1

“ ” “ ”

2

5 32 2014 12 19

6

7 2017

8

2015 4

9 2016 8 1

10 2015

2015 5

11 591

12 2009 130

13 2010 105

14

2018 8

2

1 2015 1 2019

2 2011 1

3 2009 8

4 2010

5 2006-2020 2006 4 4

6 VOCs

2018-2020 2018 6

7 2011

8 “ ” 2016 51

9

2017 280

10

2017 80

11

2015 99

12

2018 33

13

2018 44

14 2020

8 17

3

1 GB 15603-1995

2 GB30077-2013

3 (GB18218 2018)

4 HJ 169-2018

5

2016 74

6

3 " (ʂ ʌo

3-2 **ı**

3.1.2

3-3

4		
5		
6		
7		

2

1

“ ”

GB/T18920-2002 COD GB/T18920-2002

DB44/26-2001 3-5

3-5 (mg/L)

	COD_{cr}	**BOD_5**	**NH_3-N**	**SS**	
GB/T18920-2002	/	20	20	1000	/
DB44/26-2001	90	/	/	/	10

2

GB4915/-2013

GB30485-2013 3-6 3-7

3-6 GB4915/-2013

		mg/m³		**mg/m³**
		10		0.5

3-7 GB30485-2013

mg/m³

1 10

2 1.0

3

4

(GB12348-2008) 2

2 3-9

3-9 (GB12348-2008) dB(A)

2		60	50

3.3

3-11

				t/a		
1		Φ90		1700000	50000	
2				150000	8000	
3				50000	3000	
4				40000	2000	
5				80000	3000	
6				72000	3000	
7				196200	5000	
8		2 50m^3		3000	120	
9				100	30	
10		1 15m^3 1 50m^3		500	43.68	
11		500g/		0.5kg	1kg	
12		500g/		0.5kg	1.5kg	
13		500g/		0.5kg	2kg	
14		10g/		0.01kg	0.02kg	
15	K-B	10g/		0.01kg	0.02kg	
16		500g/		0.5kg	0.5kg	
17		500g/		0.5kg	1kg	
18		25g/		0.025kg	0.075kg	
19		500g/		4.25kg	8.5kg	
20		500g/		0.5kg	0.5kg	
21		500g/		70kg	57.5kg	
22		500g/		6kg	19.5kg	
23		500g/		10kg	15kg	
24		500g/		5kg	22.5kg	

			t/a	
25		500g/	28.5kg	6kg
26		500g/	77kg	92kg
27		500g/	6.5kg	14kg
28		2.5kg/	87.5kg	212.5kg
29		500g/	5kg	6kg
30		250g/	1.5kg	3kg
31		500g/	0.5kg	2.5kg
32	CMP	500g/	0.5kg	1.5kg

				t/a		
53		25g/		0.25kg	0.5kg	
54		500g/		0.5kg	1kg	
55		500g/		0.5kg	0.5kg	
56		100g/		0.1kg	0.3kg	
57		500g/		3kg	6kg	

MSDS

3-12

[10% ≤35%] 82503

Ammonium hydroxide Ammonia water UN 2672

NH_4OH 35.05 CAS 1336-21-6

/ (=1) 0.91 (=1) /

Ǝאח

3-13

0 =1 4

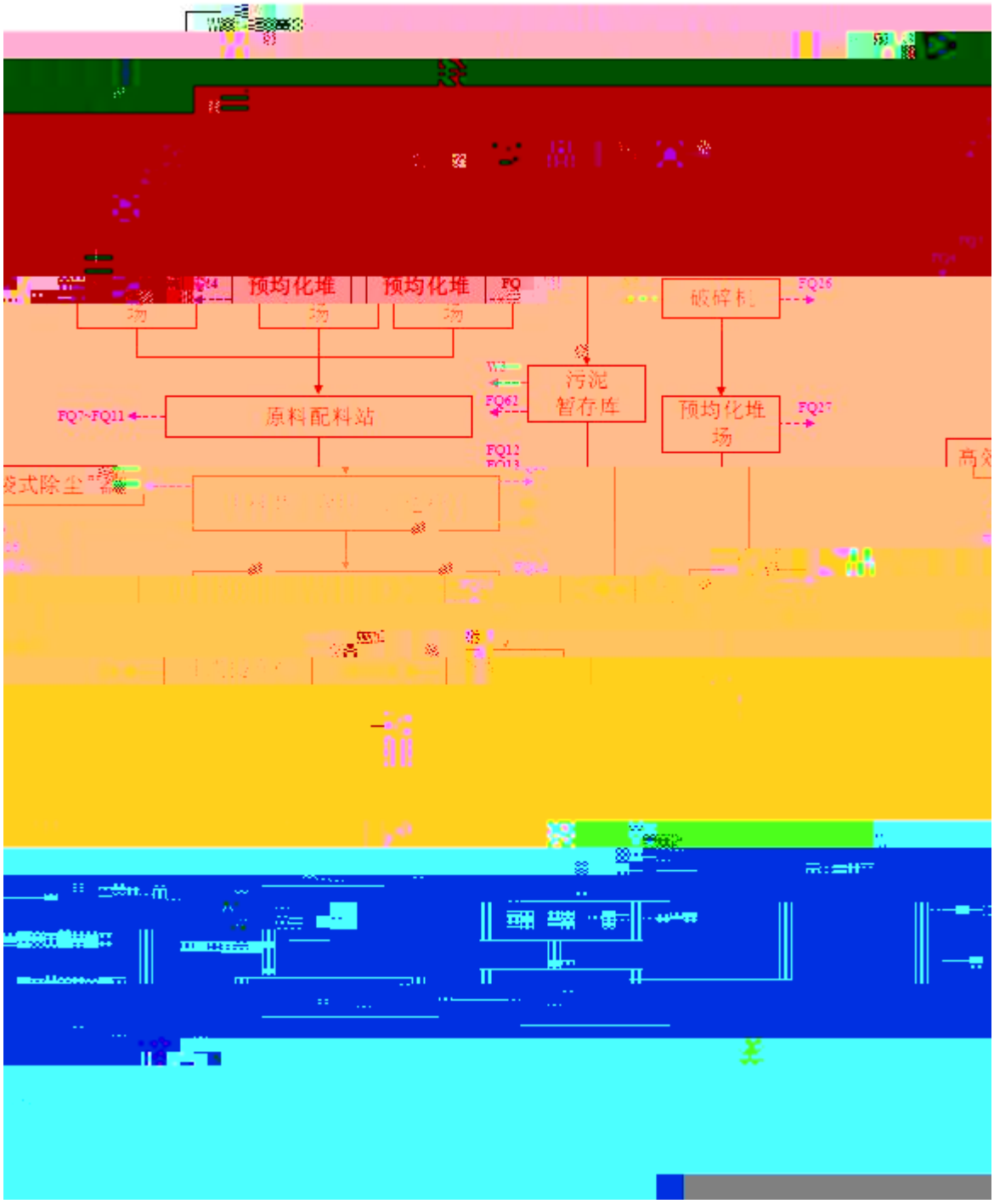
282 338

(GB18218 2018) (HJ 941-2018)

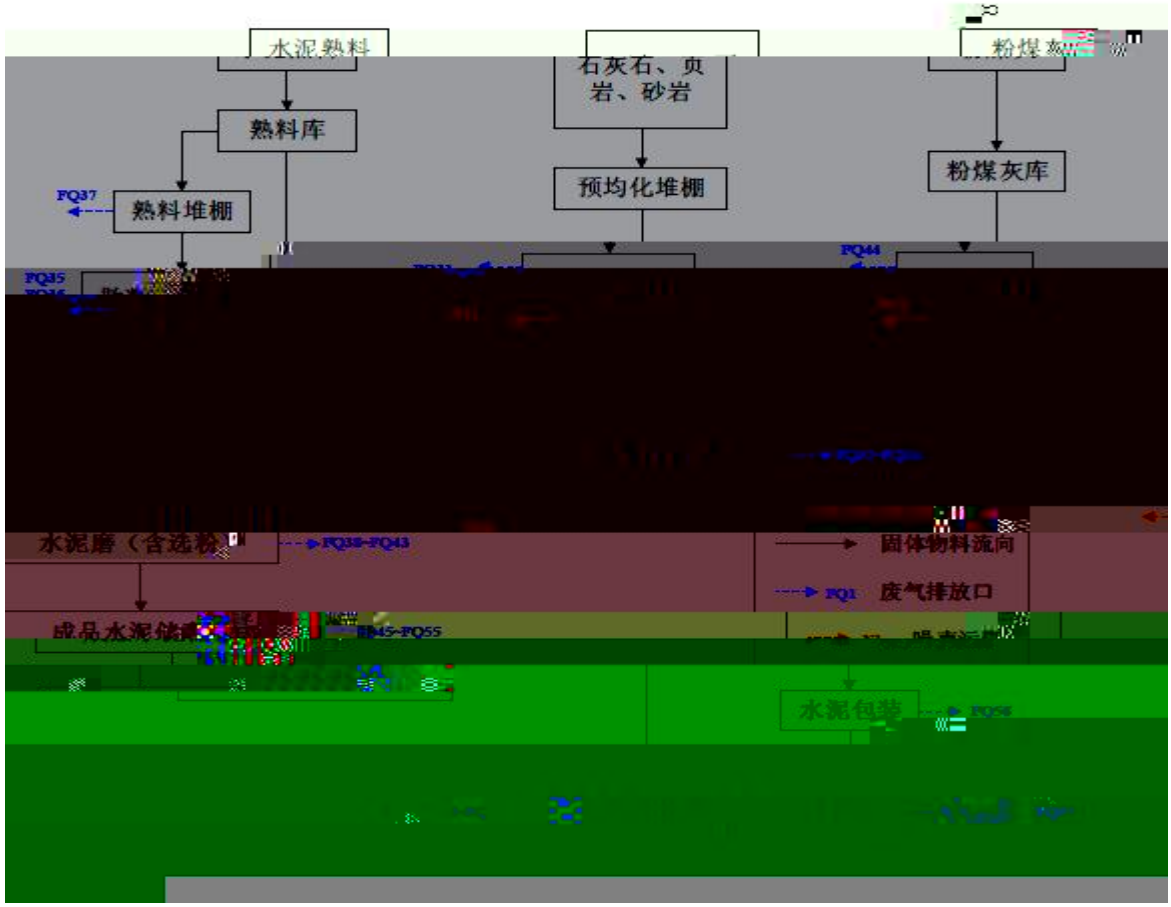
3

3

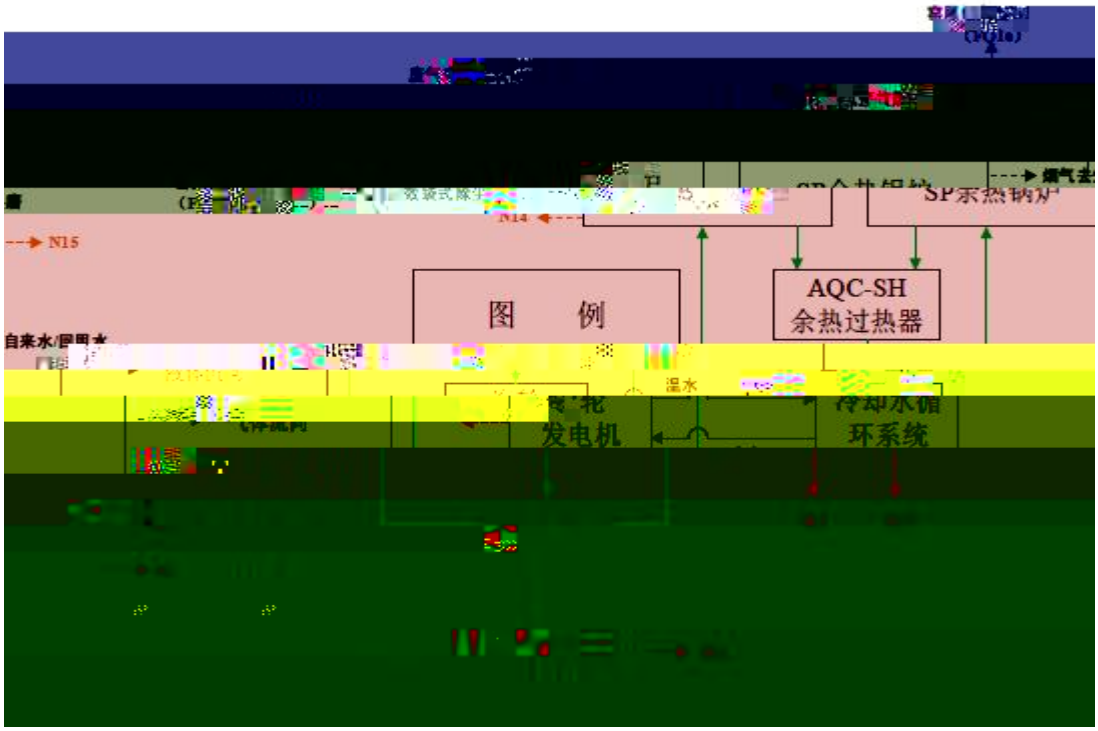
3



3-1


水泥熟料
石灰石、页岩、砂岩
粉煤灰
熟料库
预均化堆棚
粉煤灰库
FQ37
熟料堆棚
FQ35
FQ44
水泥磨（含选粉）
FQ38-FQ43
固体物料流向
FQ1 废气排放口
成品水泥储
FQ45-FQ55
水泥包装
FQ56

3-2

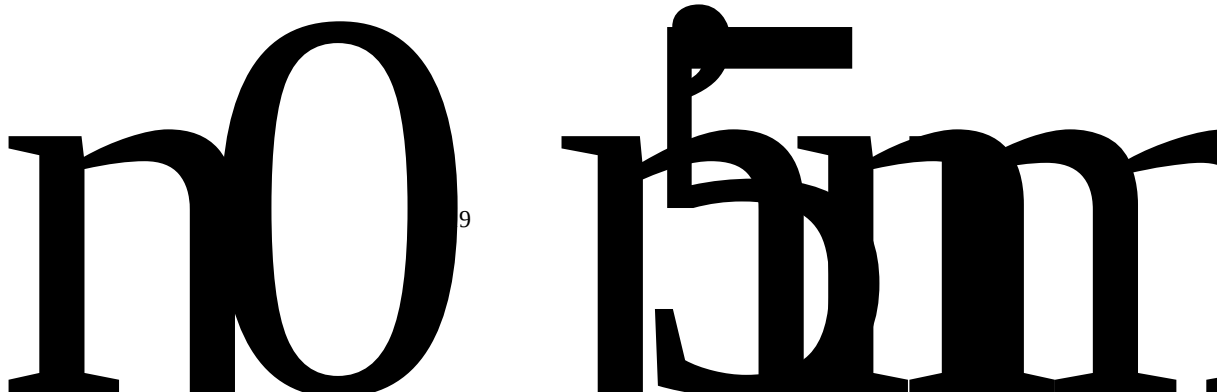

N15
图 例
AQC-SH
余热过热器
自来水/回用水
温水
发电机
冷却水循环系统

3-3

3.4.2

3-15

2NPC1818	1
1000t/h	1
500t/h	1
DB350/14.25	1
QGC300/19	1
CLF180120-D-SD	2
Y5-2x47No24.5F	2
Φ3.8×7.75+3.5m	1
MD1500AY	1
PP128-2x7	1
1700SI BB50	1
3050 DI BB50	1
LCMG- -522-4x8	1
NST-I	1
Φ4.8x74m	1
4.2x36.5m	1
LCMG-II-647-2x10	1
Y4-2×73№22.5F	1
150t/h	1



	120t/h	1		
	200t/h	1		
	120t/h	1		
	/	1		
AQC	/	1		
SP	/	1		

3.4.3

3.4.3.1

“

SNCR ”

1

GB18597-2001

Ã

*ÃP} }T „9$e|P-*9S`C ¾@@

5

È

1			
2			
3			
4			

A 4

3-17

√ 0

/ /

√ 0

/ /

√ 0

/ /

√ 0

/ /

		2
2		1 2 3 4
3		1 2 0750-7821337 0750-7777878

3.7

3.7.1

1

3-19

1		--	5			18138039389	
2		LED ;3W	13			18138039389	

3.7.2

1

“ ”

3-21

			/	
				13872060887
				18138039288
				15007280339
				18138039318
				13657145451
				13630440762
				18675092497
				18138039361
				17796117962
				13326822688
				15072936981
				13822480179
				18138039266
				18138039286
				18138039344
				18138039355
				18138039387
				13380971607
				18138039328
				13558882912
				18138039298
				13422795204
				18138039388
				18138039373

			/	
				13874662808
				15271222611

2

4-3

	/	/	/	/
	26	1	2	6
	26	1	5	1
	43	/	9	/
	28	28	/	7
	4	1	1	4
	5	/	/ g	/
	4	/	1	/

2

4.1.9

1

HJ/T1 -20 F

$$Q_0 = C_d A \rho_1 \sqrt{\frac{2(p - p_0)}{\rho_1 (1 - \beta^4)} + 2gh}$$

Q_0 - kg/s

C_d - 0.6~0.64

A- m^2 0.0000785z∅8

ρ - kg/m^3 855kg/m³

p - Pa 101325pa

p_0 - Pa 101325pa

g - 9.8m/s^2

h- 0.5z∅

0.14kg/s 30 252kg

43.68t

, ¡ r

%0

Í , ¡ r `

CO

Ď

			m^3	
6		V	474.75	——

4-4

m^3

1	V_1	50	$120m^2$ $50m^3$
2	V_2	216	GB50974-2014 15L2´

[1] 0.14kg/s 43.68t

[2] 1.22kg/s 12

[3] 0.2kg~0.4t

2

2

3

4

——

—— Pa

—— g/mol

—— 8.314 J/mol•

0 —— K 298 K

—— m/s 1.5 m/s

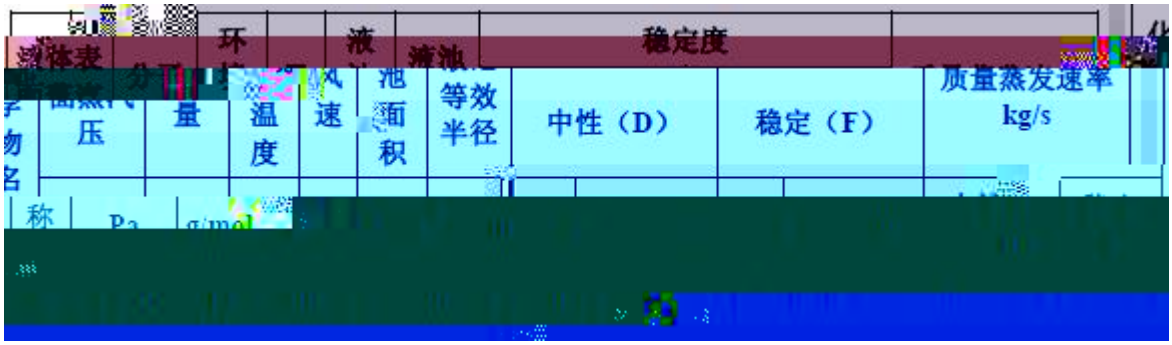
—— m

120m^2

6.2m

4-6

A B 0.20 3.846×10$^-$



20% D F

0.38kg/s 0.46kg/s

1240.2kg 820 kg/m³ 120m2

0.012m

HJ/T169-2004

4.4.4

ġ ŗ

5

5.1

5.1.1

1

2

3

5.1.2

1

2

3

5.1.3

1 7 2-3

“

” “

4

		( );4kg		
12		SN-65	2	18138039389
13		0.05mm*50m	500	18138039389
14		--	1	13422795204
15		--	1	13422795204
16	/		1038 m^3	
17			2	
18			2	
19			6	
20			3	
21			1	
22			200	
23			2	
24			2	
25			1	
26			1	
27			2	

/

13657145451

13630440762

18675092497

18138039361

17796117962

13326822688

1507293698

13822480179

8138039266

38039286

138039344

18138039355

18138039387

13380971607

18138039328

13558882912

18138039298

13422795204

18138039388

18138039373
0

13874662808

15271222611

6

5-6

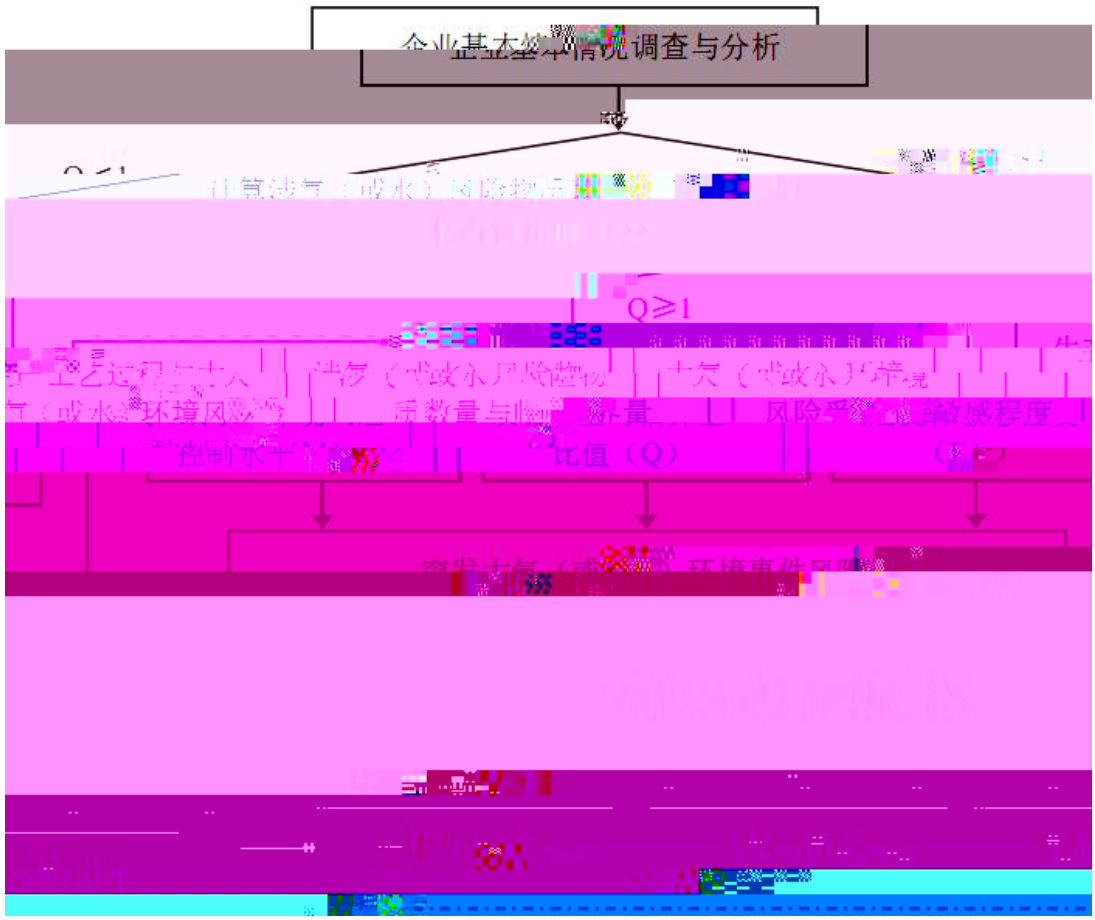
6-1

3

7

Q M

E



7-1

7.1

7.1.1 Q

A

NH_3-N ≥2000mg/L COD_{Cr} ≥10000mg/L

“ ”

Ä

CXW#âm vXLy€ $ C6€ T @ñP T R ” Ä

7-5

1 E1	● 5 5 500 1000 5
2 E2	● 5 5 500 500 1000
3 E3	● 5 1 500 500

5km 5

7-6 “ ”

7.1.5

1 Q≤1 “ - Q0 ”

2 Q≥1 “ - Q

-M -E ”

Q 1 -

Q2-M1-E2

7.2

7.2.1 Q

A

“

”

Q

1

Q

2 1

W1 W2 …… Wn—— t W1 W2 ……

Wn—— t

		8	
	1 2	0	0
	2	8	
		0	0
	1 2 3	6	
	1 2 3 4	12	
	1 2	0	0
		10	
3		8	0
		6	
		4	
		0	
		/	16
	GB50483 GB50160 GB50747 GB50351 SH3015		

3

7-9

4

7-9

M 25	M1
25≤M 45	M2
45≤M 65	M3

M≥65	M4

7-2 7-8 25<M=38<45

M1

7.2.3 E

1 2 3

E1 E2 E3 7-10

1 2 3

3 E2

M2 Q2

7-11

8

7.1 7.2

“ - Q2-M1-E2 ”

“ - Q2-M2-E2 ”

8.2

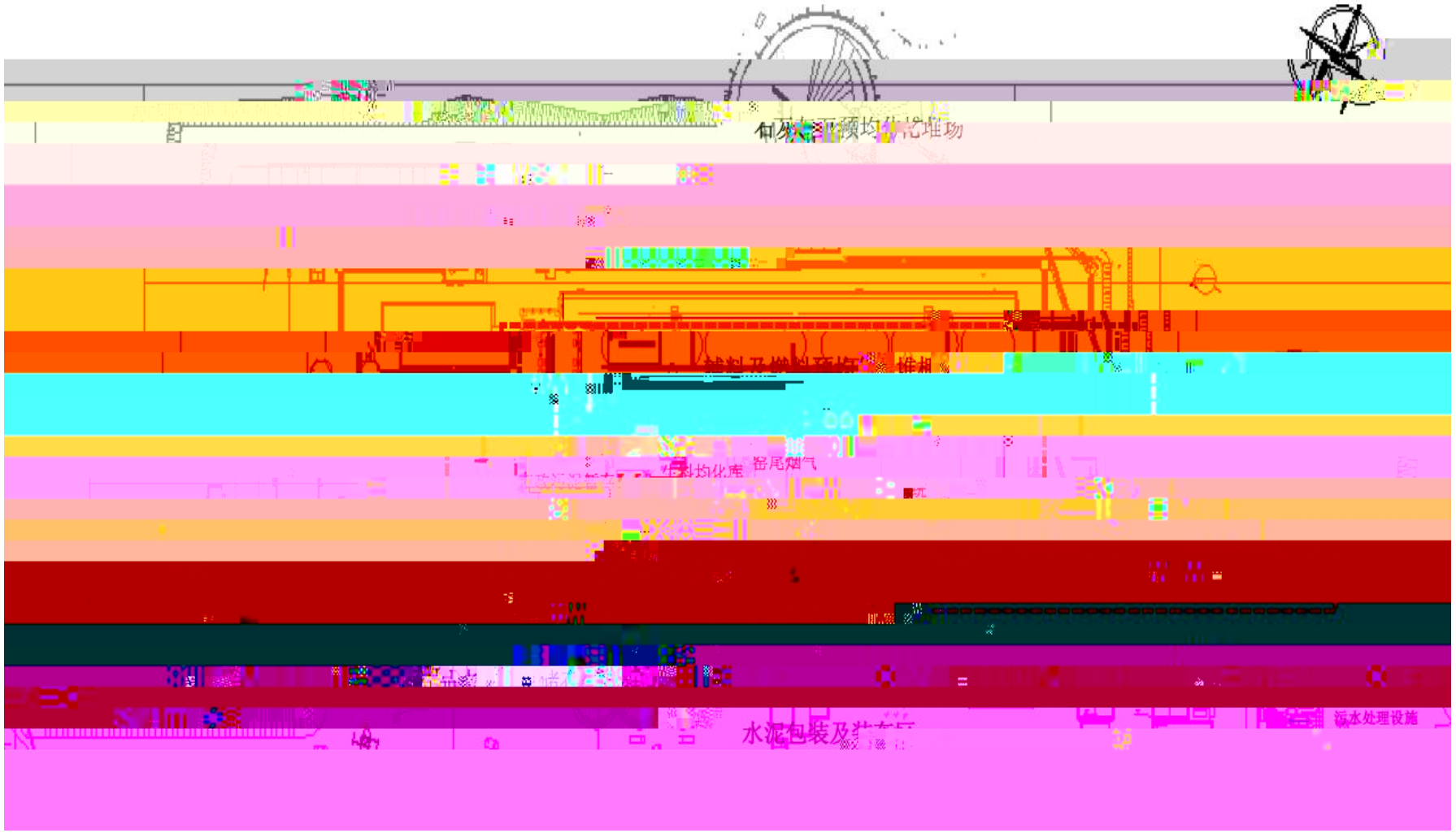
8.3

“

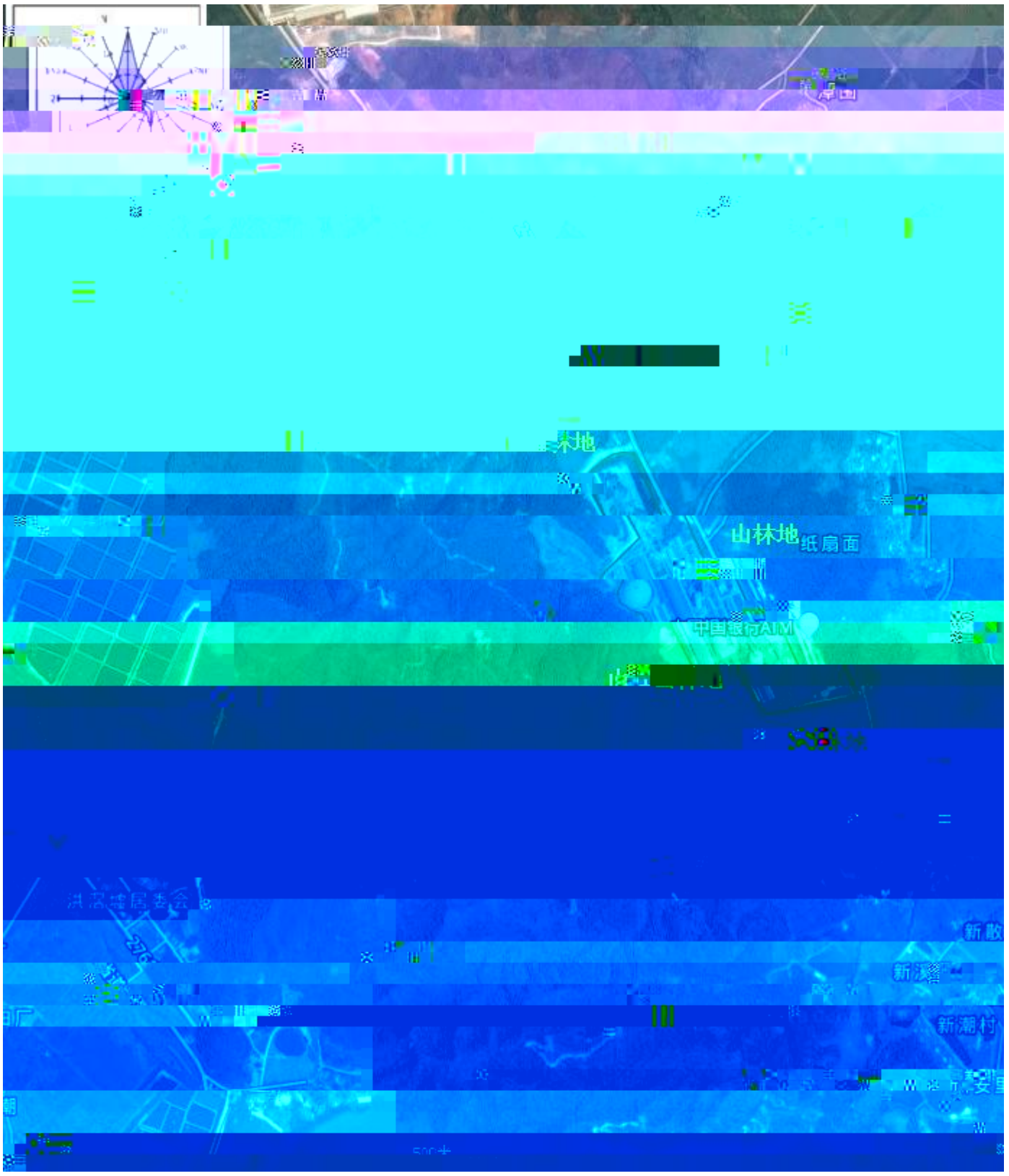
[+

]” [- Q1-M3-E1 + - Q2-M2-E2]

“ -


窑尾烟气
水泥包装及装车
污水处理设施

8.4



8.5

8.6