梅州市塔牌集团蕉岭鑫达旋窑水泥有限公司

二〇一六年六月

2.1 2
2.2 2

5.4 40

7.1 Q 42
7.2 M 42
7.3 E 46
7.4 48

8.1 50
8.2 51
8.3 53
8.4 54
8.5 56

12 45

13 [2010] 113

14 “ ” [2013]20

15 2015 3 19 2015

6 1

16

1 GB 18218-2009

2 GB50016-2014

3

2013

200

300t/h

28438

2331

6000 **250**

150 **5000t/d**

5000t/d

41450

	116°11 28"		24°45 17"
	0753-7522316		0753-7522315

500m

1

3m 4m

10 30m

0.938m/s 0.49m^3/s

0.584m/s 0.19m^3/s

2

150km 3681km^2 61.64km

728.2km^2 37.754km 6‰

200 300m 1990km^2

119km

59.7km^2 129km^2 78km^2

128.1km^2 39.92km^2 13km 20km 20.7km 13k 7.9km

59.9m^3/s 32.9m^3/s

3.006m^3/s 1963 6 7 2650m^3/s

1964 6 15 3-2

3-2

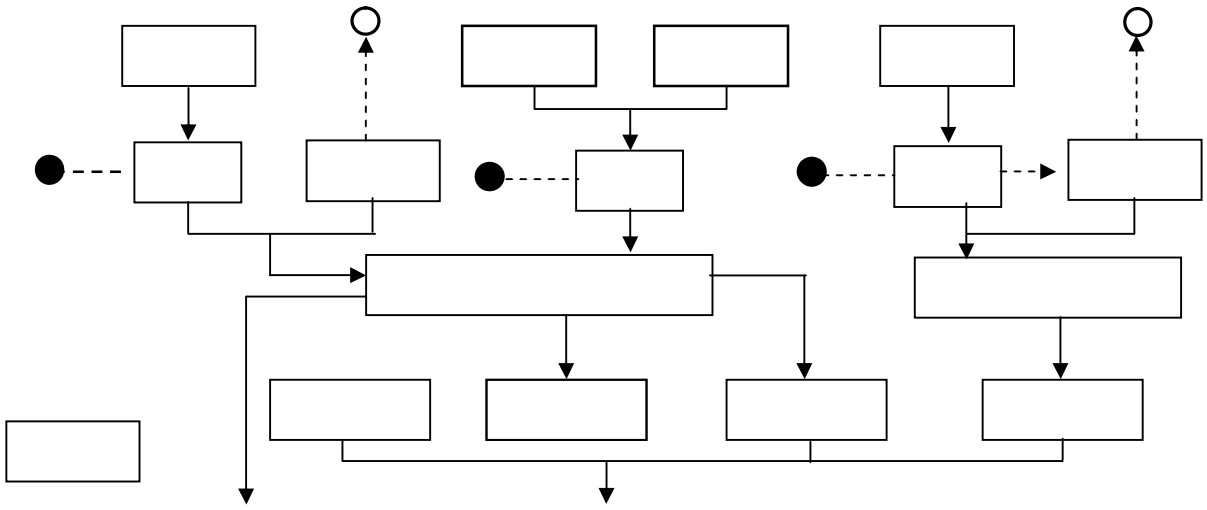
		km^2	m^3/s	m	km	‰
		745.5	58.16	71.3	61.64	1.2

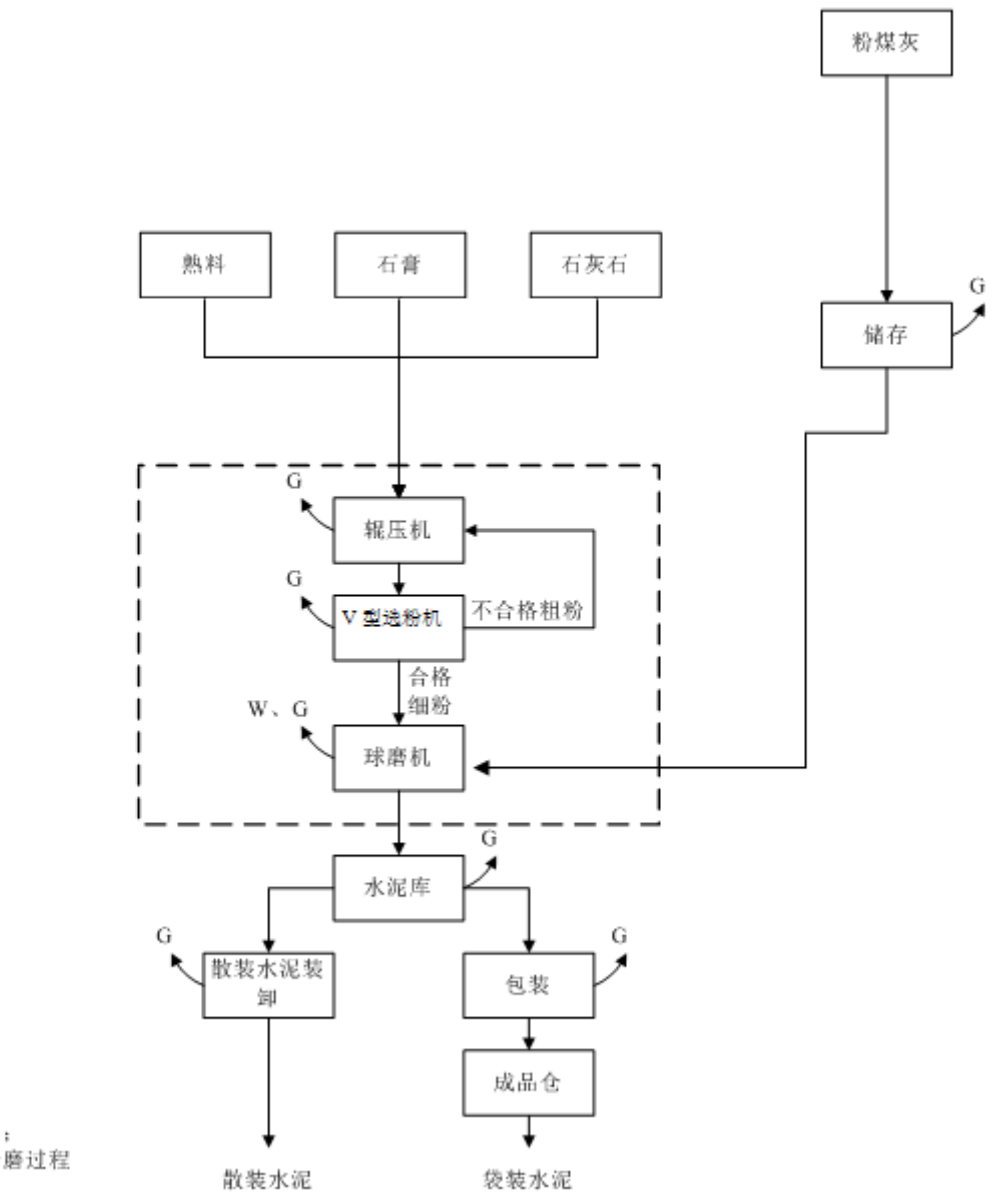
(GB3838-2002) II

500m

1

200 /





图例

物料流向

气体流向

噪声

粉尘排放源

注：W表示废水；
G 表示有组织粉尘；
虚线框表示水泥粉磨过程

2

1

2

≤ 300mm ≤ 30mm

200t/h

3

800t/h 400t/h

4

5

6

400t/d

7

TSD

AQC 320-370

90 SP 335-345

210

8

Φ60m

Φ18m×45m 13277

9

≤1000mm ≤25mm 400t/h

Φ8m×28m

10

30 Φ8m×28m

1 HMC-64

26880m^3/h ≥99.9

1 PPW64-7 10000 m^3/h

99.9

11

V

Φ4.2×13m

300t/h

2

100000 m^3/h ≥99.9

12

2 Φ30×45m 2 Φ18×48m 8 Φ10×28m

109635

4

4×216=464 / 8 11%

18 7200 13000m^3/h

≥99.9

13

6 180t/h

100t/h

6 PPW64-7

≥99.9%

1

294 [3]

“

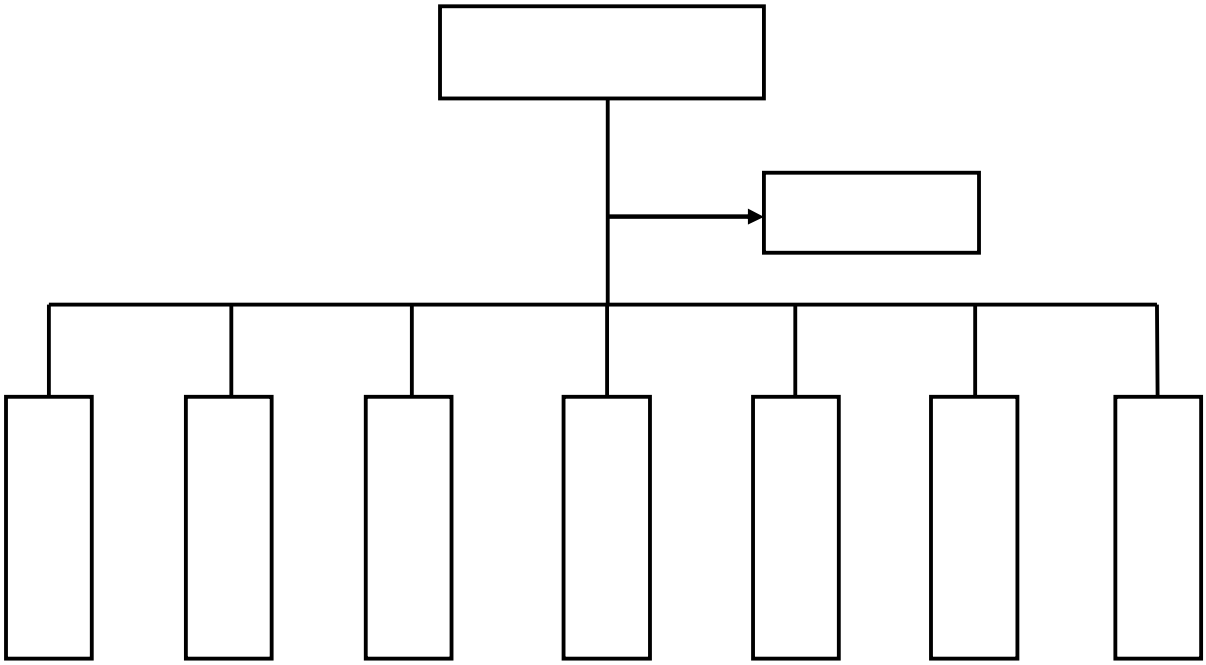
+ + ”

“ + +

”

6

3-3



		2		
		140		
		8		
		3		
		8		
		28		
		2		
		8		
		28		
		20		

1

SO_2 NO_2 NH_3

3306.24t/d

11.16t/d 3124.8t/a “

+ + ”

294 m^3

SO_2 NO_2 NH_3

760154m^3/h 80t/a

SO_2 NO_2 NH_3

20 7kg 0.14t

3t

$294m^3$

20 7kg 0.14t

3t 83

3.6 3.7

1

1

28

4-1

4-1

+		

4-2

		Nm^3/h	kg/h			
			SO_2		NO_X	
		344185	0.85	1.14	1.68	H113m/Ø4.2m

4-3

m						
	SO_2				NO_x	
	mg/m^3	%	mg/m^3	%	mg/m^3	%
100	6.19E-15	0	1.22E-14	0	8.31E-15	0
200	1.06E-05	0	2.10E-05	0.01	1.42E-05	0
300	0.000428	0.09	0.000846	0.35	0.000574	0.19
400	0.001537	0.31	0.003037	1.27	0.002061	0.69
500	0.002271	0.45	0.004488	1.87	0.003045	1.02
522	0.002299	0.46	0.004544	1.89	0.003083	1.03
600	0.002093	0.42	0.004137	1.72	0.002807	0.94
700	0.001707	0.34	0.003374	1.41	0.002289	0.76
800	0.00164	0.33	0.003241	1.35	0.002199	0.73
900	0.001728	0.35	0.003415	1.42	0.002317	0.77
1000	0.001715	0.34	0.003389	1.41	0.0023	0.77
1100	0.001644	0.33	0.003249	1.35	0.002205	0.74
1200	0.001545	0.31	0.003054	1.27	0.002073	0.69
1300	0.001438	0.29	0.002843	1.18	0.001929	0.64
1400	0.001382	0.28	0.002732	1.14	0.001854	0.62
1500	0.001419	0.28	0.002805	1.17	0.001903	0.63
1600	0.001432	0.29	0.002829	1.18	0.00192	0.64
1700	0.001425	0.29	0.002817	1.17	0.001912	0.64
1800	0.001405	0.28	0.002778	1.16	0.001885	0.63
1900	0.001376	0.28	0.002719	1.13	0.001845	0.62

m						
	SO_2				NO_x	
	mg/m^3	%	mg/m^3	%	mg/m^3	%
2000	0.001339	0.27	0.002647	1.1	0.001796	0.6

2

20%

100 m³ 50

16m×13m×0.5m 104m^3 294m^3

10min

HJ/T169-2004

QL

$$Q_L = C_d A \rho \sqrt{\frac{2(P - P_0)}{\rho} + 2gh}$$

Q_L—— **kg/s**

C_d—— **0.6~0.64** **0.62**

A—— **m^2**

ρ—— **920kg/m^3**

P—— **Pa**

P_o—— **Pa** **101325Pa**

g—— **9.8m/s^2**

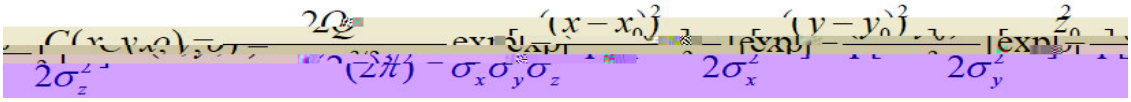
h—— **5.1m**

100% 0.032m

18.3kg/s 10min

10.98t

1

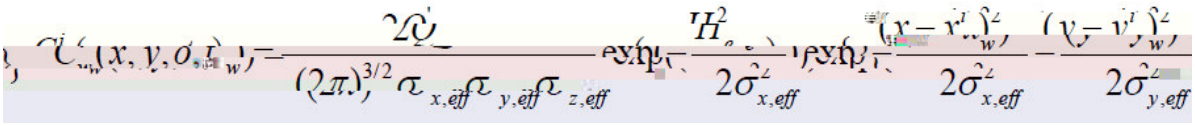


C x y o —— x, y mg.m^{-3}

x_o, y_o, z_o ____

Q–

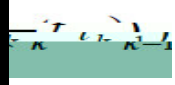
σ_X σy σz—— X Y Z m $\sigma_X = \sigma y$

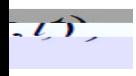


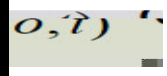
$C_w^i(x, y, 0)$-- i t_w w (x,y,0)

Q′-- mg $Q' = Q\Delta t$; mg.s-1 t s

σx,eff σy,eff σz,eff – w







4-6

C n	1.1m/s C 25min	1.1m/s C 30min
4	0.0001	0.0001
6	0.0002	0.0001
1	0.0003	0.0001
6	0.0004	0.0002

m	1.1m/s C 5min	1.1m/s C 10min	1.1m/s C 15min	1.1m/s C 20min	1.1m/s C 25min	1.1m/s C 30min
1900	0	0	0	0.0001	0.0003	0.0004
2000	0	0	0	0.0001	0.0002	0.0003
2100	0	0	0	0	0.0002	0.0003
2200	0	0	0	0	0.0001	0.0002
2300	0	0	0	0	0.0001	0.0002
2400	0	0	0	0	0.0001	0.0001
2500	0	0	0	0	0	0.0001
2600	0	0	0	0	0	0.0001
2700	0	0	0	0	0	0.0001
2800	0	0	0	0	0	0.0001
2900	0	0	0	0	0	0
3000	0	0	0	0	0	0
3500	0	0	0	0	0	0
4000	0	0	0	0	0	0
4500	0	0	0	0	0	0
5000	0	0	0	0	0	0
Cmax mg/m^3	27.06512	27.06656	0.0138	0.0031	0.0012	0.0006
L_1 m	1	1	349	672.93	985	1273

4-6

CO

CO_2

100

CO

SO_2 CO

110-2000mg/m^3

300-400 mg/m^3

4-8

		Nm^3/h	kg/h	
		22124	1.02	H30m/Ø0.6m

· HJ2.2-2008 A

4-9

4-9

m		
	mg/m^3	%
100	0.0147	0.05
200	0.03128	0.10
300	0.03244	0.11
342	0.03346	0.11
400	0.03223	0.09
500	0.02757	0.09
600	0.02654	0.09
700	0.02627	0.09
800	0.02486	0.08
900	0.02302	0.08
1000	0.02110	0.07
1100	0.01928	0.06
1200	0.01766	0.06

m

10min

HJ/T169-2004

QL

$$Q_L = C_d A \rho \sqrt{\frac{2(P - P_0)}{\rho} + 2gh}$$

QL—— **kg/s**

Cd—— **0.6~0.64** **0.62,**

A—— **m^2**

ρ—— **810kg/m^3**

P—— **Pa**

Po—— **Pa** **101325Pa**

g—— **9.8m/s^2**

h—— **5.1m**

100% 0.02m

1.39kg/s 10min

0.834t

5

4-10

4-10

1			
2			
3			

4-10

6

3306.24t/d

11.16t/d **3124.8t/a** **“**

+ **+** **”**

1

2

1

2

$294m^3$

1

2

3

Q

$$\frac{q_1}{Q_1} + \frac{q_2}{Q_2} \wedge \wedge + \frac{q_n}{Q_n} \geq 1$$

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

$Q_1, Q_2 \wedge \wedge Q_n$-- t

Q<1 Q

1≤Q Q 1 1≤Q<10 2 10≤Q<100

3 Q≥100 Q1 Q2 Q3

		q	Q		
1	20%	16.6t	7.5t	2.2133	B “ ” “ ” ____ 1-C
2		0.14t	5t	0.028	
3		3t	2500t	0.0012	
4				2.2425	$q_1/Q_1+ q_2/Q_2+\ldots\ldots+ q_n /QN>1$

1≤Q<10

Q1

M

4

1

0

5

“ + + ”

0

6

0

7

0

8

0

0

		20	10
		2	0
		2	0
		2	0
		2	0
		8	0
		8	0
		8	0
		8	0
		8	0
		8	0
		4	0
		10	0
		10	0

10+0+0+0+0+0=10 M<25

M	
M<25	M1
25≤M<45	M2
45≤M<60	M3
M≥60	M4

7-2 M=10

M<25 7-3

1 E1	● 10 ● 24 ● ● 5 5 500 1000 5
2 E2	● 10 ● 5 1 5 500 500 1000
3 E3	● 10 1 2 ● 5 1 500 500

10

5

1 5

7-4

3

Q M

Q	M			
	M1	M2	M3	M4
1≤Q<10				
10≤Q<100				
100≤Q				

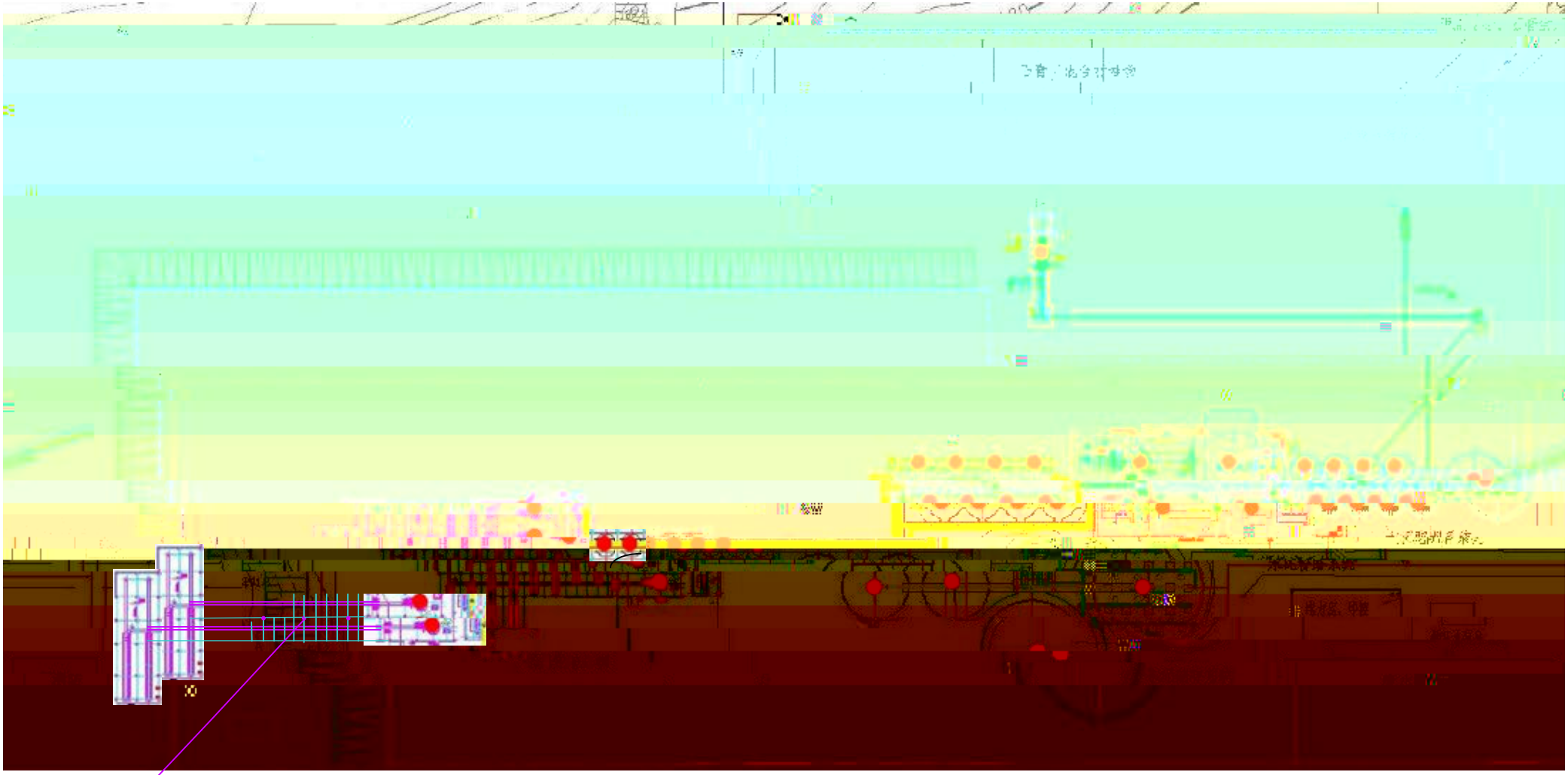
8.1

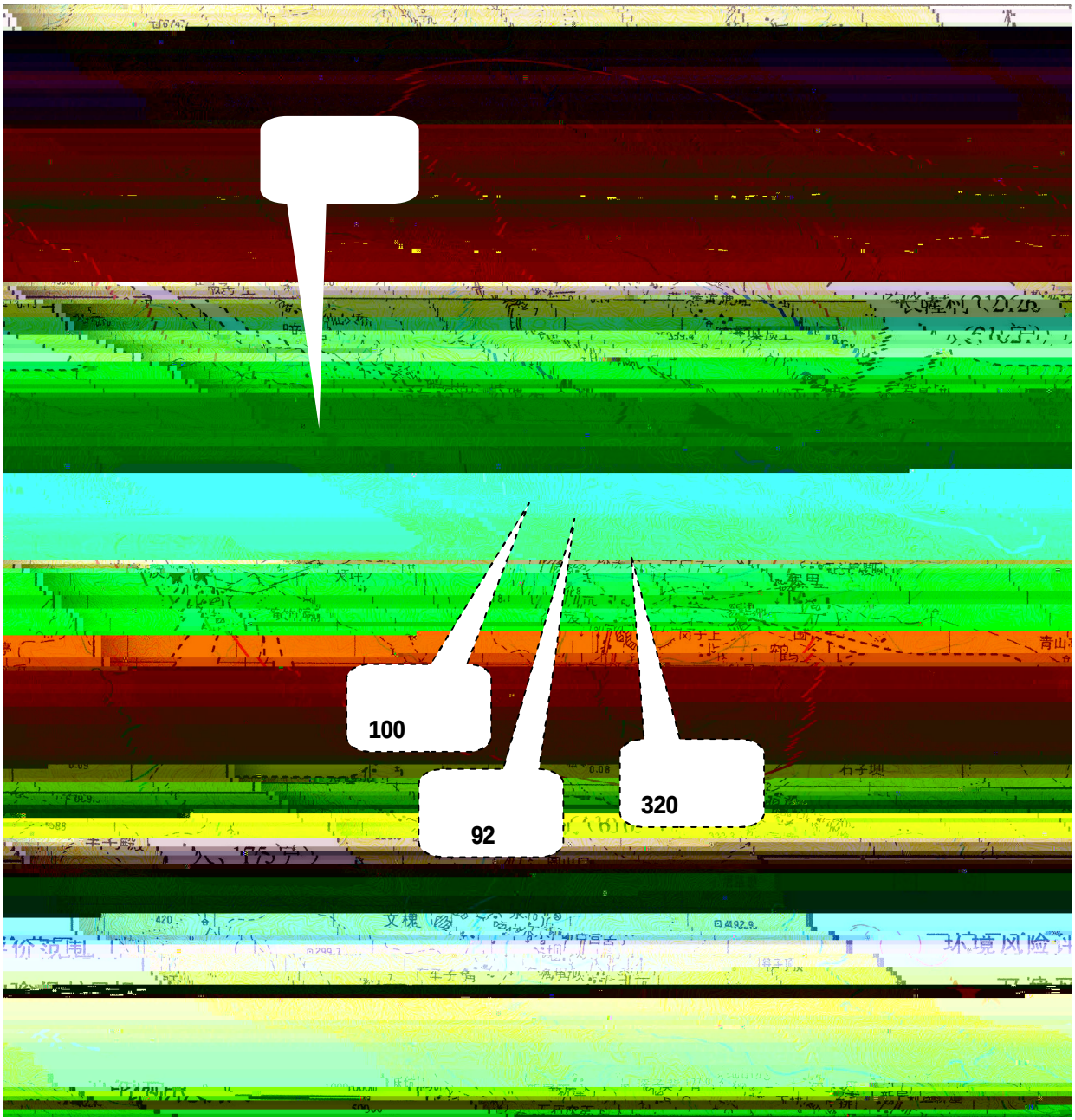
8.2

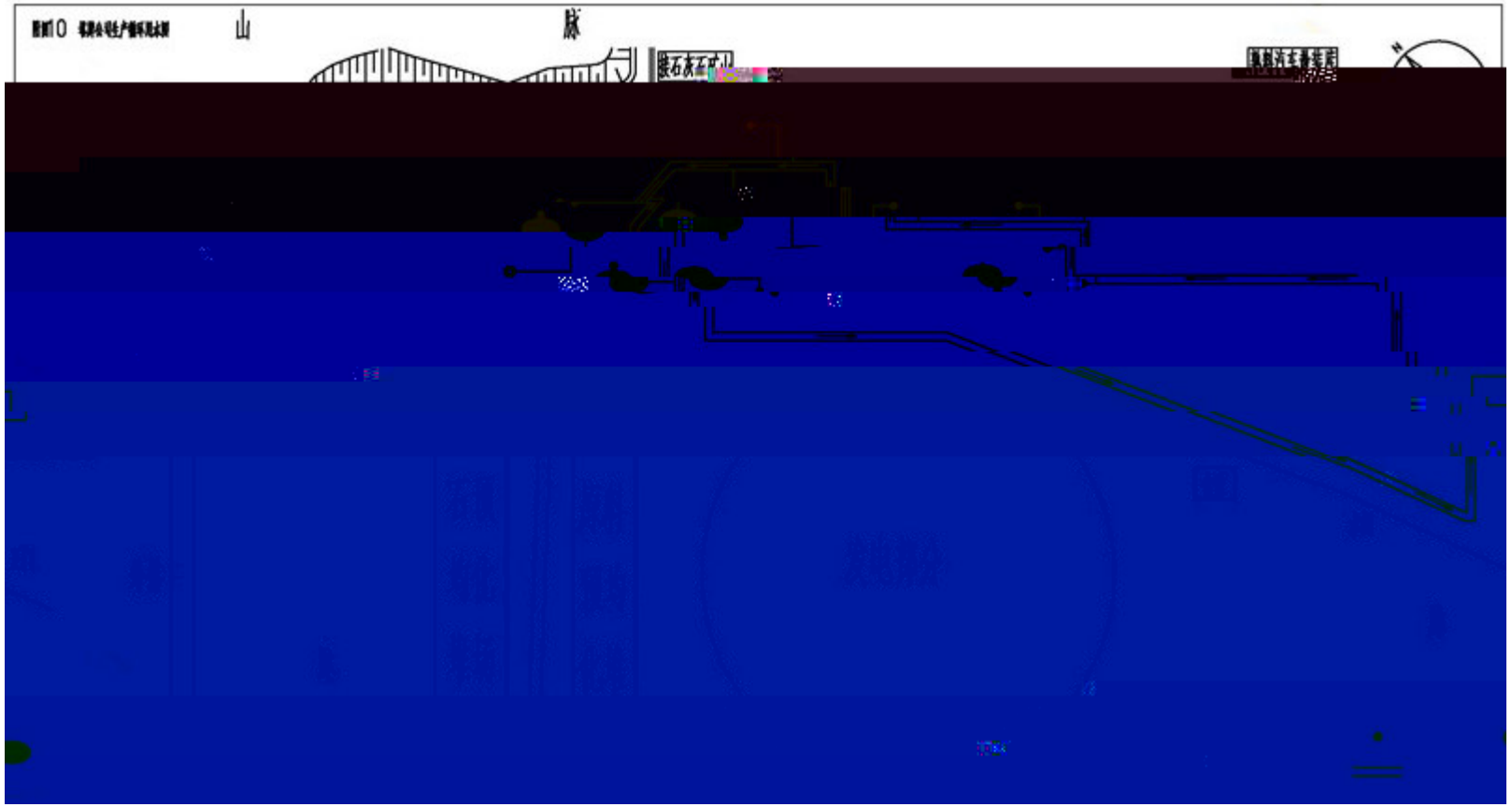
8.3

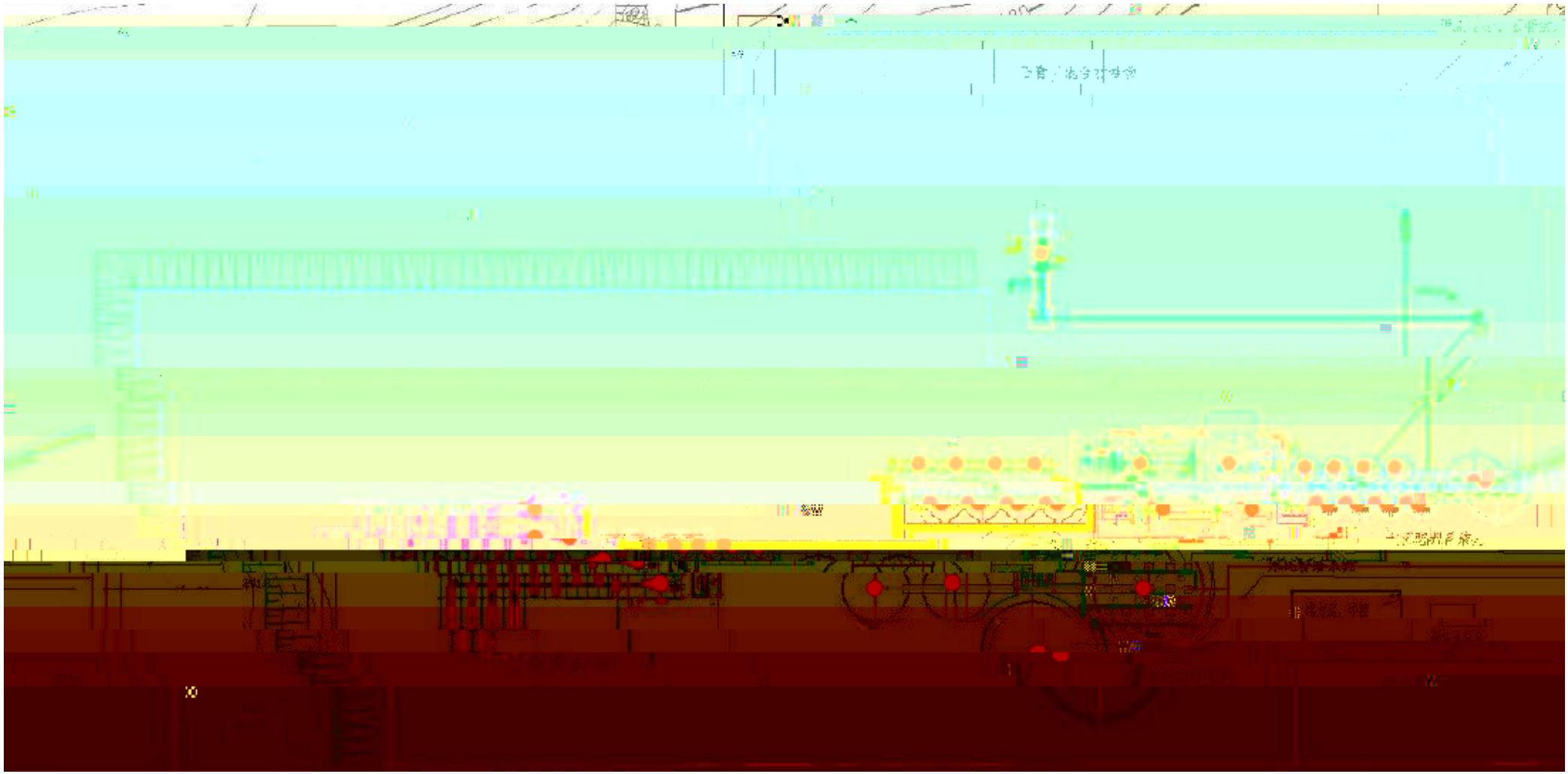
8.4

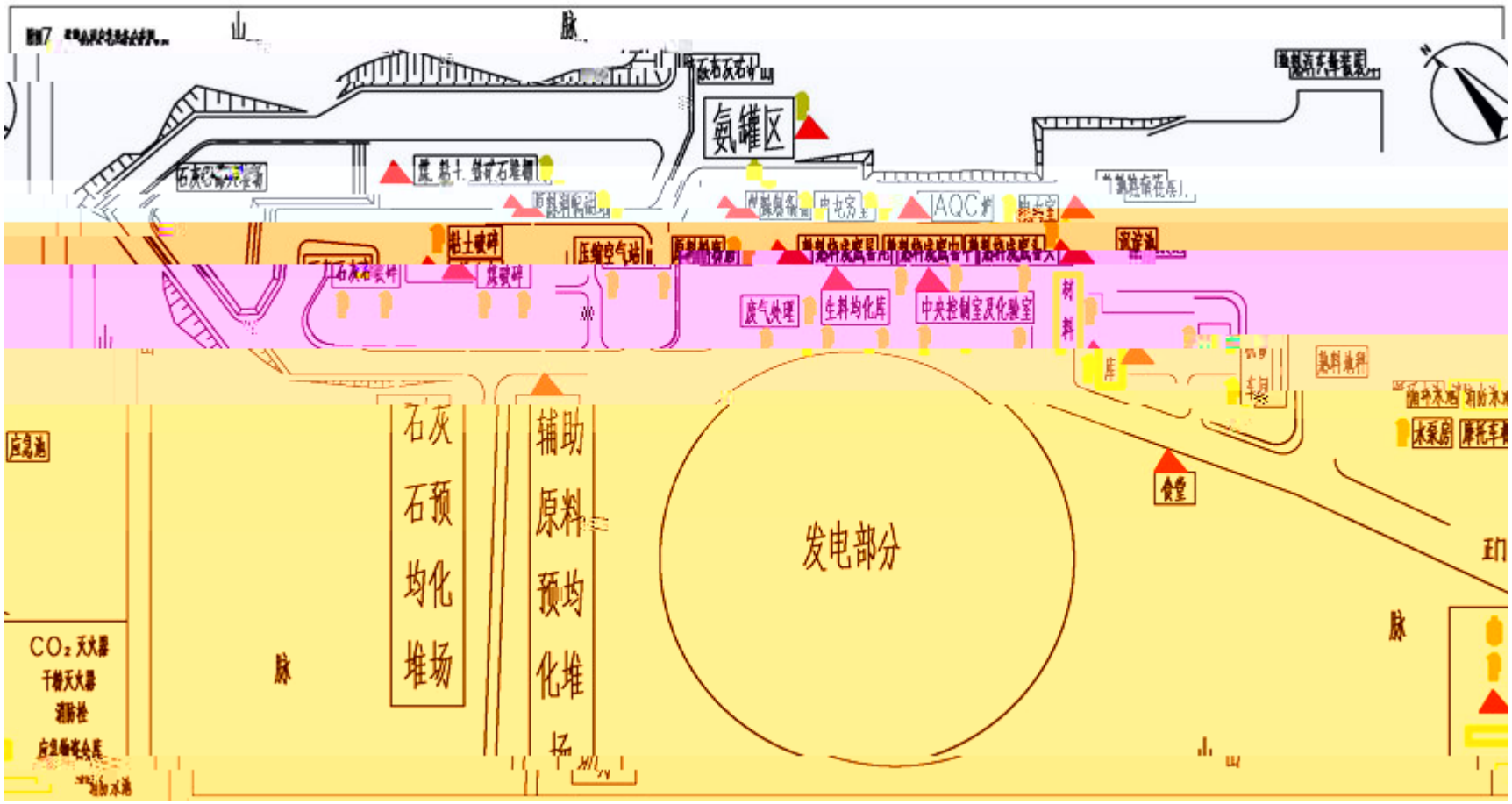
8.5




100
92
320






氨罐区
石灰石预均化堆场
辅助原料预均化堆场
发电部分
生料均化库
中央控制室及化验室
食堂
应急池
水泵房