90

5.3

5.3.1

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5.2-2

		1 2

5.3.2

5.3.3

6.1

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7.1

7.1.1

7.1-1

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7.1.2

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7.1.2.1

7.1.2.2

7.1-2 II

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7.1-3 I

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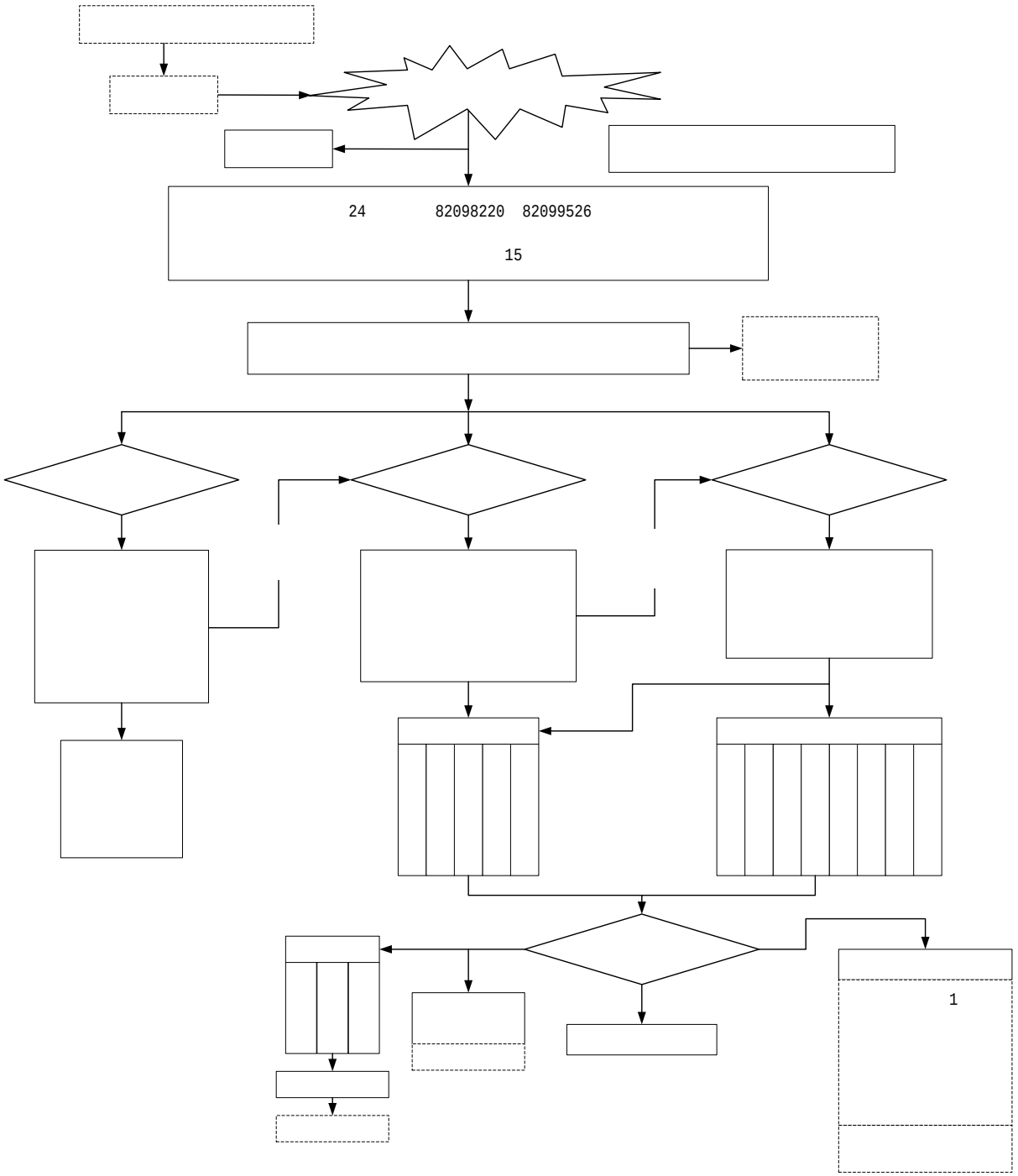
	119 120	

7.1.3



7.1-1

7.2

7.2.1

7.2.1.1

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1211

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7.2.1.2

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7.2.1.3

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7.2.1.4

5

7.2.1.5

7.2.1.6

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BP

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7.2.2

1

SO_2 NOx

SO_2 NOx

2

a)

b)

c)

d)

e) 120

f)

3

c)

d)

e)

f)

g)

h)

i)

j)

k)

4

a)

b)

c)

d)

5

a)

b)

c)

d)

7.2.3

7.3.1

7.3.2

1

2 1

3

7.3.3

020-82111855

020-83357844

020-82113386 82113730

020-82222999 020-82111733

7.3.4

7.3.5

1

2

3

7.3.6 .

pH pH

7.3.7

7.3.7.1

1

2

3

10cm 10m×10m

5

7.3.7.2

2 6 24

7.3-1

	PH			

	COD BOD_5 SS	1 2		200 500 200
	SO_2 NO_2	1 4	10	2~50m 2~50m 4 10 4 100m 200m 1km

7.3.8

8.1

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8.2

1

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8.3

8.4

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8.5

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8.6

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7

8

9

10

9.1

9.1.1

(1)

(2)

(3)

(4)

(5)

9.1.2

(1)

(2)

(3)

(4)

9.1.3

(1)

(2)

(3)

(4)

(5)

(6)

(7)

9.1.4

(1)

(2)

(3) 2 3

(4)

(5)

15

(6)

(7)

(8)

9.1.5

1

9.1.6

9.2

9.2.1

9.2.2

9.2.3

1

9.2.4

11.1

1

2

11.2

2

3

11.3

a

b

11.4

11.5

11.6

1 1~2

2

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110

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11.7

“ ”

120

11.8

11.9

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12.1

1 emergency response plan

2 emergency preparedness

3 emergency response

4 emergency rescue

5 recovery

6

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12.2

12.3

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12.4

2022 3

12.5

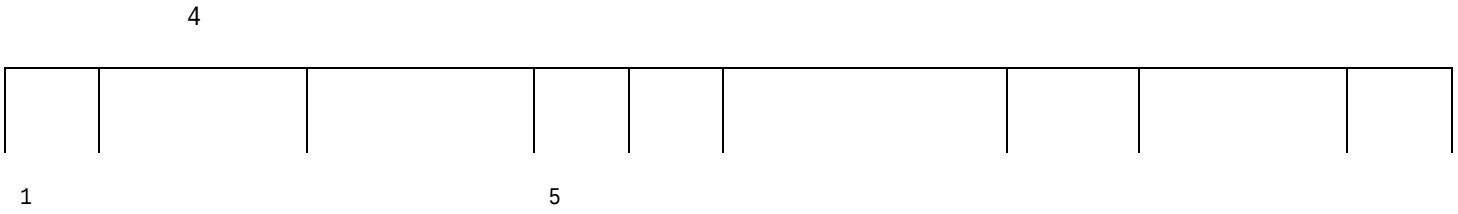
			1363222439 020-82098819
			13622231512 020-82099449
			13660096680 020-82099449
			13650974256 020-82098283
			13828442110 020-82098813
			18819828098 020-82099592
			13602755382 020-82098809
			13710489896 020-82091167
			13922742726 020-82099560
			13502412084 020-82099782
			13802737300 020-82099578
			13710518948 020-82899582
			18198979723 020-82091745
			020-82098220 15014175476
			020-82099526

			15014175477

2

110

			13825068493
			13500025818
			13556155505


4
1
5

33			50		#9		13533430951	
34			105		#6 #7		13533430951	
35			30		#6 #7		13533430951	
36			100		#6 #7		13533430951	
37			30		#6 #7		13533430951	
38			108		#8 #9		13533430951	
39			80		#8 #9		13533430951	
40		GP328	6				13539432396 82099576	
41			2				82098220 82099526	
42		-	1		A			
43					A		82098220 82099526	
44		ZC30	2		#5		13316089609 82098084	
45		TIME2160	3				13539924908 82098056	
46		ST-20 -50 ~1600	7				13539924908 82098056	
47		11KW	2				13268042727	
48		GBK3-2000PD	3				13539924908 82098056	
49		Y100L-2 380	2				13539924908 82098056	
50		LGK-60K 380 v	2				13539924908 82098056	
51		ZX7250GS,220V	5				13539924908 82098056	
44		ZX7400GT,380V NB(II) 380V	9				13539924908 82098056	

5

		Email	