2019-320509-28-03-649295

( )

: 2019 9

1 …… 30

2 ……

3 ……

4 ……

5 ……

6 ……

7 ……

8 ……

	2019-320509-28-03-649295				
	15806256326		——		215221
			[2019]82		
			D4430		
m^2	53210		**m^2**		
( )	8412		30		0.36%
( )			2020.3		

1-1

		CH_4	0	8760 m^3	8760 m^3		
		/	17.2034	0	-17.2034	/	/

1-2

	CH4	0.55 0.415	537 15% 5.3%	

1

2008

“ ” “ 21000 / ” 2010 4

2013 2

[2010]242 [2013]101 2017 [2017]51

[2017]99

2017

8412 “ ”

15 2019 9 6

[2019]82 1

2014 4 24 2015 1 1

2016 2016 9 1

2017 6 21 2017 10 1

2018

2018 92“

”

2

2019-320509-28-03-649295

8412 30

53210m^2

365 3 24

15

1-4 70

3800

1-4

	6 1450 4 2	6 1450 4 2	40 PET +12 PTT
1	3 1000 2 1	3 1000 2 1	10 +3 PTT
2	6 1450 4 2	3 1450 2 1	20 CPD + 25
3	3 1450 2 1	3 1450 2 1	25

1-5

.

		“SCR + + ”	/

3

120°36′9.15″ 30°58′2.92″

4 15 6

1 2 3 3

20 CPD 1

12 PPT 2

3 25

470 2

3

“ 12 PTT ”
“ 20 CDP ”
8 ” “ 40 ”
“ ” “ 50
” “ 30
” “ 25 ”
“ ”
2008 7 2010 9 2012 1 2013 6
2011 8 2013
2 2016 7 2017 12 08
2019 8 28
2012 11
2015 5
2012 5
2016 1 2016 12
2018 8
2019 6 25

“ ” “ 21000
/ ” 2010 4 2013 2
[2010]242 [2013]101
2017 [2017]51 [2017]99
2017

15

1-7

	12 PTT	FDY 60000 DTY60000		[2008]873 [2008]336 [2008]151	2012.11	/
	20 CDP	FDY140000 POY60000		[2015]35 [2010]225 [2015]68	2015 72 2015.5	/
	8	8		[2011] 175	2012.5	/
	40	20 / FDY 10 / POY 10 / DTY		[2011]365 [2012]23	2016 21 2016.1	/
		4 500 120 PTA80 40		[2013]100	[2016]123 2016.12.13	/
	50	50		[2013]301 [2013]119	[2019]1	
	30	30		[2017]348	/	
	25	25		[2017]515	2019.6.25	/
		5		[2017]515	/	
		6		[2010]348	[2017]51	
	21000 /	21000 /		[2013]101	[2017]99	

1-8

			6 1450 / 4 2	6 1450 / 4 2	/
21000 /		1	3 1000 2 1	3 1000 2 1	/
		2	6 1450 4 2	3 1450 4 2	3
		3	3 1450 2 1	3 1450 4 2	/
		4	9 1450 6 3		

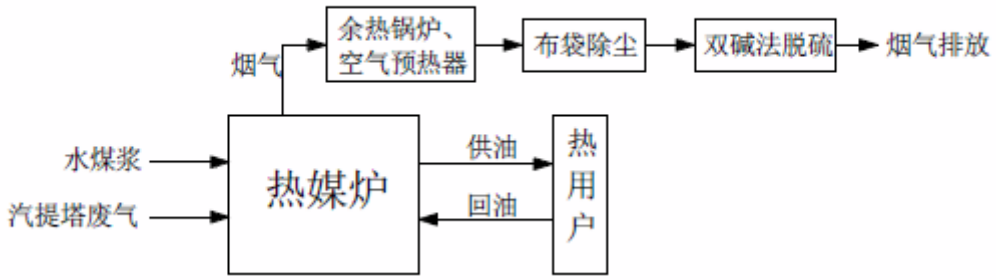
1-9

		/	17.2034 t		/

1-10

	1450 /	24	12
	1000 /	3	3
	/	27	15

1



1-1

325

285

400

145~175

1MPa 1.8t/h

2

1

+ “ +

” “ SNCR ”

1-11

				“ + +SNCR ”	60m 1
	1			“ + +SNCR ”	
	2			“ + +SNCR ”	
	3			“ + +SNCR ”	

2

3

4

1-12

		t/a
		2400
	COD	0.84

	SS	0.48
		0.084
		0.012
	SO_2	729.6
		121.4
	NO_x	460.2
		5.06
		7.54
		0.13
		0.002
		0.05

1

30°45′36″~31°13′41″ 120°21′4″~53′59″

82.95 3.6 42500

4200 15000

2-4

8t/m2

16.1 1316 1908.1

230 3.3 /

1

2

—— ( )——

( ) ——

2 3m 480m

200m

30m

1

2 —— 0 3.2m

—— fk=80 120kPa

3 1.0 18m fk=40 60kPa

4 0 6.0m — fk=200 300kPa

5 0 20m — fk=100 160kPa

6 0 10m — fk=250 300kPa

3 5

VI VI

3

2-1

2-1

1			15.8
			39.0
			-6.6
2			2.5m/s 3.2m/s
			32.1m/s
3			1015.7hpa
4			1069mm
5			SE 17.2%
			NW 5.4%
			SE 10.8%
6			2200h

4

1

40.5km

2.20 5.20

2 20

2

2-3m 5m

-- -- --

500-3000t/d 10-40m

1500-3200t/d 3-6m

5

1

“ ”

2

1

1176.6

40.01 40.06 “ ” “ ”

133.5 8.3

19421 25 15

2

“ ”

2013

“ ” 100 15.4%

270 12.5% 66 23.1%

5.56 11% 4.05

29

3

140

4

1

2

30 m^3/d 50 m^3/d 10 m^3/d

40 m^3/d

90 m^3/d

2 2 500KV 220KV 13

8400MVA

3

5 2012-2030

2005-2020 2006

[2006]145 2012-2030

“ ”

6

1.74km^2

2007 2 8

[2007]32

PTA

“ ”

ECS

2013 2

[2013]6

1.84km^2

5 25

/ 125 / 2

50 / 3

75 /

198 /

0.66

1200m^3/h

1 m^3/d 0.5 m^3/d 0.5 m^3/d 0.4 m^3/d

“ + + ”

“ + + + + ”

3

2

250 4 500 3 PTA 1 120 PTA

2013 2 [2013]100

180m 150×40m × 4 500 1000 4 PTA

3000t/d 2010 8 30 [2010]721

1 3 5000m^3

4

110/10kV

220kV

7

1

2-1

1			
2	1 2 3		
3	50		
4	50m	50m	
5	200		

2

2-2

1			
2			
3			
4			
5			
6			

7			
8			
9			
10			

2-3

1				
2		100%		
3				
4		1		
5		VOCs 300 VOCs		
6		[2017]134 200		
7				
8				
9				

3

2-4

		G318 G318 G318 G318	/			

8 “ ”

1

2-5

2-5

				km^2		
	12341		5 1	180.8	/	180.8
				2.14	/	2.14

2

2018 2018 NO_2

$PM_{2.5}$ PM_{10} O_3

2020

72%

2018

“

”

“ ”

2019 95% 2020

2.4 /

92% 98%

2020 III

65%

GB3838-2002

2 4a

(GB12348-2008)2 4

3

9 “ ”

2

2019 35 / 65 /

10

[2018]122

2019 35 /

65 /

1

- HJ2.2-2018

2018

9~15 /

36~45 / 59~74 / $PM_{2.5}$

36~40 / CO 95 1.2~1.4 /

8 90 153~176 /

3-1 CO mg/m³ ug/m³

				%	
$PM_{2.5}$		36~40	35	102.85~114.28	
SO_2		9~15	60	15~25	
NO_2		36~45	40	90~112.5	
PM_{10}		59~74	70	84.2~105.7	
CO	95	1200~1400	4000	30~35	
O_3	8 90	153~176	160	95.6~110	

SO_2 CO NO_2 PM_{10} $PM_{2.5}$ O_3

“ ”

60 /

30%

2

HJ2.3-2018

B 2018

“ ”

50 24% 52% 24%

“ ”

“ ”

2019

95% 2020 2.4 /

92%

98%

2020 III 65%

3

1

2019 7 29 2 3-2

3-2 **Leq dB(A)**

N1	1m	4a	56.4	70		47.5	55	
N2	1m	2	54.3	60		48.5	50	
N3	1m	2	54.6	60		48.8	50	
N4	1m	4a	56.9	70		47.6	55	

3-2 1m

GB3096-2008 2 4a

4

2 3-5

3-5

X Y

m m

1

CODcr

GB3838-2002 SS

SL63-94 4-1

4-1

GB3838-2002	1	pH	6 9
		CODcr	≤30
			≤1.5
			≤1.5
			≤0.3
SL63-94	3.0.1-1	SS	≤60

2

GB3095-2012

SO_2 NO_2 PM_{10} $PM_{2.5}$ CO

(GB3095-2012) 1

4-2

4-2

	(GB3095-2012)	1	SO_2	μg/m^3	500	150	60
			PM_{10}		——	150	70
			$PM_{2.5}$		——	75	35
			NO_2		200	80	40
			CO		10000	400	——
			O_3		200	160	——

4

GB3096-2008 4a

GB3096-2008 2 4-3

4-3

	GB3096-2008	2	dB A	60	50
		4a		70	55

1

GB13271-2014 3 4-4

4-4

		mg/m^3
	GB13271-2014 3	20
SO_2		50
NO_X		150

2

GB3096-2008 4

GB12348-2008 2 4-5

4-5

1m		2		60	50
1m		4		70	55

4-6

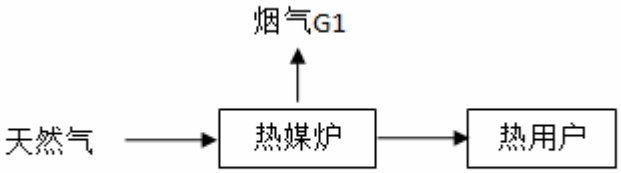
4-6 **t/a**

		2400	0	0	2400	0	/
	COD	0.84	0	0	0.84	0	/
	SS	0.48	0	0	0.48	0	/
	NH_3-N	0.084	0	0	0.084	0	/
	TP	0.012	0	0	0.012	0	/
	SO_2	729.6	21.025	708.575	21.025	-708.575	0
		121.4	35.04	86.36	35.04	-86.36	0
	NO_x	460.2	163.9	296.3	163.9	-296.3	0
		5.06	0	0	5.06	0	0
		7.54	0	0	7.54	0	0
		0.13	0	0	0.13	0	0
		0.05	0	0	0.05	0	0
		0	0	0	0	0	/

SO_2 NOx

1

15



5-1

GB12523-2011

4

2.5kg/d 10kg/d

2.2

2.2.1

15

8760 m^3/a SO_2 NO_X

4 6 23.3t/h 3718

m^3/a SO_2 NO_X 1

45m 1#

1 3 16.6t/h 1324 m^3/a

SO_2 NO_X 1 45m 2#

2 3 23.3t/h 1859 m^3/a

SO_2 NO_X 1 45m 3#

3 3 23.3t/h 1859 m^3/a

SO_2 NO_X 1 45m 4#

2010 4430“

- ”

2	2#		17626	0.363	3.178
		SO_2	29376	0.605	5.296
		NOx	137315	2.828	24.772
3	3#		17603	0.509	4.462
		SO_2	29361	0.849	7.436
		NOx	137329	3.971	34.782
4	4#		17603	0.509	4.462
		SO_2	29361	0.849	7.436
		NOx	137329	3.971	34.782
					21.025
		SO_2			**35.04**
		NOx			**163.9**
					21.025
		SO_2			**35.04**
		NOx			**163.9**

5-4

		t/a
		21.025
	SO_2	**35.04**
	NOx	**163.9**

2.2.1

2.2.3

70~85dB(A)

5-5

		( )	dB(A)		(m)		dB(A)
1		15	80		E20		25
2		1	75		W18		20
3		15	85		S26		30
4		15	70		/		25
5		15	75		E20		25

2.2.4

			mg/m^3	t/a	mg/m^3	kg/h	t/a	
	1#		19.176	8.923	19.176	1.019	8.923	
		SO_2	29.361	14.872	29.361	1.698	14.872	
		NO_x	137.311	69.564	137.311	7.941	69.564	
	2#		17.626	3.178	17.626	0.363	3.178	
		SO_2	29.376	5.296	29.376	0.605	5.296	
		NO_x	137.315	24.772	137.315	2.828	24.772	
	3#		17.603	4.462	17.603	0.509	4.462	
		SO_2	29.361	7.436	29.361	0.849	7.436	
		NO_x	137.329	34.782	137.329	3.971	34.782	
	4#		17.603	4.462	17.603	0.509	4.462	
		SO_2	29.361	7.436	29.361	0.849	7.436	
		NO_x	137.329	34.782	137.329	3.971	34.782	

	/			/

	/						

			dB A	
			80	2 4
			75	
			85	
			70	
			75	

1

5 60L/(

•) 15% 0.255m^3/d

2

3

70~85dB(A)

1 22:00 6:00

2

3

4

5

4

5

1

2

15

SO_2 NO_X 4 45m

SO_2 NO_X

4

70~85dB(A)

(1)

HJ/T2.4-2009

G8AE12 |2Å;.?ò 5Ð4.c_#9P2m0-X0 Å((1)$T-À8CE0 7.9312-4.62 5Ä08Ä6D9)95ô0?4!ñJ/T2.4-L8 P0×7.9Ä

7-1

7-1 **dB(A)**

1m	36.12	
1m	36.52	
1m	37.66	
1m	37.52	

5km/h

GB12348-2008 2 4

5

ʒ˂ ɕɨɤ ʒ˂

” ”

8-1

8-1

						( )	
	1-4#	SO_2 NO_X	4 45m		GB13271-2014	25	
	/					——	
					GB12348-2008 2 4	5	
						——	
						——	
			——			——	
			——			——	
			——			——	
						/	
						30	

1

2019-320509-28-03-649295

15

8412

8760h

2

(2011

) 2013 2012 2013

2007

2013 2013

[2019]32

[2019]32

3

“

”

4

1

2 SO_2 NO_X

4 45m

SO_2 NO_X

3

(GB12348-2008)2 4

4

5

1

SO_2 NO_X

4 45m SO_2 NO_X

2

3

GB12348-2008 2 4

4

6

SO_2 NOx

GB3095-2012

SO_2 NOx

GB3838-2002 IV GB3096-2008 2

4a

9-1 **t/a**

	1-4#		21.025	0	21.025
		SO_2	35.04	0	35.04
		NO_x	163.9	0	163.9

9-2 **t/a**

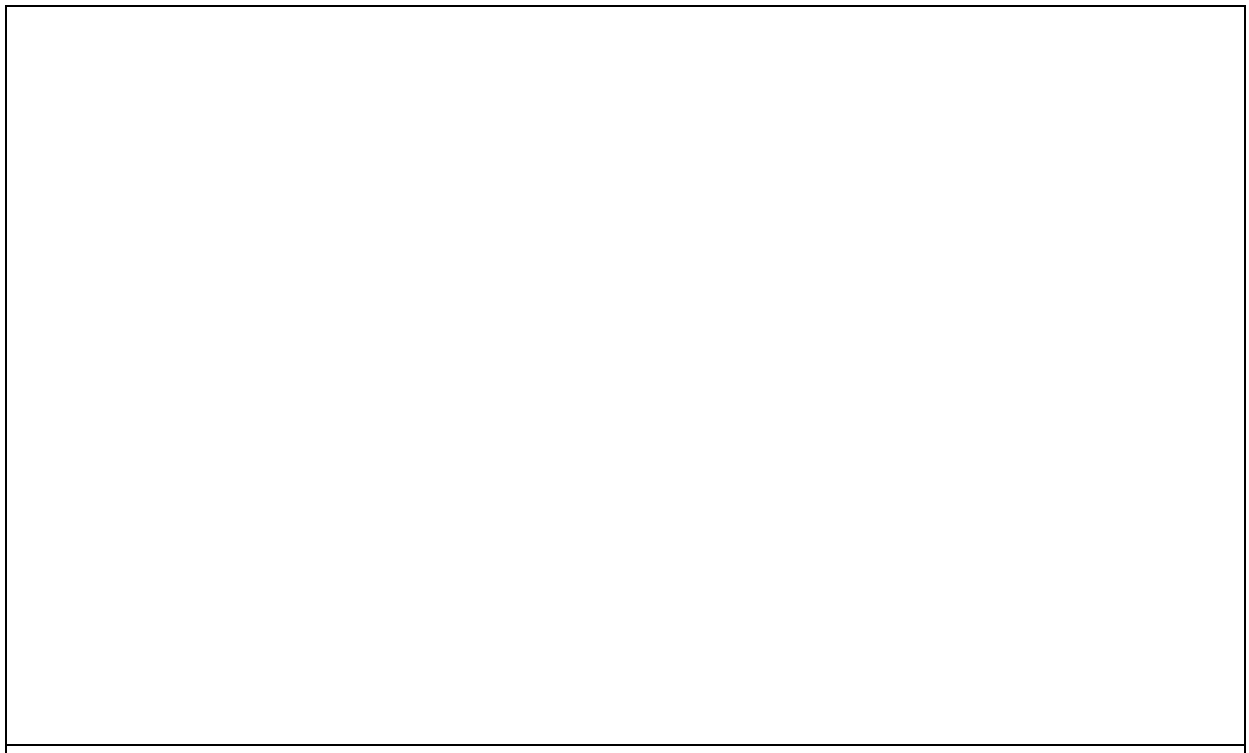
		2400	0	0	2400	0
	COD	0.84	0	0	0.84	0
	SS	0.48	0	0	0.48	0
	NH_3-N	0.084	0	0	0.084	0
	TP	0.012	0	0	0.012	0
	SO_2	729.6	21.025	708.575	21.025	-708.575
		121.4	35.04	86.36	35.04	-86.36
	NO_x	460.2	163.9	296.3	163.9	-296.3
		5.06	0	0	5.06	0
		7.54	0	0	7.54	0
		0.13	0	0	0.13	0
		0.05	0	0	0.05	0
		0	0	0	0	0

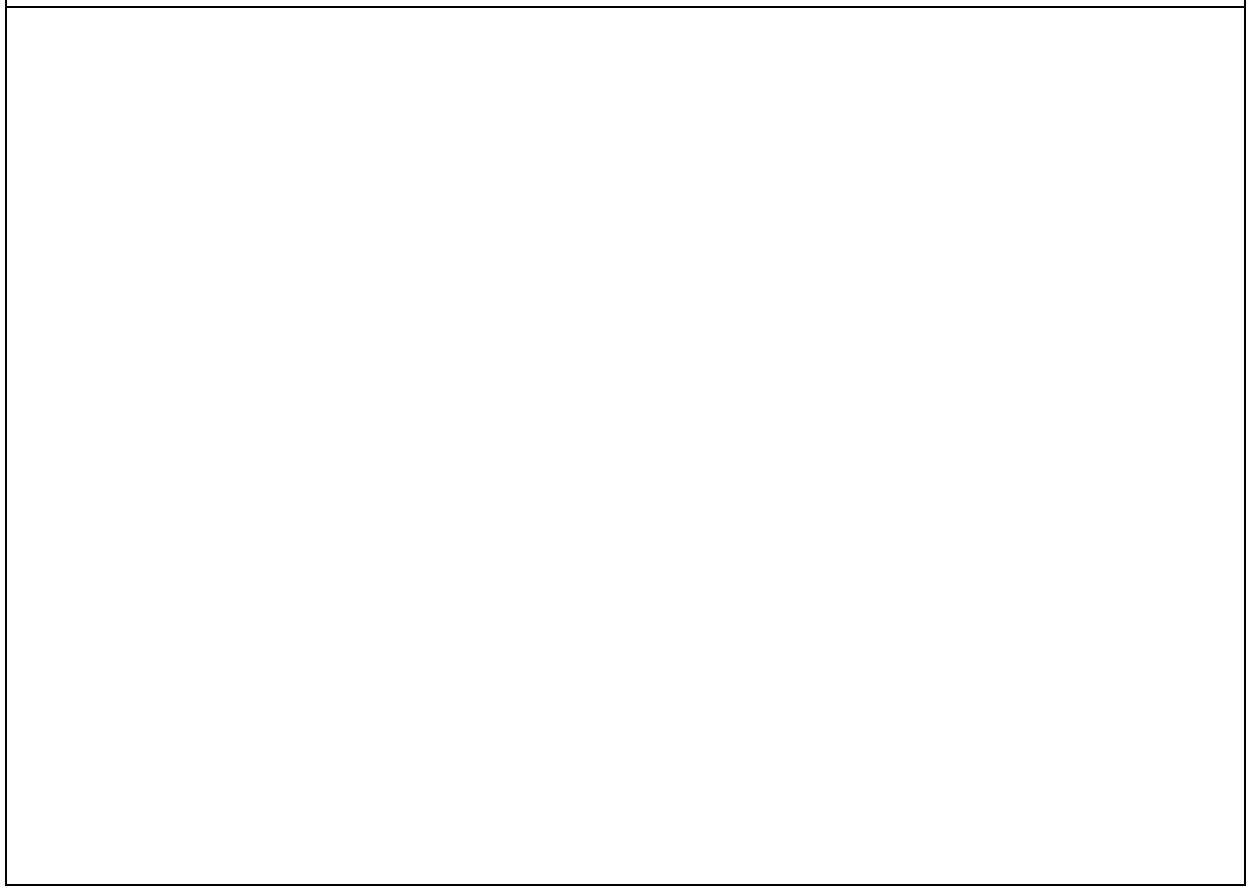
7

4-6

1.

2.





1
2
4

1
2
3