

30000m³/h

用于征求意见

1 概述

1.1 建设项目的特点

1.1.1 项目建设背景

“

”

2021-2035

2025

1993

2002-2

200

“30000m³/h

”

2023 3 8

2303-140762-89-05-807872

1.1.2 项目特点

1

TSA

PSA

TSA



1.2 环境影响评价的工作过程

2023 2

30000m³/h

1.3 主要环境问题及环境影响

1.3.1 主要环境问题

1.3.2 主要环境影响

1

PM₁₀ PM_{2.5} O₃

2

3

1.4 政策及规划情况

2020 36

“ ”

2021 25

“

”

用于征求意见

“ ”

5km

5.1

2.3.2 地表水环境

HJ2.3-2018

“ ”

B

2.3.3 地下水环境

HJ 610-2016

“ ”

2.3.4 声环境

HJ 2.4-2021

“

”

200m

2.3.5 土壤环境

HJ 964-2018

“

2.3.6 生态环境

HJ 19-2022

“

”

2.3.7 环境风险环境

HJ169-2018

2.4 评价标准

2.4.1 环境质量标准

1

SO₂ NO₂ CO PM₁₀ PM_{2.5} O₃

GB 3095-2012

NH₃

HJ2.2-2018

D

2.4-1

2.4-1

		24	1		
PM ₁₀	70	150	—	μg/m ³	GB3095-2012
PM _{2.5}	35	75	—		
SO ₂	60	150	500		
NO ₂	40	80	200		
O ₃		160	8		
CO	—	4		mg/m ³	
NH ₃	—	—	200	μg/m ³	HJ2.2-2018 D

2

3

GB3096-2008

3

2.4-2

GB3096-2008

dB(A)

		dB A
3		65
		55

2.4.2 污染物排放标准

1

NO_x

GB 16297-1996

2

2.4-3

2.4-3

		(kg/h)	mg/m ³	
		0.77	240	GB 16297-1996 2
		0.77	240	

NH ₃		GB14554-93		1
2.4-4				
2.4-4	GB14554-93		1	kg/h
				kg/h
GB14554-93		NH ₃		4.9

()				
GB 37822-2019		2.4-5		
2.4-5	GB 37822-2019		mg/m ³	
	6	1h		
	20			

2				
1			GB12523	
2			GB12348	
2.4-6		2.4-7		
2.4-6	GB12348-2008		dB(A)	
3	65		55	
2.4-7	GB12523-2011		dB(A)	
70		55		

3				
1	GB18597-2023			
2				

2.4.3 其他要求

1				
2.4-8				

2.4-8		$\mu\text{g}/\text{m}^3$	
1		1h	2000 1000

2

NO_x

GB31571-2015

5

2.4-9

2.4-9

		(mg/m^3)	
		100	GB 31571-2015
		100	

GB31571-2015

7

2.4-10

2.4-10

GB31571-2015

7

mg/m^3

1		4.0
---	--	-----

2.5 政策及规划符合性分析

2.5.1 与环保政策的符合性分析

2.5.1.1 与《加强重点行业建设项目区域削减措施监督管理的通知》（环办环评〔2020〕36号）符合性分析

[2020]36

(2020.12.30)

()

$30000\text{m}^3/\text{h}$

()

15.822t/a 8.6t/a 31.644t/a

17.2t/a

()

		VOCs	NOx
BD		2.5-1	
VOCs		2.5-1 VOCs	t/a
		VOCs	NOx
		15.822	8.6
		31.644	17.2
			BD
		31.644	17.2

17.2t/a

31.644t/a

()

BD

30000m³/h

2.5.2 与园区规划及规划环评符合性分析

2.5.2.1 与《介休化工循环经济工业园区总体规划（2018-2035）》符合性分析

2015 4 2

[2015]16

2013--2030

2013-2030)

111.7

“ ” “ ” “ ” “ ” “ ” “ ”

117.7

—

2013-2030)

用于征求意见

2.5-1

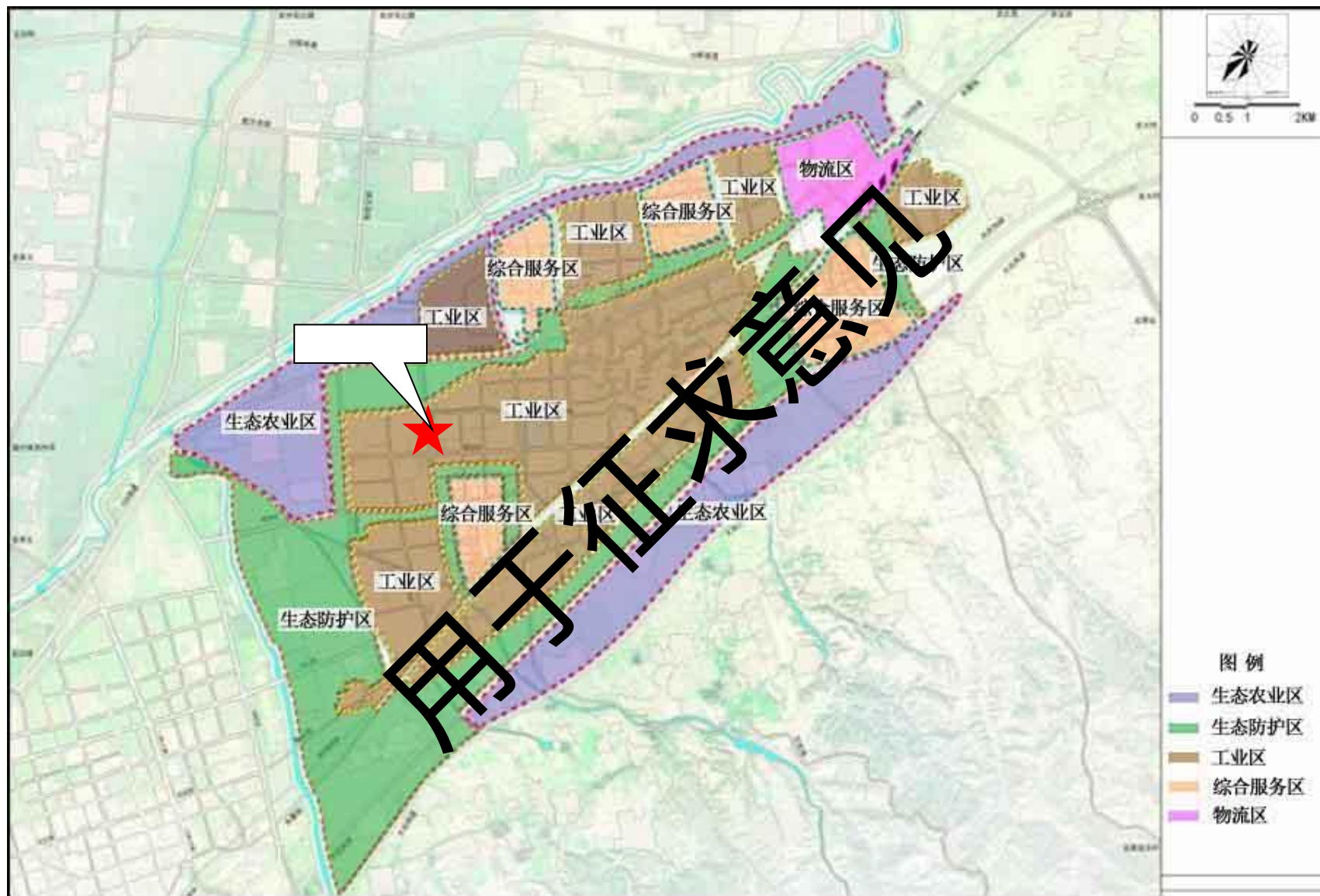


图 2.5-1 本项目与介休化工循环经济工业园区位置关系

2.5.2.2 与《介休市化工循环经济工业园总体规划（2013-2030)年环境影响报告书》及审查意见的符合性分析

“ ”

[2014]1395 2.5-2 2.5-3
2.5-2 2.5-3

2.5-2

1		80 2007 1 2 2012 2012 14357.76t 8662.56t 8795.5t 27.14kg t 3 SO₂ NO_x COD 152.86t 3.08t 282.3 t 1.2		
2		1 TSP PM₁₀ PM_{2.5} SO₂ 4.76% 6.35% 4.76% PM_{2.5} 190% 2 2# 3# 1.02~2.03 3 108 4 P_i 1 0.7 CH₃OH CO NO₂ BaP NH₃ 106.6% 110% 113.3% 110.6% H₂S 0.89% COD_{Cr} BOD₅ BOD₅ COD_{Cr} 38.1~41 1# GB3096-2008 3 pH		

		5		
		6		
3		1 94% 14357.76t 51% 28% 15% 8662.56t 41% 38% 15% 8705.43t 49% 30% 17% 2 12670.2t 746.42t 7375.67 7622.9t COD 13595t 869.56t 7632.47t COD 13623.8t 869.94t 100.6 141.4 141.4kg 3 484.22 t 287.72 t 287.57	B	
4		1 SO₂ NO₂ PM₁₀ PM_{2.5} GB3095-2012 CO GB3095-2012 BaP NH₃ H₂S H₂S 2 2013-2015 7375.67	PM₁₀ PM_{2.5} O₃	

		t COD 12670.2t 746.42t 2016-2020 7649.97 t COD 13595t 869.56t 2021-2030 7662.47 t COD 13623.8t 869.94t 100.6 141.4 141.4kg 2 m³/d 8.3 m³ 1 3 484.22 t 287.72 t 287.57 t 2015 1.5 2020 1.99 2030 2.33 3 t 4		
6	2	BenMAP CE SO ₂ NO ₂ PM _{2.5} 0.0645‰ 0.038‰ 0.0134‰ 0.0142‰ BaP ILCR 10 ⁻⁶ BaP 37.57 min 37.57 min 32.87min 28.18 min 23.48 min BaP 3 D 0.5m/s 1.5m/s LC50	BaP -1 50m -2 170m 30	

		3850m	3316		
		10006			
7					
9		“ ”	“ ”		

2.5-3

1		“ ”			
2					
3		“ ”	“ ”		

4	“ ”	“ + ”	
5			
6	“ ”		
7	“ ”		
8			
9	[2012]54		
10	“ ”	HJ819 HJ947	
11		/	/

用于征求意见

2.5.2.3 与《介休经济技术开发区总体规划（2018-2035）》符合性分析

2016 7 19 [2016]94

2018-2035

2018-2035

2018-2025

39.3611 km²

33.3297km²

“ ” “ ”

“ ”

108
用于征求意见
084 ()

“ ” “ ” “ ”

3 500 /

“

”

2.5.3 与“三线一单”符合性分析

2.5.3.1“三线一单”符合性分析

1 “ ”

“

”

“

”

“

”

“

”

2022

2
2020 26

“ ”

2020 26
3

2.5-2

“ ”

2.5-4

2021 25

“ ”

“ ”

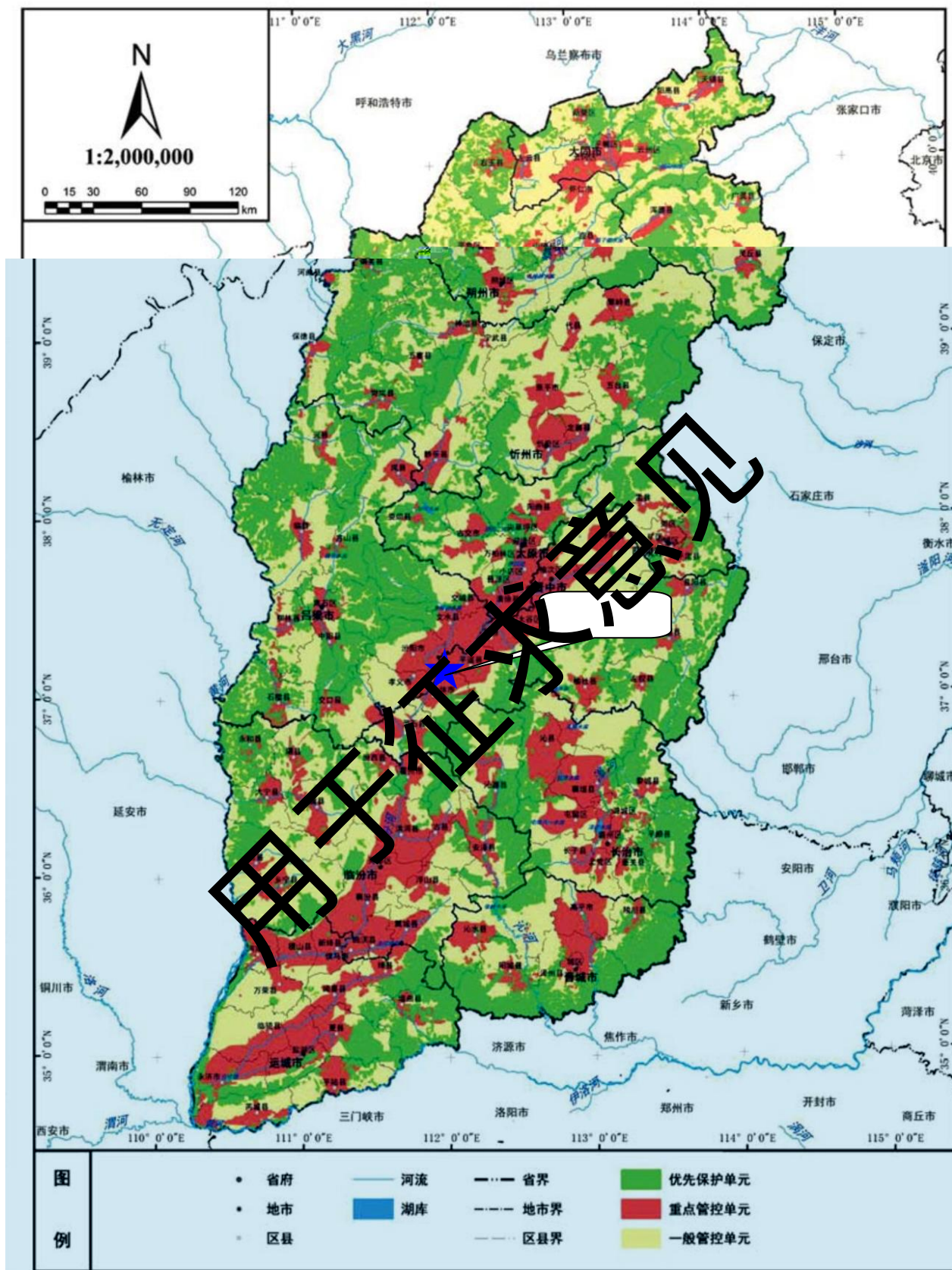
2.5-3

“ ”

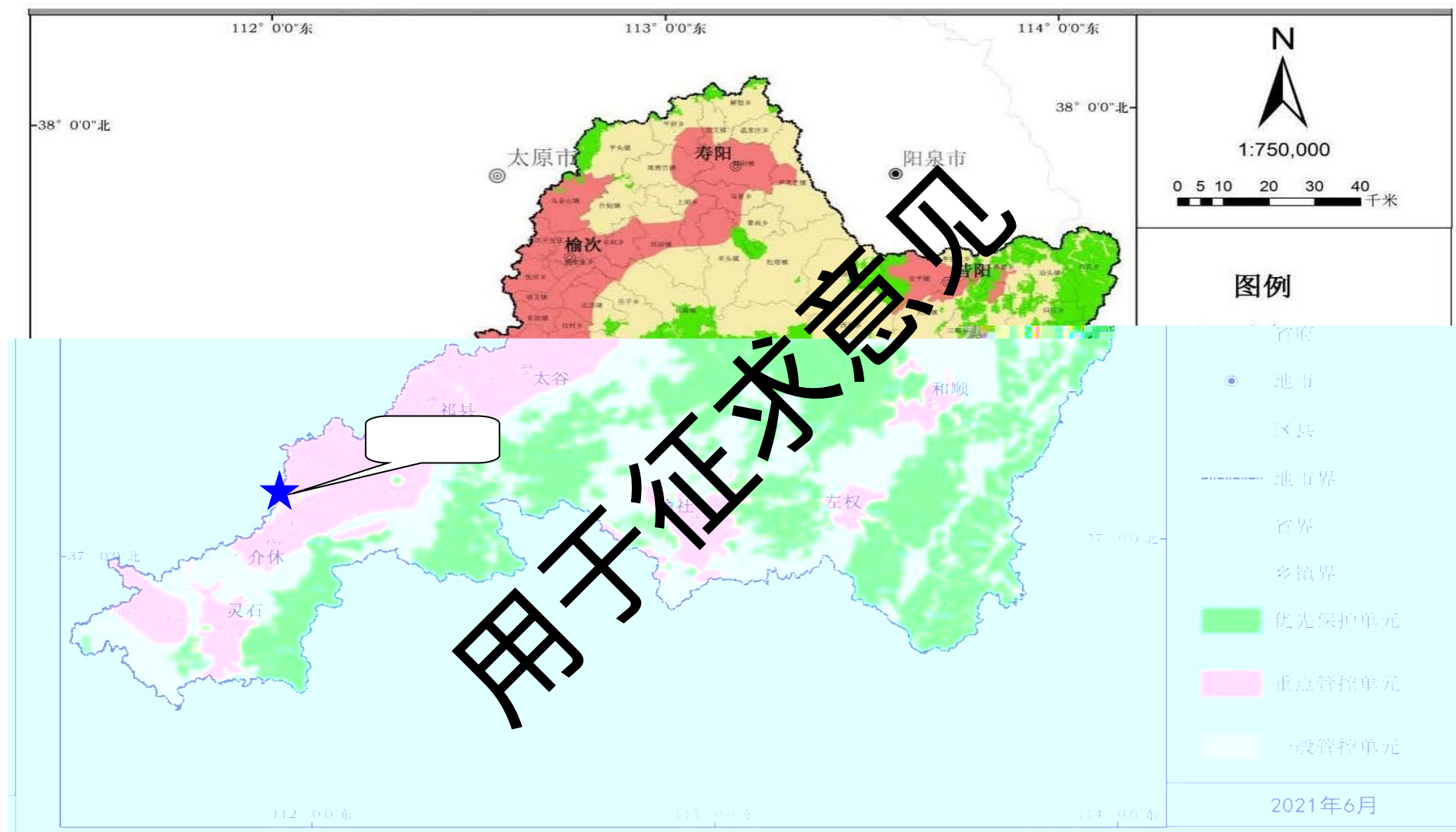
2021 25

2.5-5

用于征求意见



2.5-2



2.5-3

2.5-4

			“ ”	
		“ ”	“ ”	
			“ ”	
		“ ”	“ ”	
		“ ”	“ ”	
			“ ”	

2.5-5

“ ”

			“ ”	
		1		
		2	“ ”	
		3		
		4		
		5		
		1	“ ”	
		2	“ ”	
		3	“ ”	
		4		
		5	“ ”	
		1		
		2		
		1	“ ”	
		2		
		3		
		4	“ ”	

GB31571-2015
GB31571-2015

GB18597-2001

		5	“ ”		
		6			

用于征求意见

2.6 主要环境保护目标

1.

2.6-1 2.6-1

2.6-1

	/°						/m	/
	111.98852472	37.08832841				SE	998	5700
	112.00628879	37.07938842				SE	2817	602
	111.97722295	37.09492518				SW	254	826
	111.95486676,	37.08193330				SW	2682	2765
	111.96353566	37.09482234				W	1460	1567
	111.95445824	37.09898160				W	2234	3588
	111.97356529	37.10810204				NW	1214	530
	111.96504342	37.10917681				NW	1771	1300
	111.97546030	37.11612051				NW	2014	1464
	111.98239035	37.10291731				N	500	1500
	111.99143310	37.10236577				NE	979	870
	112.00551789	37.11732045				NE	2978	5845
	112.00770549	37.09994668				E	2333	2527
	111.99091451	37.08535495				SE	1390	490
	111.99838596	37.08176280				SE	2120	75
	111.98041132	37.11644208				N	1995	60
	112.00319206	37.11644020				NE	2746	45

2.

2.6-2

		NW	1.9km	(GB3838-2002) V

3.

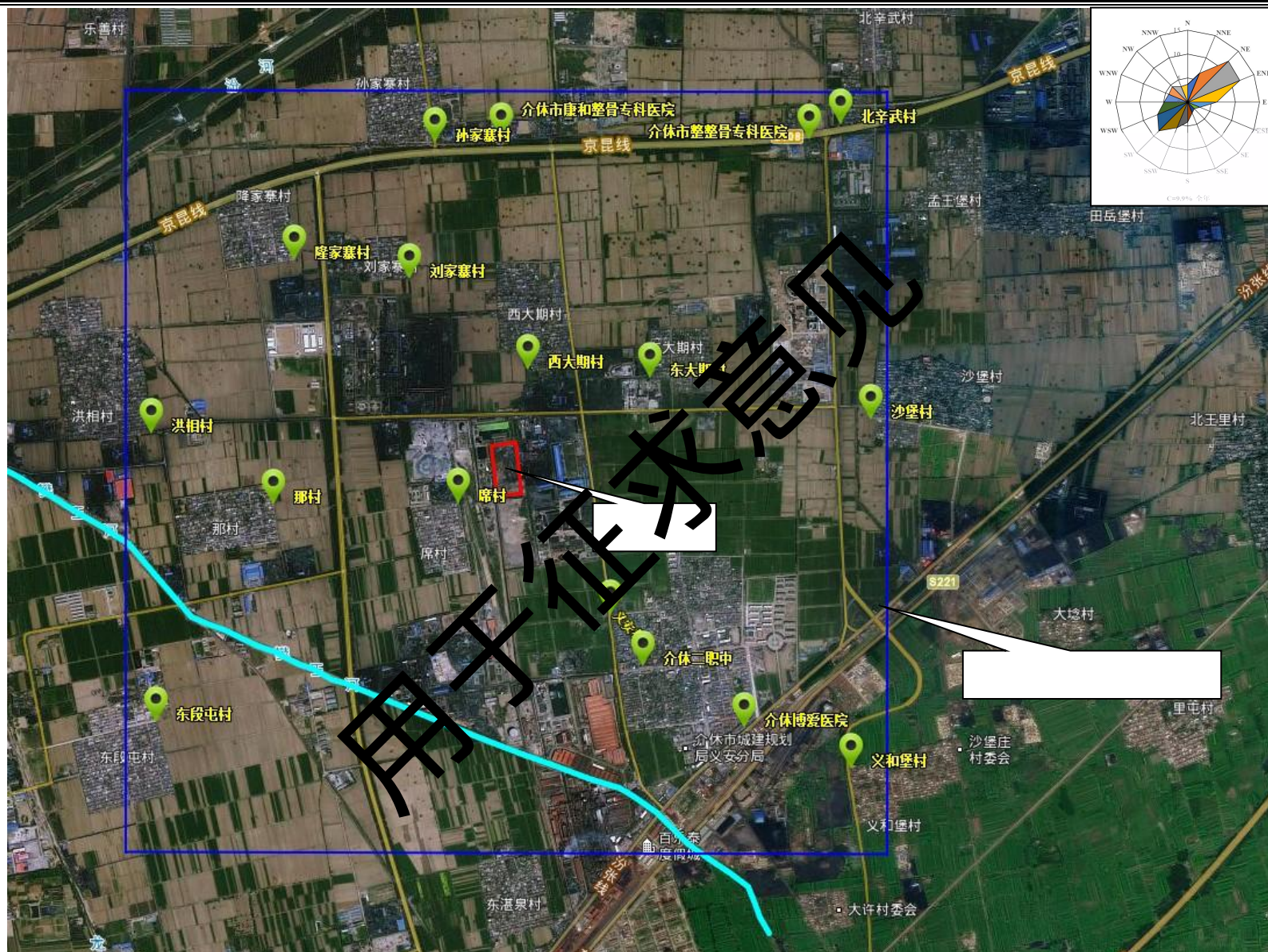
2.6-3

2.6-1

2.6-3

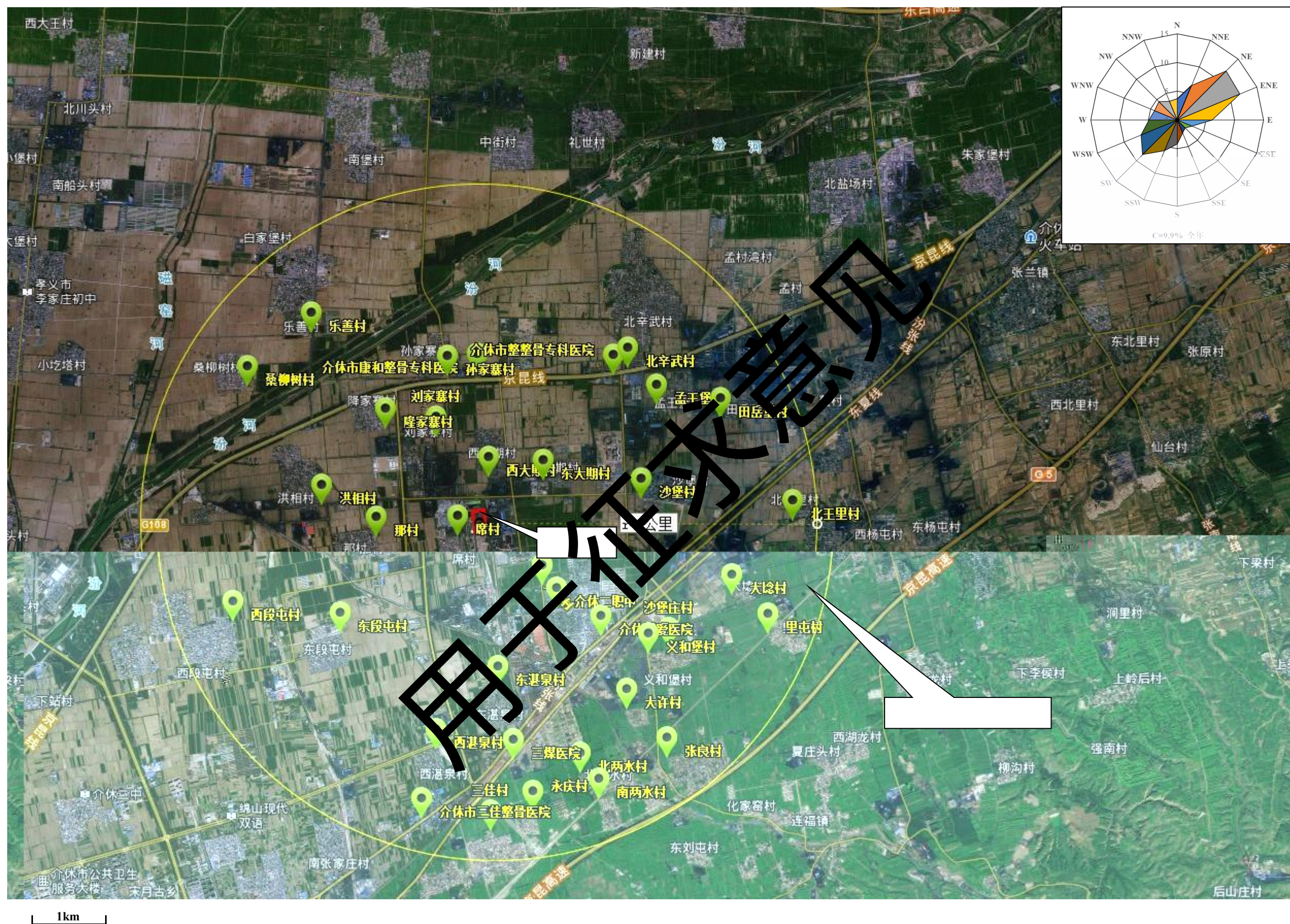
	5km				
1		SE	5700		5700
2		SE	2817		602
3		SW	254		826
4		SW	2682		2765
5		W	1460		1567
6		W	2234		3588
7		NW	1214		530
8		NW	1771		1300
9		NW	2014		1464
10		N	500		1500
11		NE	979		870
12		NE	2978		5845
13		E	2333		2527
14		SE	3210		680
15		SE	4138		3320
16		S	2298		1800
17		S	3363		1180
18		S	4431		5121
19		S	4167		1238

	20		S	3758		1970
	21		S	4205		2080
	22		SW	4048		3700
	23		NW	4129		1374
	24		NW	3806		2649
	25		NE	3555		1767
	26		NE	2989		913
	27		E	3758		552
	28		SE	3528		540
	29		SE	4204		1700
	30		SE	3003		1140
	31		N	3739		60
	32		N	4376		60
	33		SE	3500		490
	34		SE	2220		75
	35		N	1995		60
	36		N	2746		45
	10km					2326
	5km					61598
	E					E1
					24h	/km
	1		V		/	
	10km					
					/m	
	1		-	V	5km	
	E					E3



1km

2.6-1



2.6-2

3 工程分析

3.1 焦化项目工程分析

3.1.1 焦化工程概况

	200	/	
2004 146	“	200	/
	”		
	100	/	2005 4 2006 8
[2006]101			2023 06 06
911400007572794291001P			
100	/	2010 1	2011 12 22 [2016]341
			2022 07 15
91140000113036931N001P			

3.1-1

1	200 /	2×55 JN60-6A	2004 146 2004 4 14	2006 8 [2006]101	911400007572794291001P 2022-06-06 2027-06-05	
2	200 /	2×65 JN60-6A		2016 12 22 [2016]341	91140000113036931N001P 2022-07-15 2027-07-14	
3		1 140t/h 12MW 78t/h	[2005]185 2005 6 20	2016 12 15 [2016]32	-	-
4	150th	1 150t/h 25MW 84t/h	2022 60 2022 3 4	2022 12 15	-	-
5			2021 203 2021 7 17	2022 12 2	-	-

JN60-6

3.1-2

[illegible]

			2	70m ²	-
			3		-
			4	2 100m ² 200m ²	-
			4	6m ³	-
			2		-
			4		-
			2	23m ³	-
			3	1.6m 3.9m	-
			2	48m ³	-
			1	160m ³	-
			2	19.2m 2.8m	-
			2	500m ²	-
			1	1.6m 5m	-
			2	40m ³	-
			4	126m ²	-
			139	3.99m	-
			1	2.8m 27.2m	-
			2	5.6m 35.3m	-
			5	155m ²	-
			3	126m ²	-
			4	540m ²	-
			1	5.6m 27.7m	-
				Φ3884mm×16681mm	-
				Φ2246mm×11950mm	-
				Φ2246mm×11950mm	-
				Φ2246mm×11950mm	-
				Φ1820mm×11730mm	-
				Φ1820mm×13160mm	-
				Φ3260mm×11550mm	-
				6180mm×5337mm	-
			56	300mm 4500mm	-
			56	300mm 4500mm	-
			2	900m ³	-
			2	170m ³	-
			4	1850m ³	-
			2	550m ³	-
			1	50000m ³	-

		2	130m ³	-
				-
		2		-
				-
				-
				-
		6	3 75m ³ /min 1 53m ³ /mi 2 43m ³ /mi	-
		1	4071kW 1 4070kW 1 5815kW 3	-
		3×50t/h	100t/h 2 1 “ + + +EDI”	-
				-
		3136m ³ /h 32°C	0.50MPa 45°C	-
		3136m ³ /h 32°C	0.40MPa 40°C	-
		350m ³ /h 16°C	0.5MPa 23°C	-
		350m ³ /h 32°C	0.35MPa 40°C	-
				-
				-
				-
				-
				-
				-
		42		
			+	
			+	SCR
			+	
		6		
		1		

			SCR	
			+	
			+	+
			+	
			VOG	
			DBAC	
			-A-	+
			+SMART	+
				-
			+	
				-
				-
			2 1000m³ 500m³	1 -

3.1.3 现有工程生产工艺

3.1.4 现有工程污染防治措施

3.1.4.1 废气污染防治措施

1

1

1

2

H

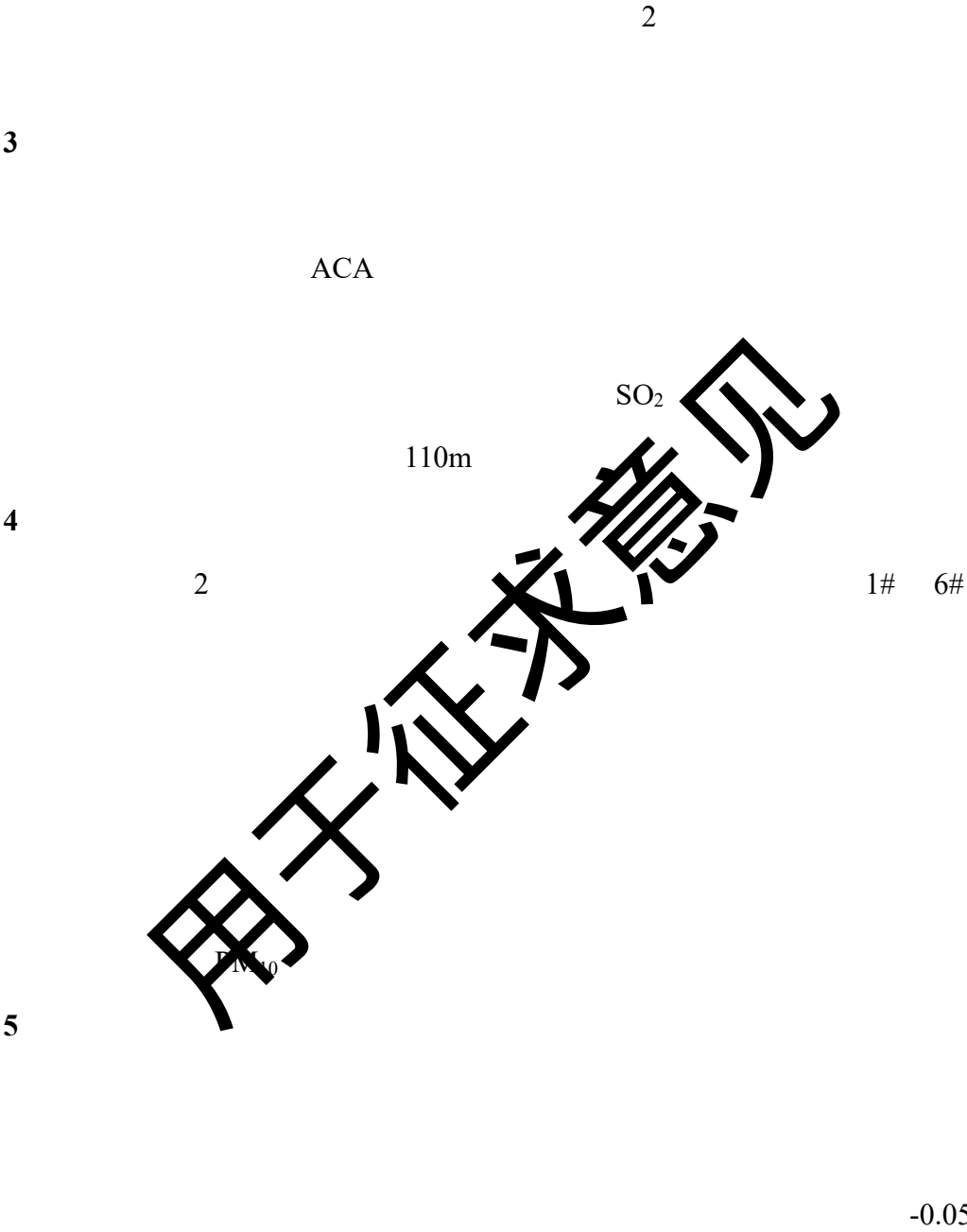
4

2 “

+

SCR ”

2 110m



-0.05kPa

-0.05kPa

VOCs

-0.05kPa

“

+

+

LDAR

VOCs

1

VOCs

200

VOCs

3.1-3

				/		
1						
2				+ SCR		
3				+		
4						

5					2#	
6					2#	
7						
11	6				6	
12			[a]			
13	1				1#	
14						
15						
16						
17				+		
18				+		
19						
20					1#	
21					6#	
22				+		
23					1#	
24				+		
25			[a]			
26				+	VOC	
27						
28						

用于征求意见

3.1-4

			mg/m ³	mg/m ³			
	DA005		30	0.6	25	9.08	
			30	0.3	6.8	2.23	
	DA006		150	2.3	124	87	
			30	0.4	26	9.1	
			15	0.99	6.4	2.3	
			80	3.36	4.42	3.97	
			8	3.6	4.63	3.99	
	DA007		80	1.99	2.0	1.3	
			30	0.01	4.82	0.8	
	DA008		15	6.7	8.1	7.53	
2#	DA010		10	3.4	3	3.61	
			50	6.4	7.6	7	
2#	DA011		50	7.2	7.3	7.25	
			10	5.2	5.5	5.3	
	DA012		15	6.4	7.4	7	
3	DA013		15	6.5	7.1	6.8	
4	DA014		15	6.2	8.9	7.55	
5	DA015		15	7.5	7.8	7.65	
6	DA016		15	6.6	7.7	7.15	
	DA034		30	2.04	5.88	2.79	
			70	1.09	64	12.29	
		[a]	0.0003	0.000031	0.00011	0.00006	
1#	DA036		15	6.2	7.7	6.92	
2#	DA037		15	5.6	8.2	6.9	
	DA038		15	6.8	7.5	7.15	
	DA039		15	7.6	7.9	7.75	

3.1-4

				mg/m ³		
--	--	--	--	-------------------	--	--

			mg/m ³					
	DA003		30	0.35	26	9.14		
			30	0.77	5.6	2.2		
	DA004		30	0.18	24	9.78		
			150	9.3	125	88.8		
			15	0.98	10.5	2.19		
			80	3.38	4.67	4.21		
			8	4.12	4.81	4.45		
	DA005		15	6.4	7.4	7		
	DA006		15	6.7	8.1	7.53		
1#	DA007		10	3.44	3.7	3.6		
			50	6.4	7.6	7.5		
3#	DA008		15	6.5	7.1	6.8		
4#	DA009		15	6.2	8.9	7.5		
5#	DA010		15	7.5	7.8	7.65		
6#	DA011		15	6.6	7.7	7.1		
	DA012		50	0.07	5.6	1.09		
			80	0.21	67	14		
1#	DA013		50	6.9	8.9	8.17		
			10	4.4	4.6	4.53		
	DA016		200	6	11	9		
			5	0.625	0.625	0.625		
			30	7.5	7.9	7.77		
			100	42	45	43.3		
	DA017	[a]	0.0003	0.00005	0.000104	0.00008		
			30	0.64	4.73	1.56		
			70	0.33	28.52	6.57		
VOC	DA018		50	3.15	4.69	3.67		
2#	DA019		15	7.6	7.9	7.75		

	DA020		15	6.2	7.7	6.95		
	DA021		15	5.6	8.2	6.9		

3.1-5

		mg/m ³	mg/m ³		
1#~4#		1	0.453~926		-
		0.5	0.214~0.272		-
		0.25	0.046~0.08		-
		0.4	ND		-
		0.02	ND		-
		0.01	ND~0.005		-
		0.2	0.11~0.19		-
		0.024	0.008~0.024		-
		0.01 μg/m ³	ND		-
		0.3	ND~0.495		-
5#~8#		6	1.2~1.41		-
1# 2#		2.5	0.428~0.624		-
		0.6	0.32~0.49		-
		2	0.37~1.17		-
		0.1	ND~0.007		-
		2.5 μg/m ³	2.08×10 ⁻³ ~3.25×10 ⁻² μg/m ³		-
3# 4#		2.5	0.435~0.623		-
		0.6	0.32~0.49		-
		2	0.41~1.17		-
		0.1	ND~0.007		-
		2.5 μg/m ³	2.08×10 ⁻³ ~2.53×10 ⁻² μg/m ³		-

3.1-6

2022

				1	2	3	4		1	2	3	4		
	DA005			-	-	-	-	24.219	3.65	3.17	3.09	4.87	14.78	
				-	-	-	-	24.219	0.496	0.54	0.65	0.7	2.386	
	DA006			-	-	-	-	229.189	28.82	45.37	29.98	29.49	133.66	
				-	-	-	-	49.842	2.06	4.43	3.28	2.62	12.39	
				-	-	-	-	24.921	0.89	0.92	1	0.92	3.73	
	DA007			-	-	-	-	70.2	1.56	1.42	1.52	3.73	8.23	
				-	-	-	-	26.25	0.234	0.17	0.21	0.46	1.094	
	DA034			-	-	-	-	12.65	1.03	0.84	0.87	1.04	3.78	
				-	-	-	-	29.484	2.66	5.85	3.91	2.83	15.25	
			[a]	-	-	-	-	/	0.00003	0.015	0.018	0	0.03303	
				-	-	-	-	/	0	0	0	0	0	
				-	-	-	-	/	0.443	0.57	2.04	2.47	5.523	
				-	-	-	-	/	0	0	0	0	0	
				-	-	-	-	/	0	0	0	0	0	
				-	-	-	-	/	0	0.0118	0.0119	2.44	2.4637	
				-	-	-	-	/	0	0	0	0	0	
			[a]	-	-	-	-	/	0	0	0	0	0	
				-	-	-	-	/	0	0	0	0	0	
				-	-	-	-	/	0	0	2.454	0.0202	2.4742	
				-	-	-	-	/	0	0	0	0	0	
				-	-	-	-	/	0	0	0	0	0	
				-	-	-	-	/	0	0	2.461	2.47	4.931	

	SO ₂	-	-	-	-	173.745	9.93	14.87	11.8	14.05	50.65	
	NO _x	-	-	-	-	229.189	28.82	45.37	29.98	29.49	133.66	
	VOCs	-	-	-	-	/	0	0	0	0	0	
		-	-	-	-	88.101	3.113	3.04	4.77	5.59	16.513	

3.1-6

2022

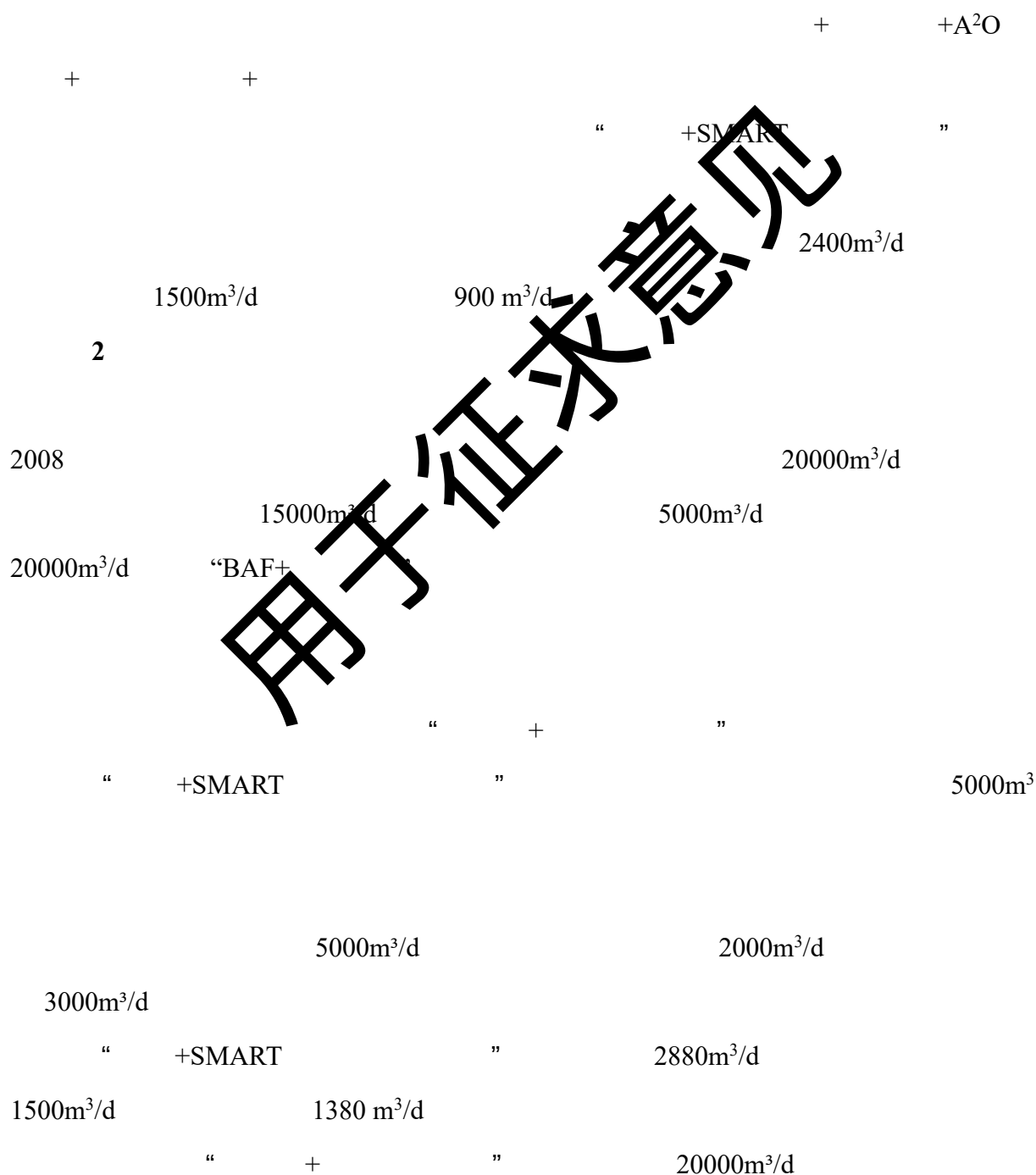
				1	2	3	4		1	2	3	4		
	DA003			-	-	-	-	20.7	2.74	5.94	3.32	2.35	14.35	
				-	-	-	-	20.7	1.69	0.8	0.7	4.26		
	DA004			-	-	-	-	42.6	2.38	4.23	4.08	4.8	15.49	
				-	-	-	-	213	38.58	54.99	44.03	53.11	190.71	
				-	-	-	-	21.3	1.34	1.12	1.33	1.45	5.24	
	DA012			-	-	-	-	7.5	0	2.85	0.34	0.23	3.42	
				-	-	-	-	22.5	0	7.11	2.96	3.53	13.6	
	DA016			-	-	-	-	2.74	0.103	0.09	0.48	0.15	0.823	
				-	-	-	-	/	0	0.009	0.03	0.03	0.069	
				-	-	-	-	0.91	0.13	0.0642	0.39	0.15	0.7342	
				-	-	-	-	9.12	0.81	0.354	2.16	0.8	4.124	
	DA017		[a]	-	-	-	-	/	0.003	0.058	0.018	0.018	0.097	
				-	-	-	-	10.8	0.65	0.64	0.88	0.49	2.66	
				-	-	-	-	25.2	3.35	3.12	2.35	2.03	10.85	
				-	-	-	-	/	0	0	0	0	0	
				-	-	-	-	/	0.43	1.58	1.68	1.94	5.63	
				-	-	-	-	/	0.006	0	0	0	0.006	

		-	-	-	-	/	0	0	0	0	0	
		-	-	-	-	/	0	0	0	0	0	
		-	-	-	-	/	0.00066	0	0	0	0.00066	
	[a]	-	-	-	-	/	0	0	0	0	0	
		-	-	-	-	/	0.00189	0	0	0	0.00189	
		-	-	-	-	/	4.238	0	0.009	0.0192	4.3162	
		-	-	-	-	/	0	0	0	0	0	
		-	-	-	-	/	0.042	0.003	4.91	0	4.955	
		-	-	-	-	/	0.006	0	0	0	0.006	
		-	-	-	-	/	70.95	3.62	7.9532	5.42	4.99	21.9832
	NOx	-	-	-	-	/	222.12	39.39	55.344	46.19	53.91	194.834
	VOCs	-	-	-	-	/	0	0	0	0	0	
	SO ₂	-	-	-	-	/	113.74	8.573	20.49	13.19	12.86	55.113
		-	-	-	-	/						

3.1.4.2 废水污染防治措施

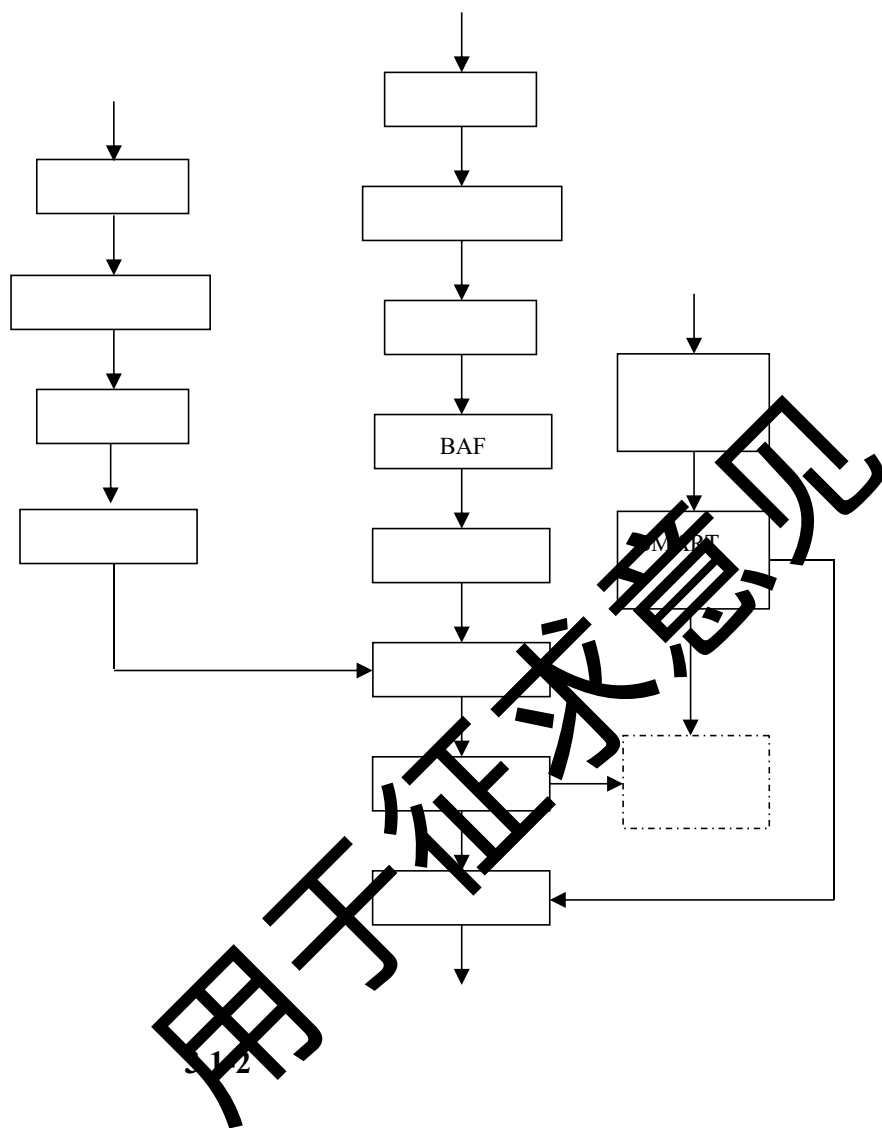
1

1



13000m³/d BAF

7000 m³/d



3.1-7

			mg/L	,mg/L				
DW001			150	130	140	133		
	pH		6 9	7.33	7.7	7.5		
			0.2	0.099	0.118	0.104		
			70	37	51	43		
	NH ₃ -N		25	1.5	2.36	1.86		
			0.5	0.08	0.104	0.092		
DW015	[a]		0.00003	3.00E-05	3.00E-05	3.00E-05		
			0.05	0.00107	0.0479	0.0167		
	NH ₃ -N		25	4	18	12		
			150	70	115	92		

3.1-8

			mg/L	,mg/L				
DW001			150	130	140	133		
	pH		6 9	7.33	7.7	7.5		
			0.2	0.099	0.118	0.104		
			70	37	51	43		
	NH ₃ -N		25	1.5	2.36	1.86		
			0.5	0.08	0.104	0.092		
DW015	[a]		0.00003	3.00E-05	3.00E-05	3.00E-05		
			0.05	0.00107	0.0479	0.0167		
	NH ₃ -N		25	4	18	12		
			150	70	115	92		

3.1.4.3 固体废物污染防治措施

2022

3.1-9

			142667	142667	0	
			7634	7634	0	
			19143	19143		
			1095	1095	0	
			586	586	0	
			17485	17485	0	
			4871	4871	0	
			26	26	0	
			72415	72415	0	
			13563	0	13563	

16m²



3.1.4.4 噪声污染防治措施

1

80 120dB A

1

2

3

4

5

6

2

U

用于征求意见

3.1-10			dB A			
	1#	2#	3#	4#	5#	6#
	56.4~57.6	57.8~58.1	55.5~56.0	54.8~56.4	54.7~58.4	55.3~55.7
	65	65	65	65	65	65
	47.6~48.4	45.8~47.0	45.1~46.6	45.3~45.9	46.2~48.0	45.5~46.6
	55	55	55	55	55	55

3.1.4.5 土壤污染防治措施

1

2

3

4

用于征求意见

GB/T50934

3.1.4.6 交通运输防治措施

1 500m³

140781-2021-064-H

3.1.5 现有工程存在的环境问题及“以新带老措施”

3.2 拟建项目工程分析

3.2.1 项目概况

3.2-1

	30000m³/h
	15000Nm³/h 15000Nm³/h
	☒ ☐ ☐
	111.974476099°, 37.096471157°
	12
	64529
	150

3.2.2 工程建设内容

TSA

PSA

15000Nm³/h

15000Nm³/h

用于征求意见

[illegible]

			“ + + +EDI”				50m³/h		
			TSA		MDEA				
		4	1586 m³/h	1	4	600m³/h			
			2 10KV						
			2.5 MPaG		4.5 MPaG				
			1						
		1							
		200m	50℃	0.33MPa	DN1200mm				
		TSA	TSA	TSA					
			MDEA	15m	NOx	SCR			
		MDEA							
		MDEA							
		PSA	PSA	H ₂	N ₂	CH ₄	CO	CO ₂	
			N ₂						
			LDAR		LDAR				
			NOx						
			+ +A2O +						
			+SMART						
			+						

			50m ²	
			1100m ³	2000m ³
			+ +A2O + +	200m ³ /h

3.2-3

			2.0kPa 40°C 2	
			0.5Mpa 40°C TSA 2.5MPa G	
			DN2000	
			4 DN200 3 1	
			1 F=60m ² 2 F=120m ² 1 DN1200	
			4 2 2 1	
			F=60m ² 1 F=120m ² 1 DN1400	
			TSA TSA	
			0.1ppm + + + + 1 DN1800mm 3	
			DN2600mm 1 DN1800mm 1 DN2600mm	
			CH ₄ C ₂ H ₆ H ₂ CO DN2400	
			500 kcal	
			CO CO H ₂ CO ₂ DN2000 DN2000	
			CO ₂ MDEA N- CO ₂ 0.2%	
			MDEA 1 φ2800mm 2 φ2800mm 2 Q=40m ³ /h H=240m	
			2 Q=110m ³ /h H=220m	
			H ₂ “ PSA+ PSA ” 12 DN1600PSA	

			25MPa		
				1 1	
			5 m ³	6KPa	
			1 3000m ³	25MPa	
			TSA MDEA		
			1586 m ³ /h 1	4 600 m ³ /h	
			4		
				10KPa	
			2.5 MPaG	4.5 MPaG	
			1		
			1		DN1200mm
			200m	30°C	0.33MPa
		TSA	TSA	TSA	
			MDEA		NOx SCR
				15m	
		MDEA			
		MDEA			
		PSA	PSA	H ₂ N ₂ CH ₄ CO CO ₂	
					N ₂
				LDAR	LDAR
					NOx
				+ +A2O +	
			+	+SMART	

			+		
			50m ²		
			1100m ³		
			2000m ³		
			+ +A2O + + 20 m ³ /h		

用于征求意见

200 150 50

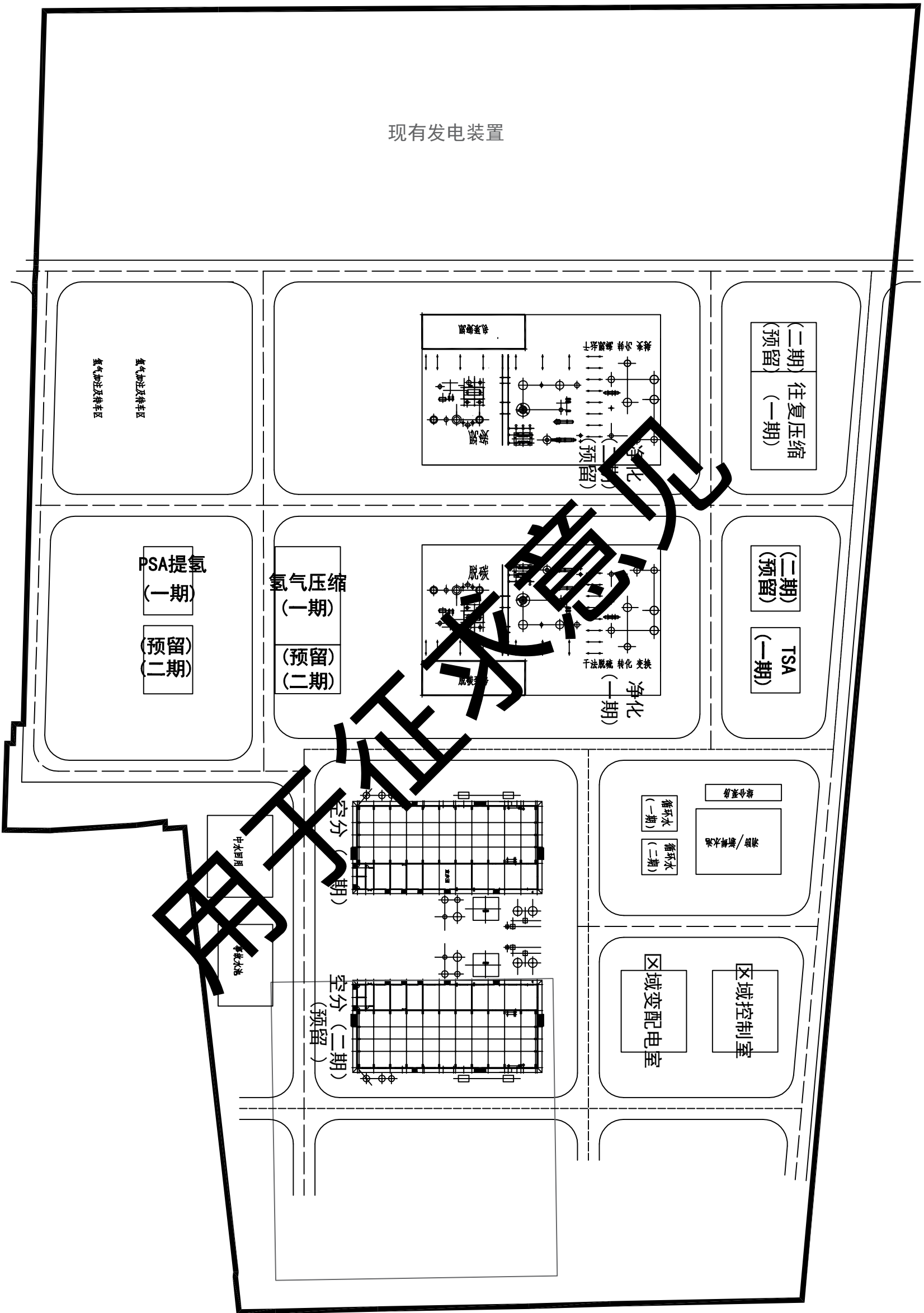
3.2.4 生产规模及产品方案

1.3644 Nm³/ GB/T 37244-2018

H ₂	≥99.97%
	≤300μmol/mol
	5μmol/mol
CH ₄ ^a	7μmol/mol
CO	0.2μmol/mol
CO ₂	2μmol/mol
O ₂	5μmol/mol
N ₂	100μmol/mol
Ar	300μmol/mol
He	0.004μmol/mol
H ₂ S	0.01μmol/mol
	0.2μmol/mol
NH ₃	0.1μmol/mol
	0.05μmol/mol
	1mg/kg
^a 2 μmol/mol	100 mol/ mol

MDEA PSA TSA

150



3.2-1

3.2.6 主要技术经济指标

3.2-5

1				
		Nm³/	1.2	
2				
		Nm³/	1.3644	
3		/	8000	
4				
1		Nm³/	1.2	
2		/	25	
3		/2	100	
4		/2	20	
5		m³/	1	MoO ₃
6		m³/1	4	MoO ₃
7		m³/2	18	MoO ₃
8		m³/	130	
9		m³/2	12	
10		m³/3	30	
11		m³/2	30	
12	PSA	m³/10	200	Al ₂ O ₃ SiO ₂
13	MDEA	t/a	3	N- MDEA
14		t/a	1.5	
15		t/a	5.0	
5				
1				
		m³/	264800	
2		Kwh/	6478.4	
8			100	
9			150	
10			35918	
11			34087.12	
12			24904.85	

13			16267.39	
14			6952.03	
15			1738.01	
16		%	14.72	
		%	22.22	
17		%	17.7	
			5.98	2
18			6.89	2
19				
		%	39.93	

3.2-5

1				
		Nm³/	1.2	
2				
		Nm³/	16.4	
3		/	100	
4				
1		Nm³/	1.2	
2		/	25	
3		/	100	
4		/2	120	
5		m³/	15	MoO ₃
6		m³/1	25	MoO ₃
7		m³/2	18	MoO ₃
8		m³/	130	
9		m³/2	12	
10		m³/3	30	
11		m³/2	30	
12	PSA	m³/10	200	Al ₂ O ₃ SiO ₂
13	MDEA	t/a	3	N- MDEA
14		t/a	1.5	
14		t/a	5.0	

5				
1				
		m ³ /	1.6	
		m ³ /	26.08	
2		Kwh/	6478.4	
8			100	
9			28611	
10			28045.53	
11			24904.85	
12			14554.23	
13			8662.73	
14			2165.68	
15		%	22.31	
16		%	31.07	
		%	21.29	
17			2	
			2	
18				
19		%	25.27	

3.3 工程分析

3.3.1 主要工艺技术方案

用于征求意见

MDEA PSA

0.5MPa G

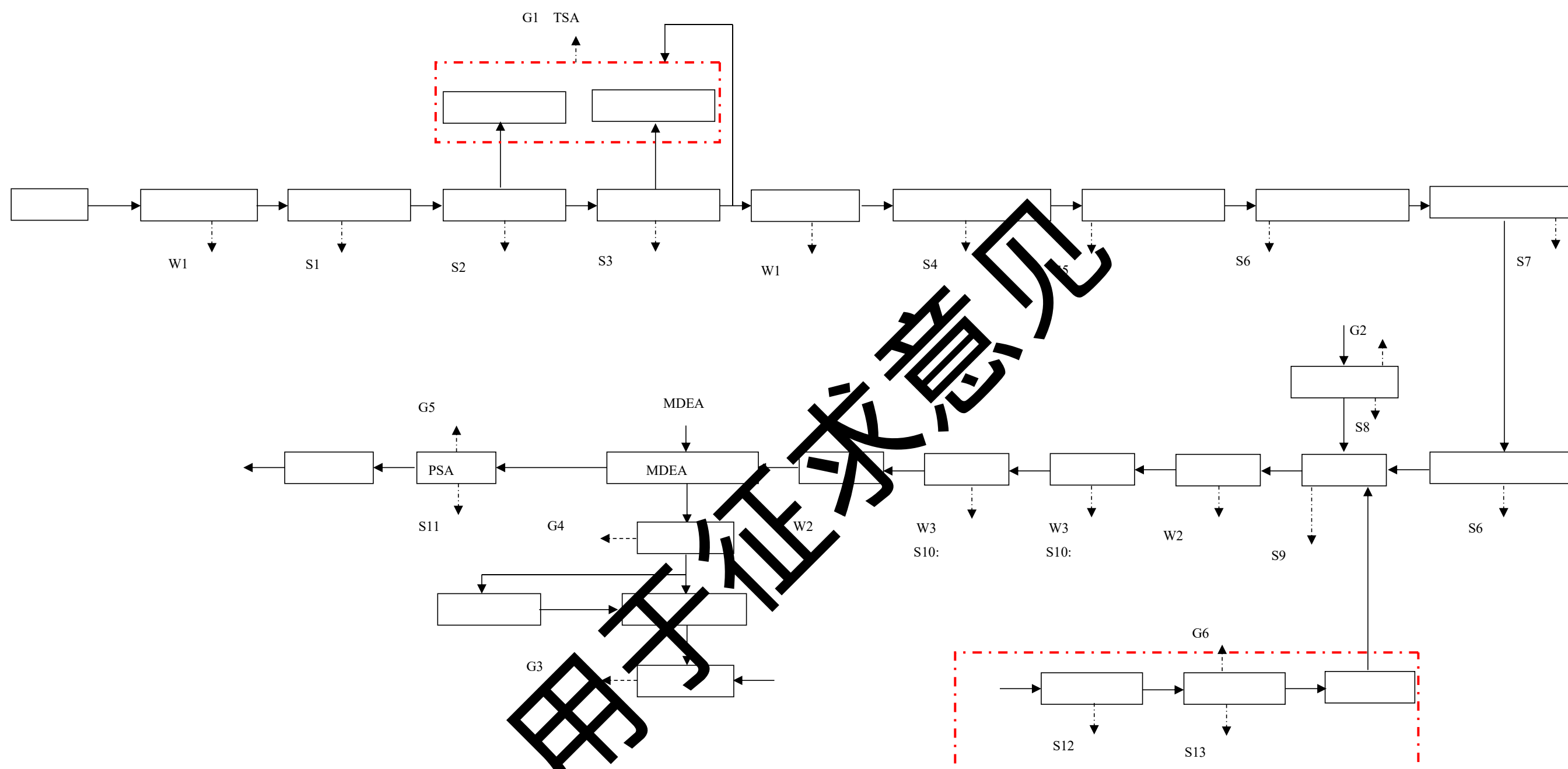
2.5MPa G

MDEA PSA
25MPa PSA

3.3-1			
1			2.0kPa 0.5MPa
2	TSA	TSA	
3		+ + +	0.1ppm
4		CH ₄ C ₂ H ₆ H ₂ CO	CH ₄ C ₂ H ₆ H ₂ CO
5			CO H ₂ CO ₂
5	MDEA	N-	CO ₂ 0.2%
6	PSA		
7		25MPa	25MPa

3.3.2 生产工艺流程介绍

用于征求意见



3.3.2.1 气柜

5000m³
2.0kPa 40

3.3.2.2 原料气压缩

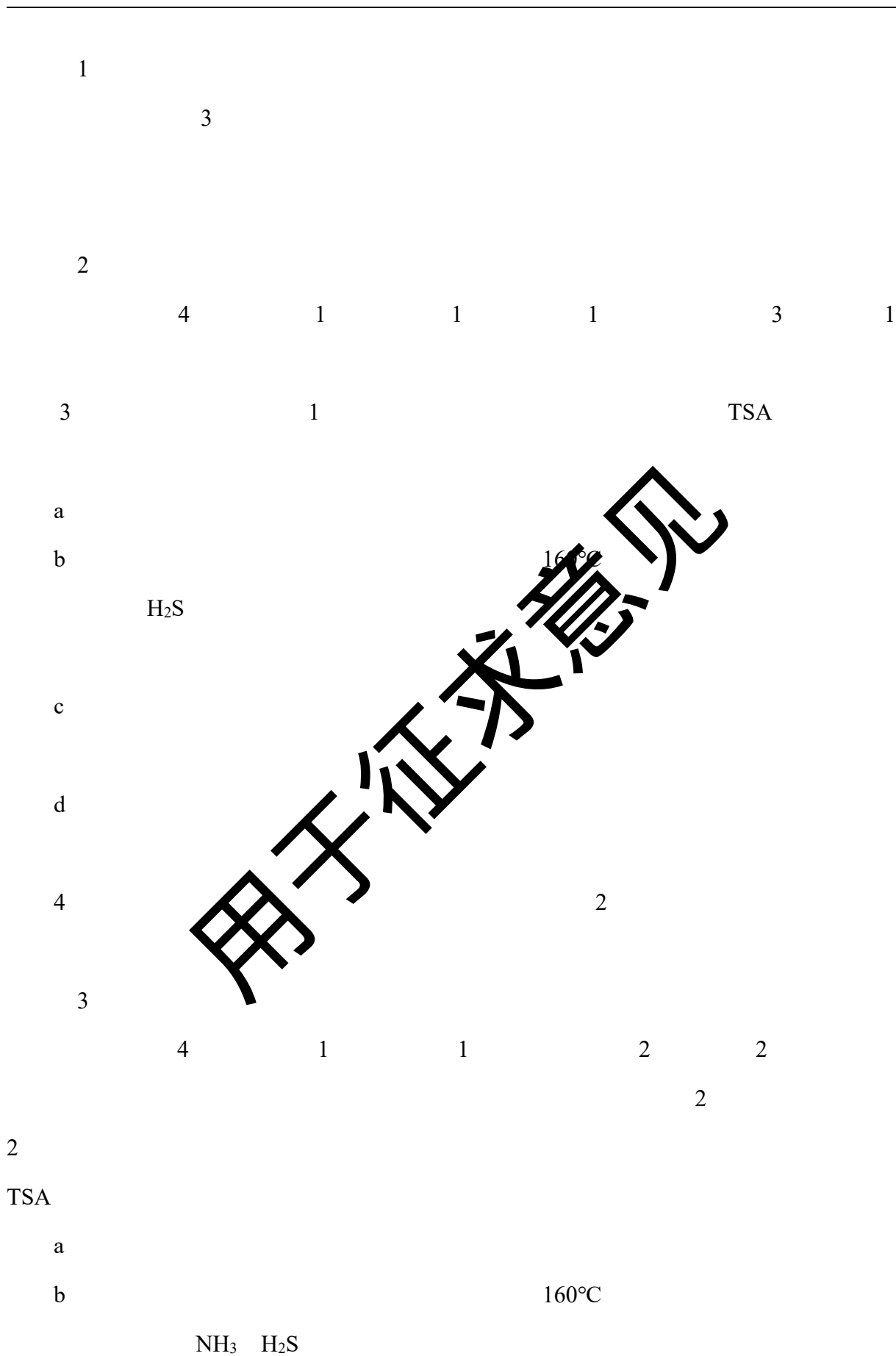
2 1 1
6M25-285/25

用于征求意见

TSA 0.5MPa G TSA
2.5MPa G
W1

3.3.2.3TSA 预净化

	1mg/Nm ³	1mg/Nm ³	10mg/Nm ³
TSA			
	DN2000	1	
	DN2200	4	
	DN2200	4	



c

d

4

2

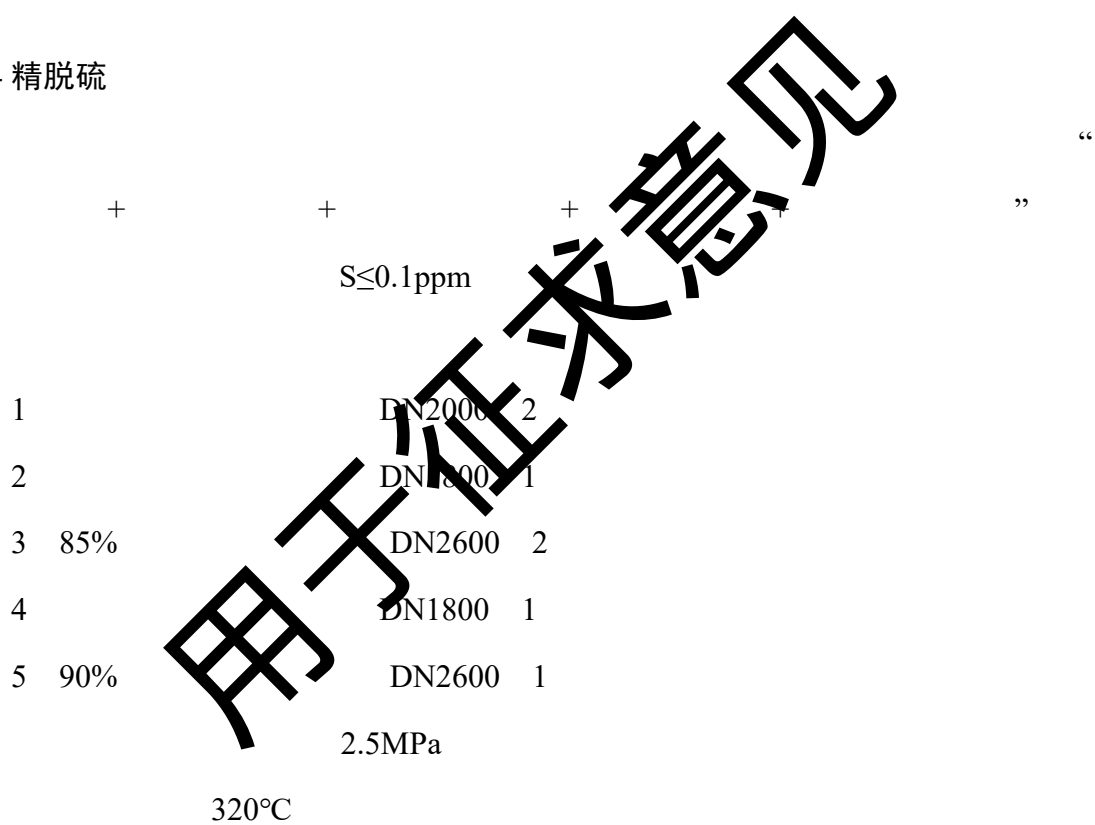
G1 TSA

S1

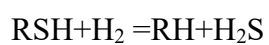
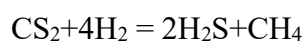
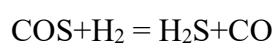
S2

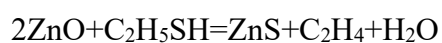
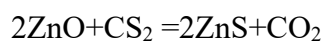
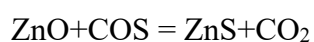
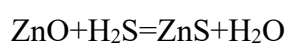
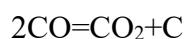
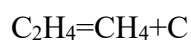
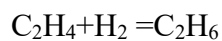
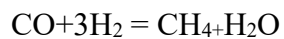
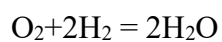
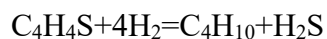
S3

3.3.2.4 精脱硫



0.1ppm





S4

S5

S6

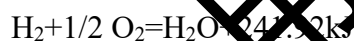
S7

3.3.2.5 纯氧转化

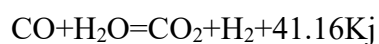
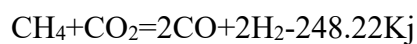
4.0MPa g 450°C

650°C

:



1200~1400°C



960°C

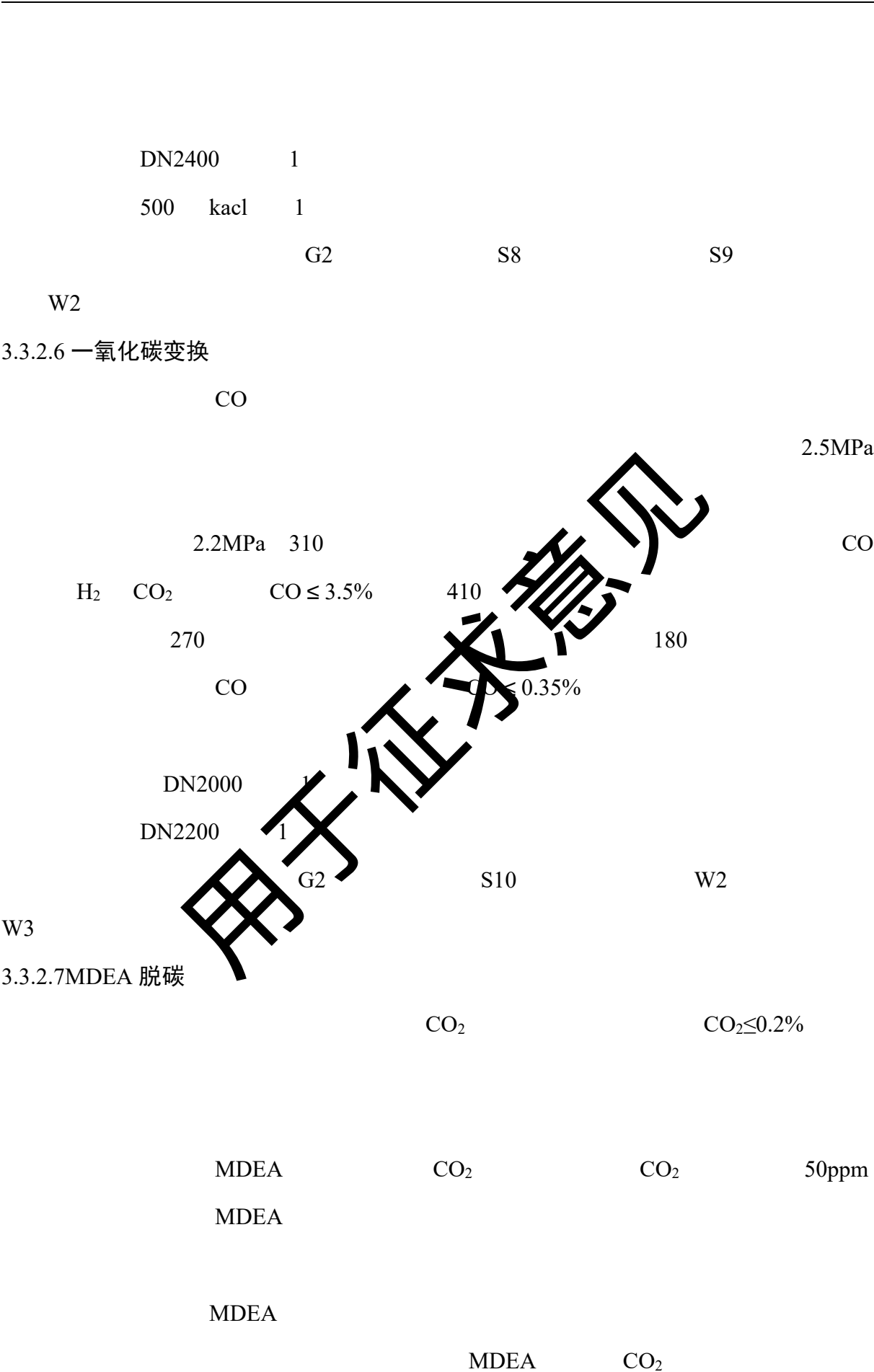
CH₄

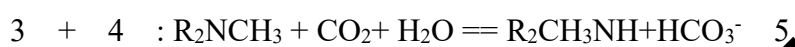
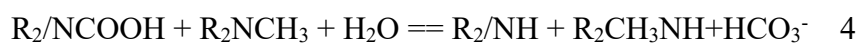
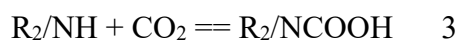
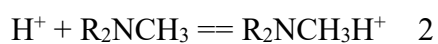
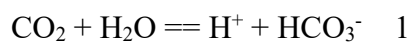
0.4%

310°C

4.0MPa

450°C





MDEA

MDEA

110°C-120°C

MDEA

3.0MPaG

40°C

40°C

60°C

70°C

DN2800

1

DN2800

2

Q=40m³/h

H=240m

2

Q=110m³/h

H=220m

2

G3

G4

3.3.2.8PSA 提氢

PSA

PSA+

PSA

PSA

PSA

PSA

PSA+

PSA

PSA

PSA-1

PSA

1

PSA

PSA

2

用于征求意见⁴

—

G5

S11

3.3.2.9 氢气压缩

25Mpa

3.3.2.10 空分制氧

1 3000Nm³/h

1

1

用于征求意见

2

3

4

用于征求意见

2

20m³/min

0.8 MPa

A

25m³/min

0.8MPa()

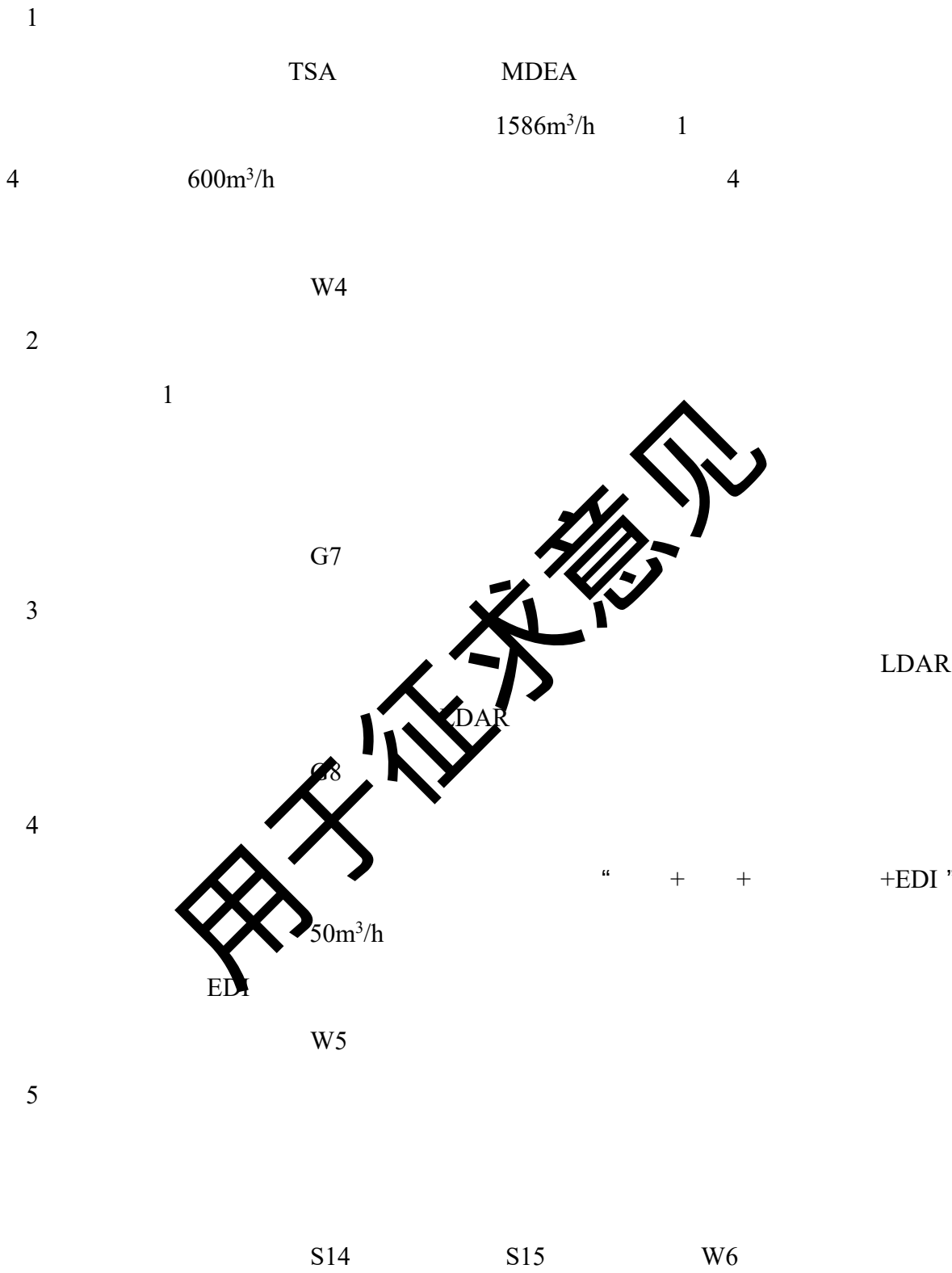
40

G6

S12

S13

3.3.2.12



3.3.3 主要生产设备

3.3-2

1			2	6 M25-285/25 17100Nm³/h
TSA				
1			1	DN2000
2			4	DN2200
3			4	DN2200
1			2	DN2000
2			1	DN1800
3			1	DN2000
4			1	DN1800
5			1	DN2600
1			1	DN2400
2			1	500 kcal
3			1	15.0t/h
1			1	DN2000
2			1	DN2200
3			1	3.5t/h
4			1	1.5t/h
1			1	DN2800
2			2	DN2800
3			2	Q=40m³/h H=240m
4			2	Q=110m³/h H=220m
1	PSA		12	DN1600
1			2	1 1
1			2	
1			1	-
2			1	-
3			2	-
4			1	-
5			1	-
6			2	-
7			2	-

1			4	600m³/h
2			4	Q=600m³/h H=40m
1			1	60m 50000Nm³

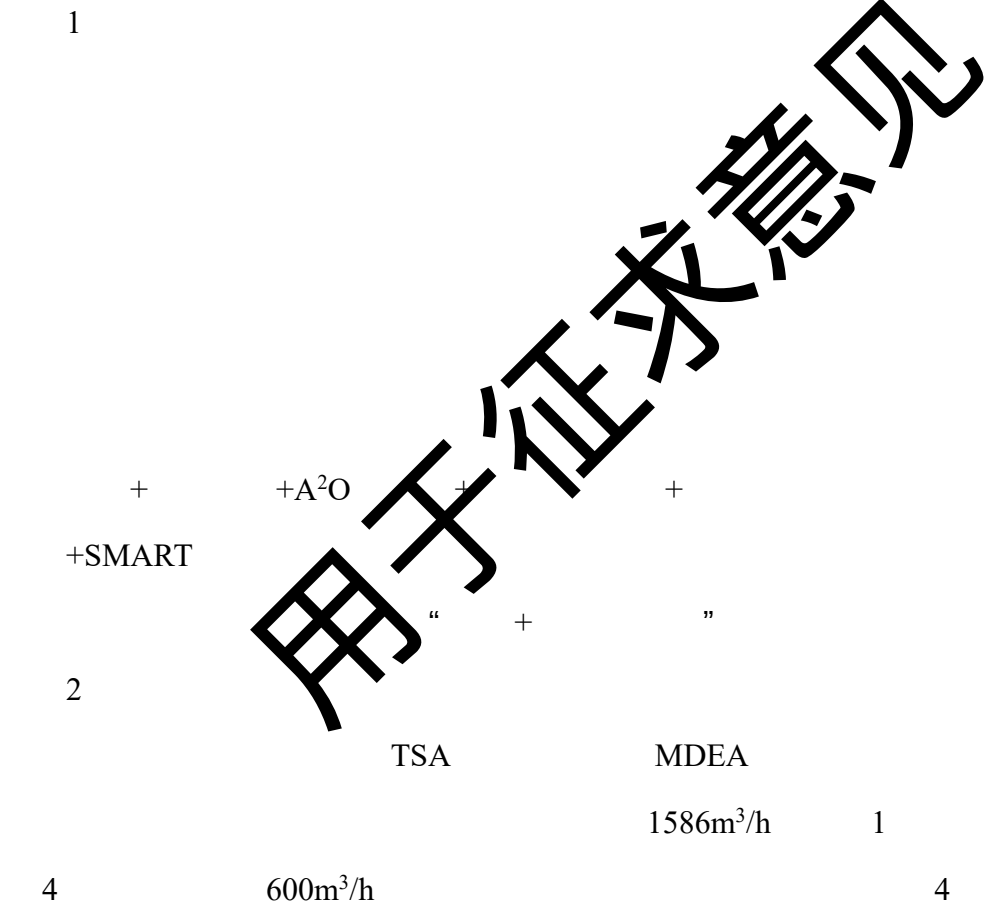
3.3-3

1			2	6 M25-285/25 17100Nm³/h
TSA				
1			1	DN2000
2			4	DN2200
3			4	DN2200
1			2	DN2000
2			1	DN1800
3			1	DN2000
4			1	DN1800
5			1	DN2600
1			1	DN2400
2			1	500 kcal
3			1	15.0t/h
1			1	DN2000
2			1	DN2200
3			1	3.5t/h
4			1	1.5t/h
MDEA				
1			1	DN2800
2			2	DN2800
3			2	Q=40m³/h H=240m
4			2	Q=110m³/h H=220m
1	PSA		12	DN1600
1			2	1 1
1			2	
1			1	-
2			1	-

3			2	-
4			1	-
5			1	-
6			2	-
7			2	-
1			4	600m³/h
2			4	Q=600m³/h H=40m
1			1	60m 50000Nm³

3.3.4 公辅工程

3.3.4.1 给排水



3.3-4

		m³/h
1		600
2	TSA	26
3		80
4	MDEA	350
5		200
6		330
		1586

3.3.4.3 热力除氧站

20t/h

3.3.4.4 供电

3.3.4.5 供热

2.5MPaG 4.5MPaG

TSA

MDEA

3.3.4.6 火炬

1

50000Nm³/h 40℃ 0.1MPa

3.3.4.7 脱盐水处理站

“ + + +EDI ”

50m³/h

EDI

3.3.5 储运工程

1

3.3-5

		t					°C		
			/	/m ³					
1		500	1	5000		S30408/S30408/Q345R		25MPa	~10

2

2

a. DN100; DN50

b. 25.0MPaG

3.3.6 依托工程

3.3.6.1 焦炉煤气

102300Nm³/h47300 Nm³/h33000Nm³/h

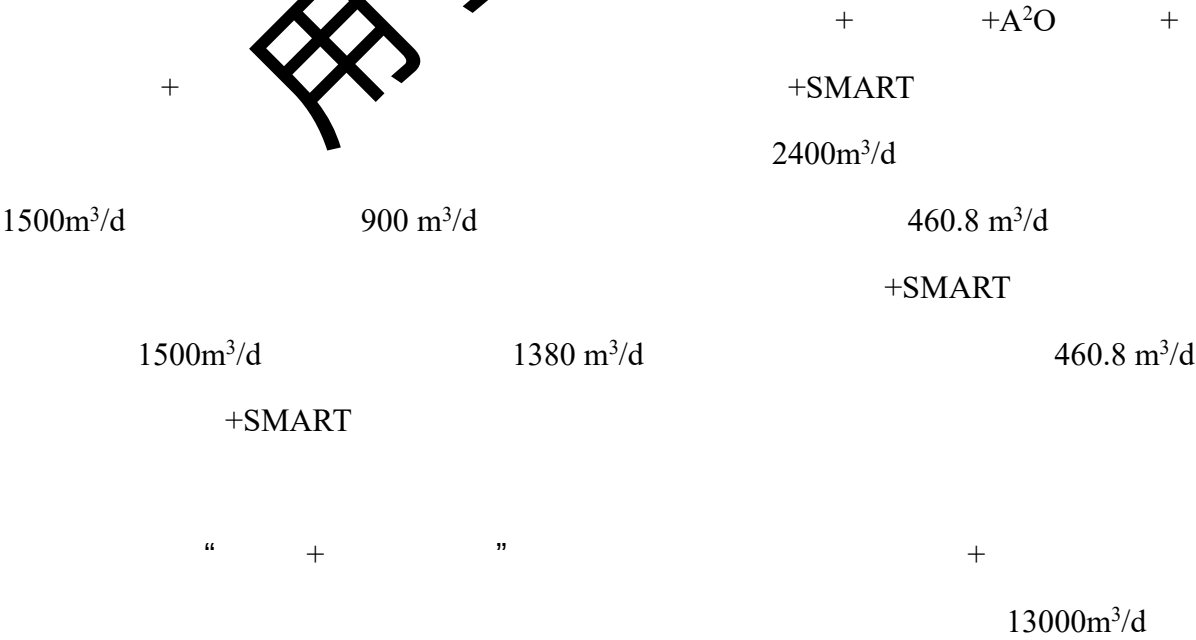
3.3-6

		1×180m ³ 1×1250m ³	2×90t	2×55	JN60-6
				2×65	JN60-6
		582920	40000		102300
		262300	5000		47300
		320620	35000		55000
	1×65m ²	10090	0		0
	120	2000	17800		0
	1×180m ²	6850	0		1200
	200	30000	8500		13000
		0	0		2000
		0	0		16000
		32000	0		1500
	45MW	0	0		5300
	40MW	86000	8700		2000
	2×25MW	153680	0		14000
		0	0		0
		320620	35000		55000

3.3-7

		1×1860m³ 1×1250m³	2×90t	2×55 JN60-6 2×65 JN60-6
		582920	40000	102300
		262300	5000	47300
		320620	35000	55000
	1×265m²	10090	0	0
	120	2000	17800	0
	1×180m²	6850	0	1200
	200	30000	8500	13000
		0	0	2000
		85000	0	0
		32000	0	1500
	45MW	68680	0	5300
	40MW	86000	0	2000
	2×25MW	0	0	0
		0	0	30000
		320620	35000	55000

3.3.6.2 水处理依托



7000m³/d

499.2m³/d

3.3.7 主要原辅材料供应情况

1

CO CO₂ H₂ CH₄

3.3-8

	H ₂	CO	CO ₂	CH ₄	N ₂	C ₂ H ₄	O ₂
V%	62.8	6.29	3.56	21.26	4.13	1.51	0.44
				H ₂ S	CO ₂	CS ₂	
mg/Nm ³	50	150	4000	50	50	150	5

3000Nm³/h

2

3.3-9

1		25	/	
2		100	/2	
3		125	/2	
4		40	m³/	
5		300	m³/	
6		220	m³/	
7		75	m³/	
8		1440	m³/	
9		12	m³/2	
10		30	m³/3	
11		30	m³/2	
12	MDEA	3	/	
13	PSA	200	m³/10	
14		3.0	/	

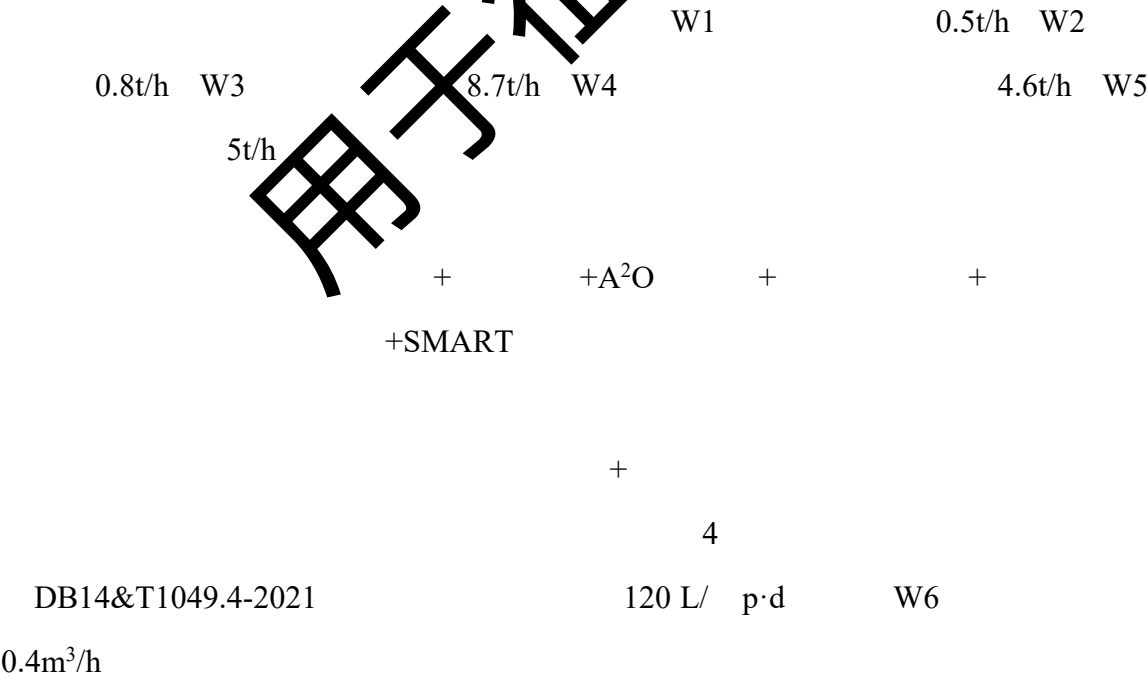
3.3-10

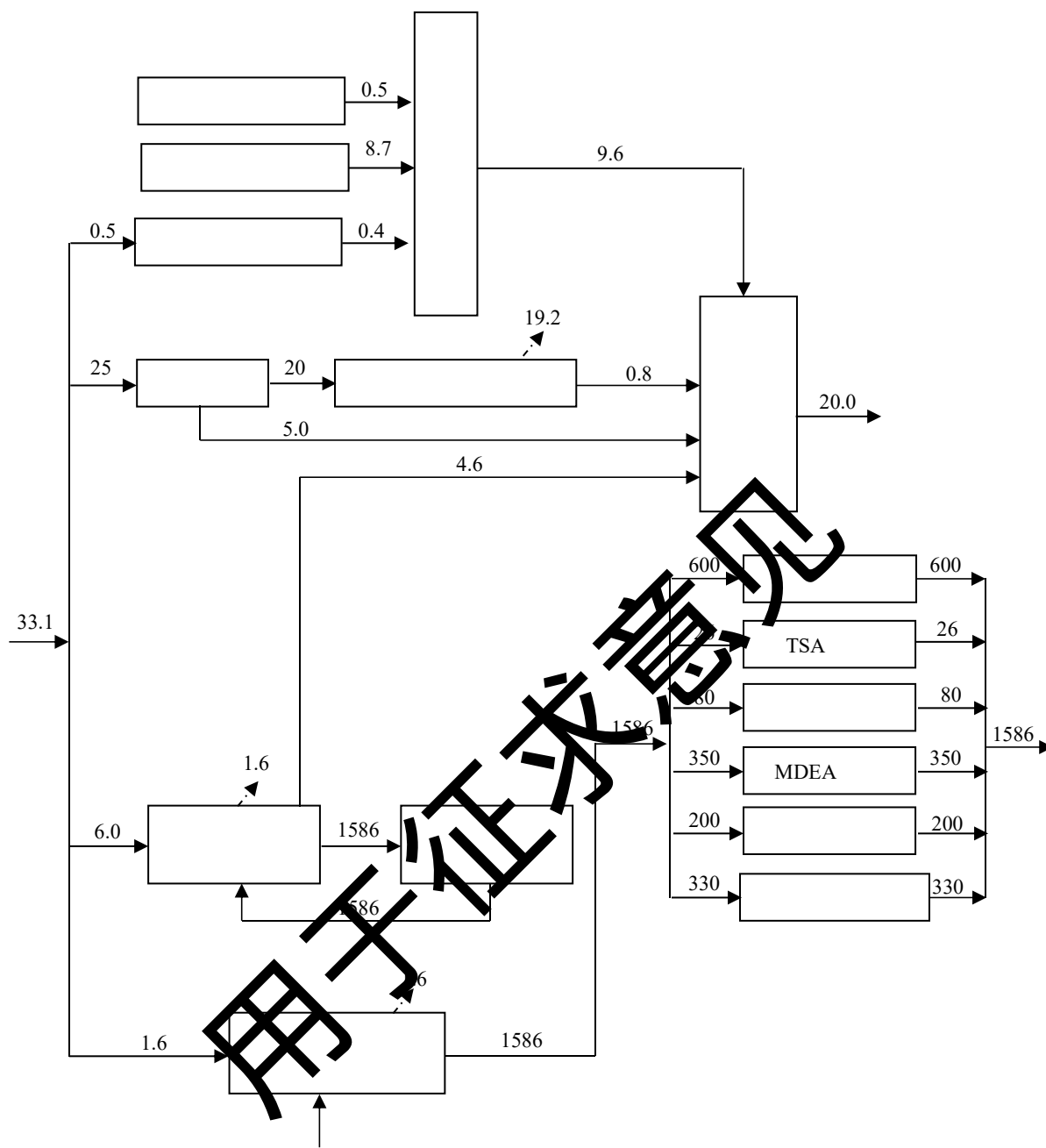
1		25	/	
2		100	/2	
3		125	/2	
4		40	m³/	
5		300	m³/	
6		220	m³/	
7		75	m³/	
8		1440	m³/	
9		12	m³/2	
10		30	m³/3	
11		30	m³/2	
12	MDEA	3	/	
13	PSA	200	m³/h	
14		3.0		

3.3.8 平衡分析

3.3.8.1 煤气平衡

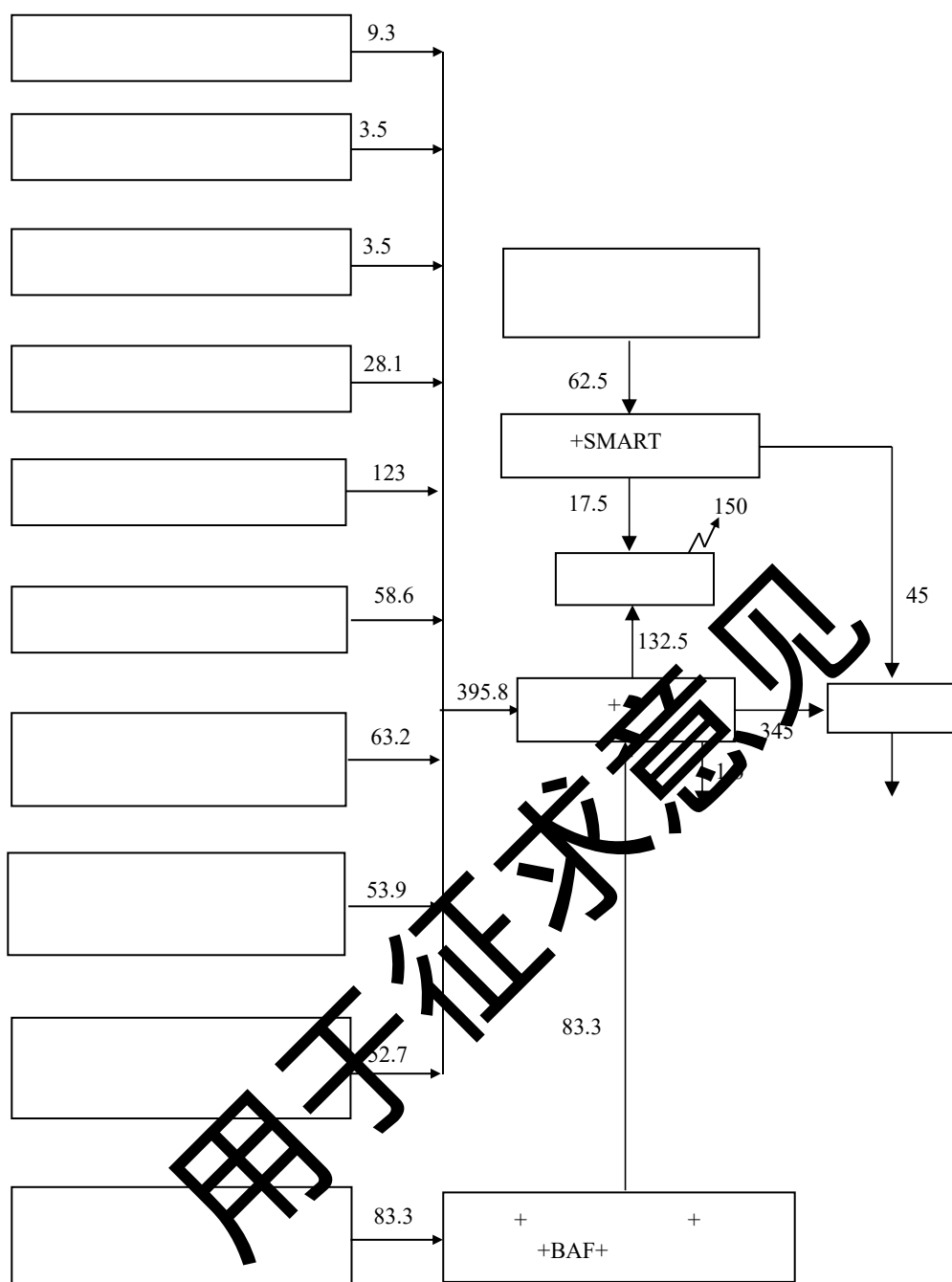
3.3.8.2 水平衡





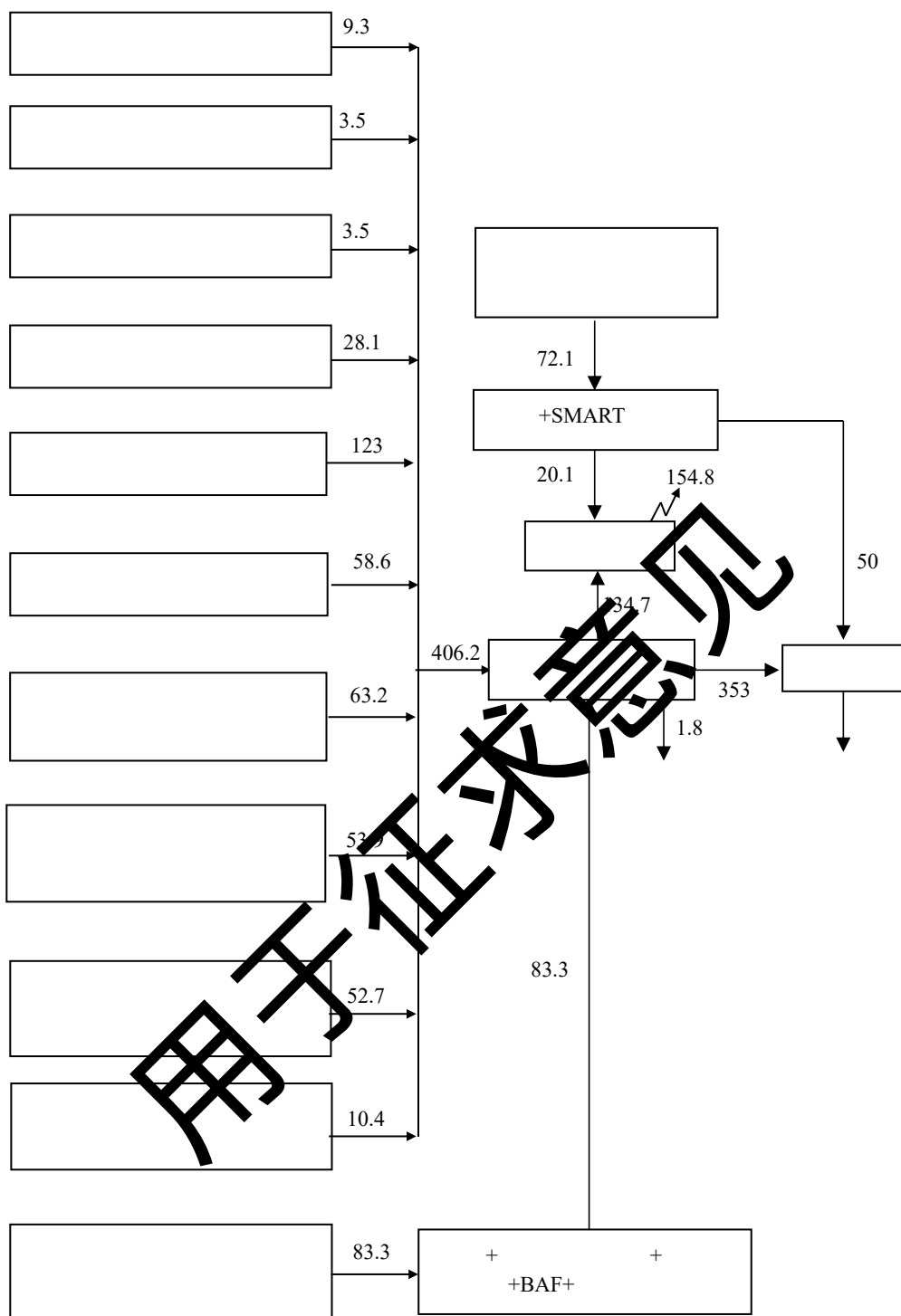
3.3-1

m³/h



3.3-2

m³/h



3.3-3

m³/h

3.3.8.3 物料平衡

3.3.8.4 蒸汽平衡

2.5MPaG

4.5MPaG

23t/h

4t/h

3.3-12			t/h		
	2.5MPa 225°C	4.5MPa 450°C		2.5MPa 225°C	4.5MPa 170°C
	-	15	TSA	0.6	-
	3.5	-		1.5	-
	1.5	-	MDEA	0.6	-
-	-	-		-	14.3
-	-	-		2	-
-	-	-		1.1	-
-	-	-		0.2	0.7
	5.0	15		5.0	15

3.3-11																	
														CO2	PSA	PSA	
Temperature	C	40	40. 00	350	314. 00	650. 00	40. 00	962. 22	350	222.76	40	40	40	40. 00	40. 00	40. 00	40. 00
Pressure	bar	1. 03	25. 00	23. 80	30. 00	22. 30	30. 00	21.9	21. 60	20. 30	18.9	18.9	18.6	1.5	18. 60	1.5	260. 00
Molar vapor phase fraction		1. 00	1. 00	1. 00	1. 00	1. 00	1. 00	1	1. 00	1. 00	0. 00	1. 00	1	1. 00	1. 00	1. 00	1. 00
Average MW		9. 73	9. 75	9. 94	18. 02	13. 48	31.98	13. 32	13. 32	13. 32	18. 02	11.23	3.05	43.54	2. 02	9. 52	2. 02
Mass Density	kg/cum	0. 38	9. 27	4. 53	11.88	3. 90	37. 26	2.83	5. 55	6. 57	979. 41	8. 10	2. 16	2. 52	1. 42	0. 55	17. 49
Mass Flows	kg/hr	6514. 09	6544. 14	6544. 14	9239. 53	15783.67	3495.95	21279. 62	21279.62	21279. 62	8852. 77	12426. 85	2695. 07	9731.78	1534.81	1160. 26	1534.81
Mole Flows	kmol/hr	669. 65	671.32	658.18	512. 87	1171.05	109. 31	1598.15	1598. 15	1598. 15	491.34	1106.81	883. 28	223.53	761. 36	121.92	761. 36
H ₂	kmol/hr	420. 58	420. 58	404.45	0. 00	404. 45	0. 00	709.77	709. 77	846.67	0. 00	846.67	845. 96	0. 71	761. 36	84. 60	761. 36
CO	kmol/hr	42. 13	42. 13	42. 08	0. 00	42. 08	0. 00	140.21	140.21	3. 31	0. 00	3. 31	3. 31	0. 00	0. 00	3. 31	0. 00
CO ₂	kmol/hr	23.84	23. 84	23. 84	0. 00	23. 84	0. 00	83. 54	83. 54	220. 44	0. 00	220.4	0. 50	219. 90	0. 00	0. 50	0. 00
N ₂	kmol/hr	27.66	27. 66	27. 66	0. 00	27. 66	0. 44	28. 10	28. 10	8. 10	0. 00	28. 10	28.09	0.01	0. 00	28. 09	0. 00
O ₂	kmol/hr	2. 95	2. 95	0. 00	0. 00	0. 00	108. 87	0	0. 00	3. 05	0. 00	0. 00	0. 00	0. 00	0. 00	0. 00	0. 00
CH ₄	kmol/hr	142.38	142. 38	142. 42	0. 00	142.42	0. 00	4. 82	4. 82	4. 82	0. 00	4. 82	4. 82	0	0. 00	4. 82	0. 00
C ₂ H ₄	kmol/hr	10. 11	10. 11	0. 00	0. 00	0. 00	0. 00	0	0. 00	0. 00	0. 00	0. 00	0. 00	0. 00	0. 00	0. 00	0. 00
C ₂ H ₆	kmol/hr	0. 00	0. 00	10. 11	0. 00	10. 11	0. 00	0	0. 00	0. 00	0. 00	0. 00	0. 00	0	0. 00	0. 00	0. 00
H ₂ O	kmol/hr	0. 00	1. 67	7. 61	512. 87	520. 48	0. 00	631. 71	631. 71	494. 81	491. 30	3. 51	0. 60	2. 92	0. 00	0. 60	0. 00
Mole Fractions																	
H ₂		62. 81%	62. 65%	61. 45%	0. 00%	34. 54%	0. 00%	4. 41%	4. 41%	52. 98%	0. 00%	76. 50%	95. 77%	0. 32%	100. 00%	69. 39%	100. 00%
CO		6. 29%	6.27%	6. 39%	0. 00%	3. 59%	0. 00%	8. 77%	8. 77%	0. 21%	0. 00%	0. 30%	0. 37%	0.00%	0. 00%	2. 71%	0. 00%
CO ₂		3. 56%	3. 55%	3.62%	0. 00%	2.04%	0. 00%	5. 23%	5. 23%	13. 79%	0. 01%	19. 91%	0. 06%	98. 37%	0. 00%	0.41%	0. 00%
N ₂		4. 13%	4. 12%	4. 20%	0. 00%	2. 36%	0. 40%	1. 76%	1. 76%	1. 76%	0. 00%	2. 54%	3. 18%	0.00%	0. 00%	23. 04%	0. 00%
O ₂		0. 44%	0. 44%	0. 00%	0. 00%	0. 00%	99.60%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0.00%	0. 00%
CH ₄		21. 26%	21. 21%	21. 64%	0. 00%	12. 16%	0. 00%	0. 30%	0. 30%	0. 30%	0. 00%	0. 44%	0. 55%	0. 00%	0. 00%	3. 96%	0. 00%
C ₂ H ₄		1. 51%	1. 51%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0.00%	0. 00%	0.00%	0. 00%
C ₂ H ₆		0. 00%	0. 00%	1. 54%	0. 00%	0. 86%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0. 00%	0.00%	0. 00%	0.00%	0. 00%
H ₂ O		0. 00%	0.25%	1. 16%	100.00%	45. 00%	0. 00%	39. 53%	39. 53%	30. 96%	99. 99%	0. 32%	0. 07%	1. 30%	0. 00%	0.49%	0. 00%

3.4 项目施工期环境影响因素及污染防治措施

3.4.1 施工期环境影响因素

3.4.2 施工期污染防治措施

1

100%

“6”

100%

100%

100%

100%

100%

100%

“

”“

”“

”

2.5m

2

3

用于征求意见

10:00

6:00

4

3.5.1 废气污染排放分析

3.5.1.1 废气污染源源项及污染防治措施

3-63

MDEA

$$\text{H}_2 \quad \text{CO} \quad \text{CO}_2 \quad \text{CH}_4 \quad \text{N}_2 \quad \text{C}_n\text{H}_m$$
200Nm³/h

4 PSA

PSA

$$\text{H}_2 \quad \text{N}_2 \quad \text{CH}_4 \quad \text{CO} \quad \text{CO}_2$$
2830Nm³/h

5

$$\text{N}_2$$

6

LDAR

LDAR

7

NO_x

3.5.1.2 废气污染源强核算

1

2

< VOCs >

 $\angle$
$$>$$

[2015]104

2

15.822t/a

2

1

VOCs

15.822t/a

3.5-1 VOCs

	t/a
	0.8
	0.003
VOCs	0.009
VOCs	14.5
	0.51
	15.822

用于征求意见

3.5-2

			Nm³/h	mg/Nm³	kg/h			Nm³/h	mg/Nm³	kg/h	h/a	t/a	/m	/m	/°C	
	NO _x		10000	200	2.0	+SCR ≥75%		10000	50	0.5	8000	4.0	15	0.7	200	
	NH ₃		10000	-	-	-		10000	2.5	0.025	8000	0.2	15	0.7	200	
	NO _x		10000	200	2.0	+SCR ≥75%		10000	50	0.5	8000	4.0	15	0.7	200	
	NH ₃		10000	-	-	-		10000	2.5	0.025	8000	0.2	15	0.7	200	
	NO _x		500	150	0.75			500	150	0.75	8000	0.6	60	1.0	200	
	VOCs		-	-	-	LDAR		-	-	1.98	8000	15.822	-	-	-	
VOCs																

3.5.2 废水污染物排放分析

3.5.2.1 废水污染源及污染物分析

		W1	0.5t/h	W2	0.8t/h	W3	
	8.7t/h	W4		4.6t/h	W5		5t/h
W6		0.4t/h					
1		W1		COD _{cr}	BOD		
NH ₃ -N	SS						
2		W2		COD			
3		W3		COD			
4			W4		COD		
5			W5		COD		
6		W6		pH	BOD	SS	TP TN

3.5-3

	m³/h	mg/L													
		pH	SS	COD		BOD ₅							TP	TN	
	0.5	8~9	200	3000	50	10	20	5	2	1	0.8	-	-	-	
	0.8	8~10	50~150	80~120	-	-	-	-	-	-	-	~3000	-	-	
	8.7	-		120	30	-	-	-	-	-	-	-	-	-	
	4.6	8~10	50~150	80~120	-	-	-	-	-	-	-	~3000	-	-	
	5.0	-	-	80~120	-	-	-	-	-	-	-	~3000	-	-	
	0.4	6.5~8.5	100~200	150~400	20~40	100~200	-	-	-	-	-	-	2.0~7.0	20~50	

3.5-4

	m³/h	mg/L													
		pH	SS	COD		BOD ₅							TP	TN	
	0.5	8~9	200	3000	50	10	20	5	2	1	0.8	-	-	-	
	0.8	8~10	50~150	80~120	-	-	-	-	-	-	-	~3000	-	-	
	8.7	-		120	30	-	-	-	-	-	-	-	-	-	
	4.6	8~10	50~150	80~120	-	-	-	-	-	-	-	~3000	-	-	

	5.0	-	-	80~120	-	-	-	-	-	-	-	~3000	-	-	
	0.4	6.5~8.5	100~200	150~400	20~40	100~200	-	-	-	-	-	-	2.0~7.0	20~50	

用于征求意见

3.5.2.2 废水污染防治对策

+ +A²O +
+ +SMART
“ +
”

3.5.2.3 事故废水及初期雨水收集

用于征求意见

[2006] 43

GB50160-2008 2018

$$V=V_1+V_2-V_3_{\max}+V_4+V_5$$

$$V—\quad\quad\quad\text{m}^3$$

$$V_1—\quad\quad\quad\text{m}^3$$

$$V_2—\quad\quad\quad\text{m}^3$$

$$V_3—\quad\quad\quad\text{m}^3$$

V_4 — m^3
 V_5 — m^3
 $V_1+V_2-V_3$ max $V_1+V_2-V_3$

V_1
 $100m^3$
 V_2 GB50160-2008 2018
150 1
270L/s 1h

$972m^3$ $V_2=972m^3$
 V_3
 $150m^3$ $V_3=150m^3$

V_4
 $20m^3/h$ $V_4=20m^3$
 V_5
 $V_5=1006m^3$

$V=$ $V_1+V_2-V_3$ max $V_4+V_5=100+972-150+20+1006=1948m^3$
 $2000m^3$

GB/T50483-2019 20mm
 $50300m^2$

$1006m^3$ $1100m^3$

3.5.3 固体废物产生及治理措施

50m²

3.5-5

		HW49 900-041-49		25	
		HW49 900-041-49		50	
		HW49 900-041-49		62	
			MoO ₃	30	
			MoO ₃	25	
		HW46 900-037-46	MoO ₃	9.0	
		HW49 900-041-49	ZnO ZnS	130	
		HW46 900-037-46		6.0	
				10	
				15	
PSA				20	

				1.5	
				5.0	
		HW08 900-219-08		2.0	
		-		17.0	

3.5-6

		HW49 900-041-49		25	
		HW49 900-041-49		50	
		HW49 900-041-49		62	
			MoO ₃	30	
			MoO ₃	25	
		HW46 900-037-46	MoO ₃	9.0	
		HW49 900-041-49	ZnO ZnS	130	
		HW46 900-037-46		6.0	
				10	
				15	
PSA				20	
				1.5	
				5.0	
		HW08 900-219-08		2.0	
		-		17.0	

3.5.4 噪声排放及治理措施

75 100dB A

3.5-7

		/	dB A		dB A
1		2	95		75

2		3	105		75
3		1	85		75
4		1	95		75
5		2	85		75
6		2	85		75
7		2	85		75
8		1	95		75
9		1	95		75
10		4	90		75
11		4	85		75
12		2	95		75

3.5-8

		/	dB A		dB A
1		2	95		75
2		3	105		75
3		1	95		75
4		1	95		75
5		2	85		75
6		2	85		75
7		2	85		75
8		1	95		75
9		1	95		75
10		4	90		75
11		4	85		75
12		2	95		75

3.5.5 土壤污染防治措施

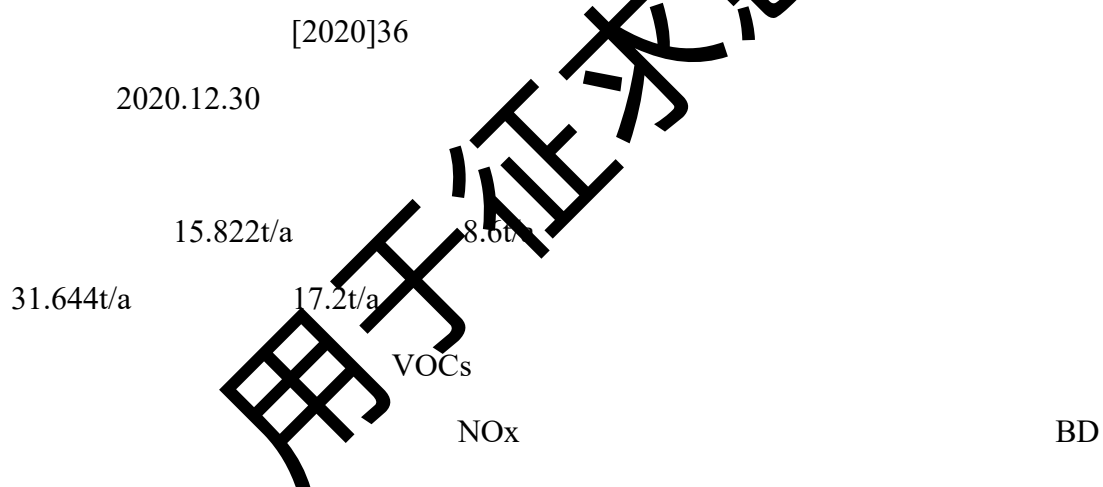
1

2

3

4

3.6 区域削减方案



3.6-1

t/a)

		VOCs	NO _x
		15.822	8.6
		31.644	17.2
			BD
		31.644	17.2

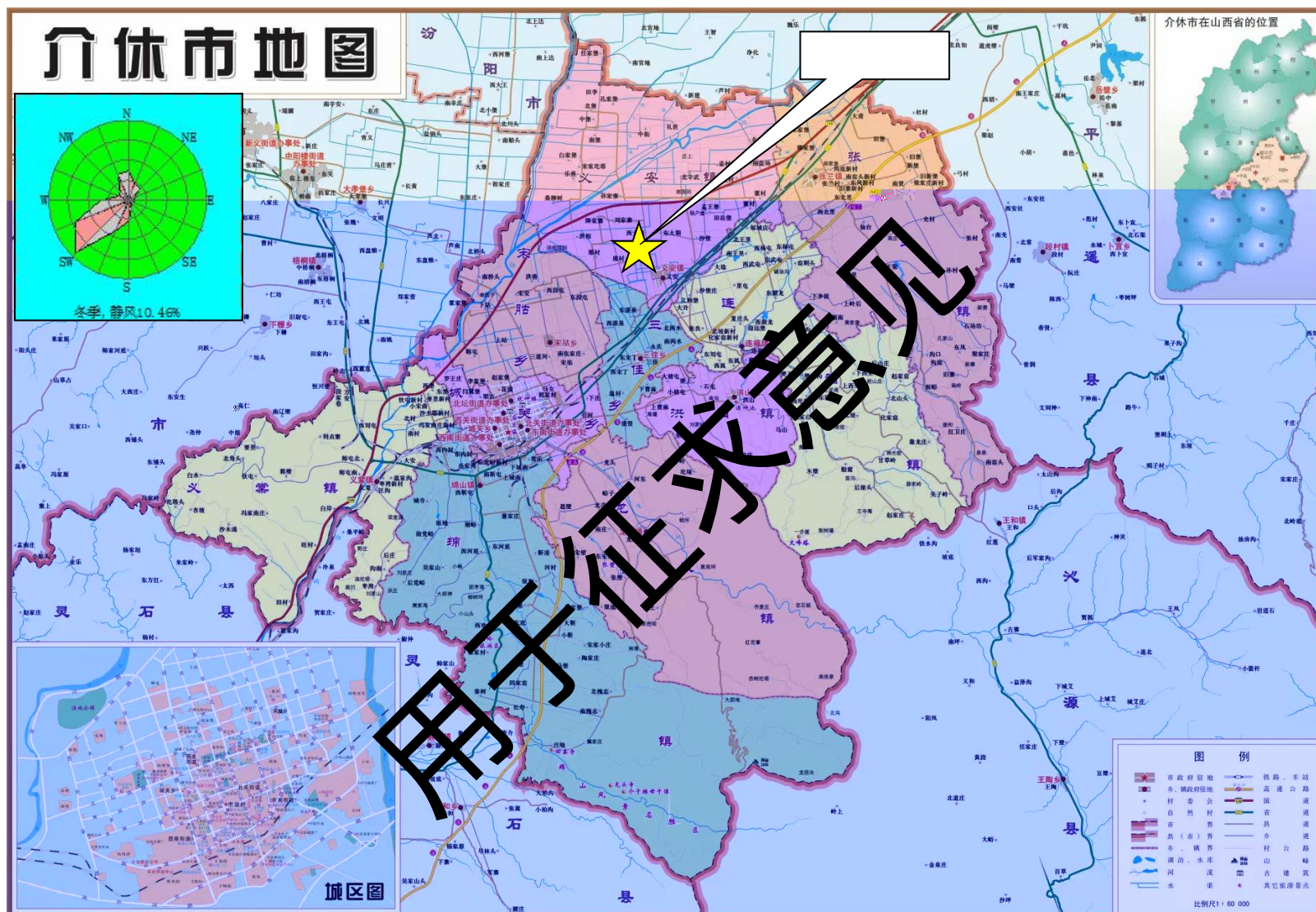
4

4.1

4.1.1

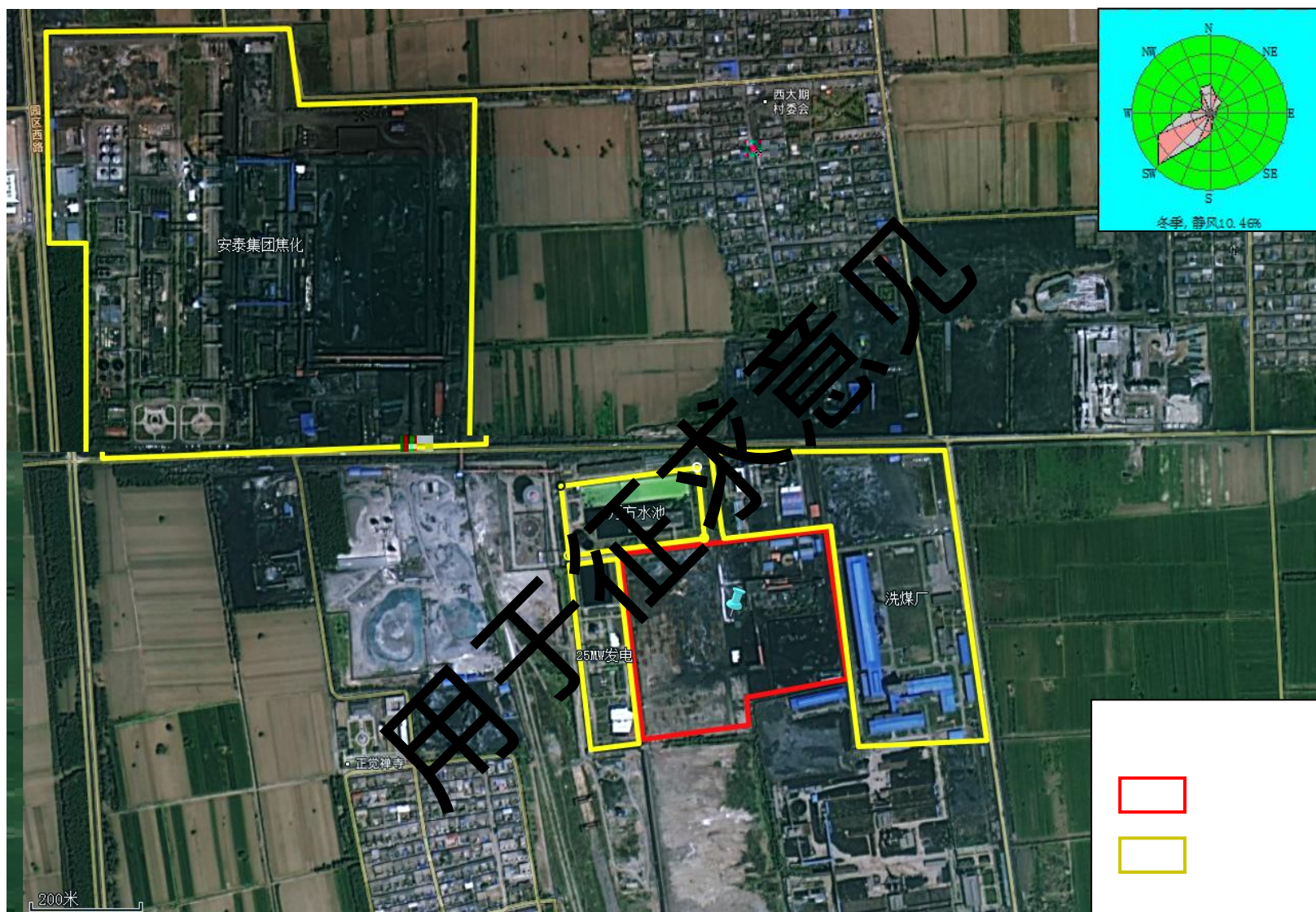
		111°44'10"	112°10'14"	36°50'01"
37°11'04"	38.5	38	743.2	
		0.25km		
4.1-1	4.1-2			

用于征求意见



4.1-1

4-2



4.1-2

4.1.2

20 2001-2020
11.8 40.6 -21.9
2.1m/s 23.8m/s SW 14.2%
57.8% 475.7mm 82.9mm 2008.3

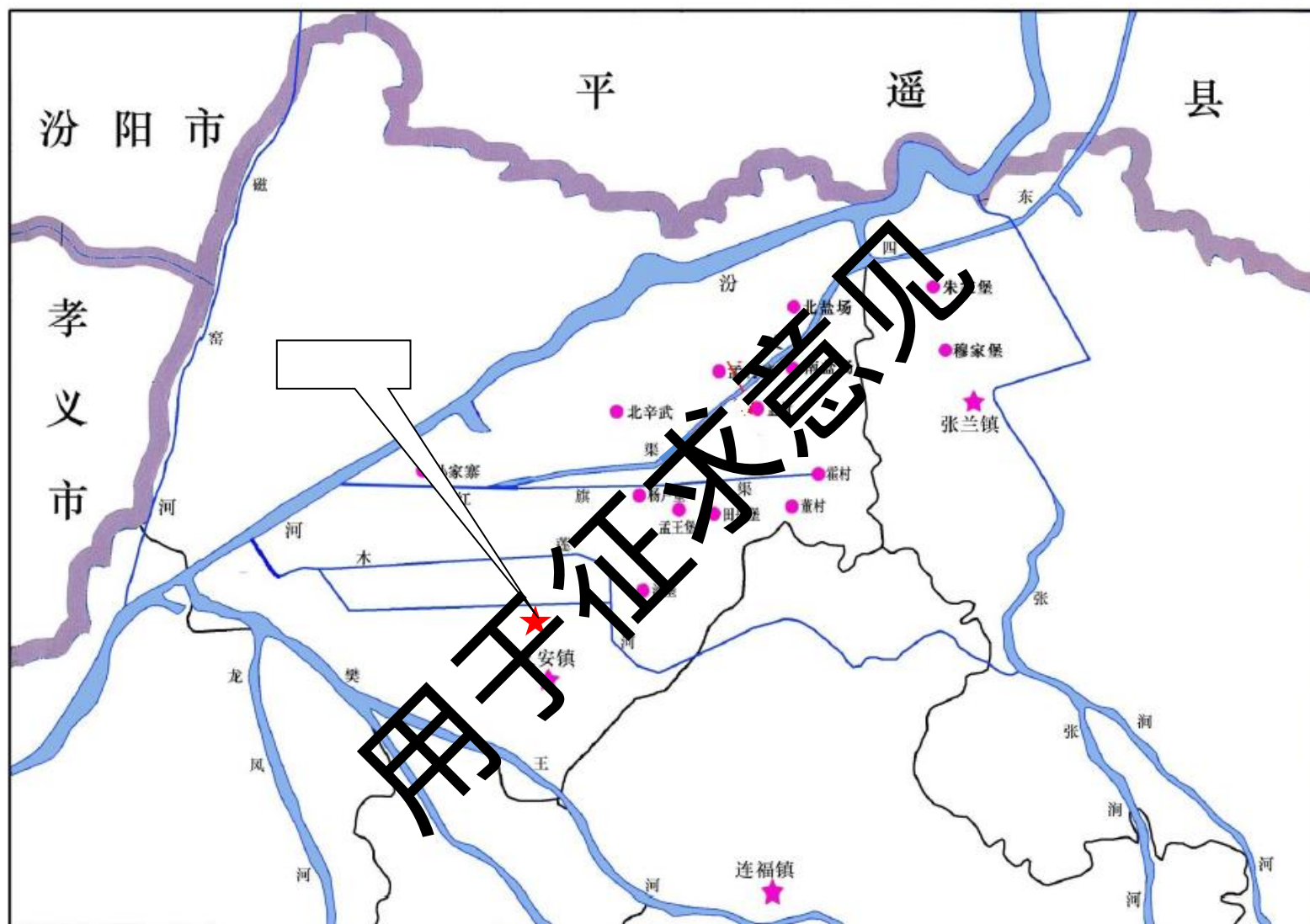
4.1.3

27.945km² 33
12.06 / 1954 37.78
/ 1994 8.37 16.2
1.25 5090 5.3km
15km
52km

	23.1km	93.7 km ²
		23
53	29	60

	17.5km	67.90km ²
	1.5m	4.1-3

用于征求意见



4.1-3

4.2

4.2.1

1.

1993 1 20
111°56'~112°8' 36°49'~37°1'
20.5km 12.5km 17827hm² 20km
2566.6m 17827

3717.3hm² 5805.3hm² 32.6%
20.9%
46.5% 8304.2hm²
2. 54.1km² 35.48km²
65.6% 42.7% 2.6km²
5% 7%

10.5hm² 150m
40hm²
2487m
54.1km²

36.77km²

10.19km

4.2.2

1



”		100-1000t/d		180-210m		1#
E111°59′1.7″	N37°04′53.9″	180m	5			37.5m
				67m	2# 3#	120m
210m	2#	E111°59′4.9″ N37°04′42.1″		3#	E111°59′9.5″	
N37°04′40.9″		45m				

1.66km

4.2-1

用于征求意见



4.2-1

4.3

4.3.1

4.3.1.1

4.3-1

4.3-1

			μg/m³	μg/m³	%	
	SO ₂		12	60	20.0	
	NO ₂		31	40	77.5	
	PM ₁₀		80	70	114.3	
	PM _{2.5}		46	35	131.4	
	O ₃	O ₃ 8 90	175	160	109.4	
	CO	24 95	1.2mg/m ³	4mg/m ³	30.0	

2022 SO₂ NO₂ PM₁₀ PM_{2.5} 12μg/m³ 31μg/m³
80μg/m³ 46μg/m³ CO24 95 1.2mg/m³ O₃ 8
90 175μg/m³ GB3095-2012
PM₁₀ PM_{2.5} O₃

4.3.1.2

1

4.3-2

4.3-2

		μg/m³	μg/m³	%	
SO ₂		60	35	58.3	
NO ₂		40	39	97.5	
PM ₁₀		70	97	138.6	
PM _{2.5}		35	45	128.6	
O ₃	O ₃ 8 90	160	184	115.0	
CO	24 95	4mg/m ³	1.8mg/m ³	45.0	

4.3-2 2022 SO₂ NO₂ CO PM₁₀ PM_{2.5}
O₃

				1	2000	720~1020	51.0	0	
--	--	--	--	---	------	----------	------	---	--

4.3.2

2023 2 24

4.3-6

4.3-3

1#

49.2dB A

47.0dB A

GB3096- 2008

3

1

4.3-5

4.3-1

4.3-5					
1			A		1
		L_{10}	L_{50}	L_{90}	L_{eq}
1					

2

A

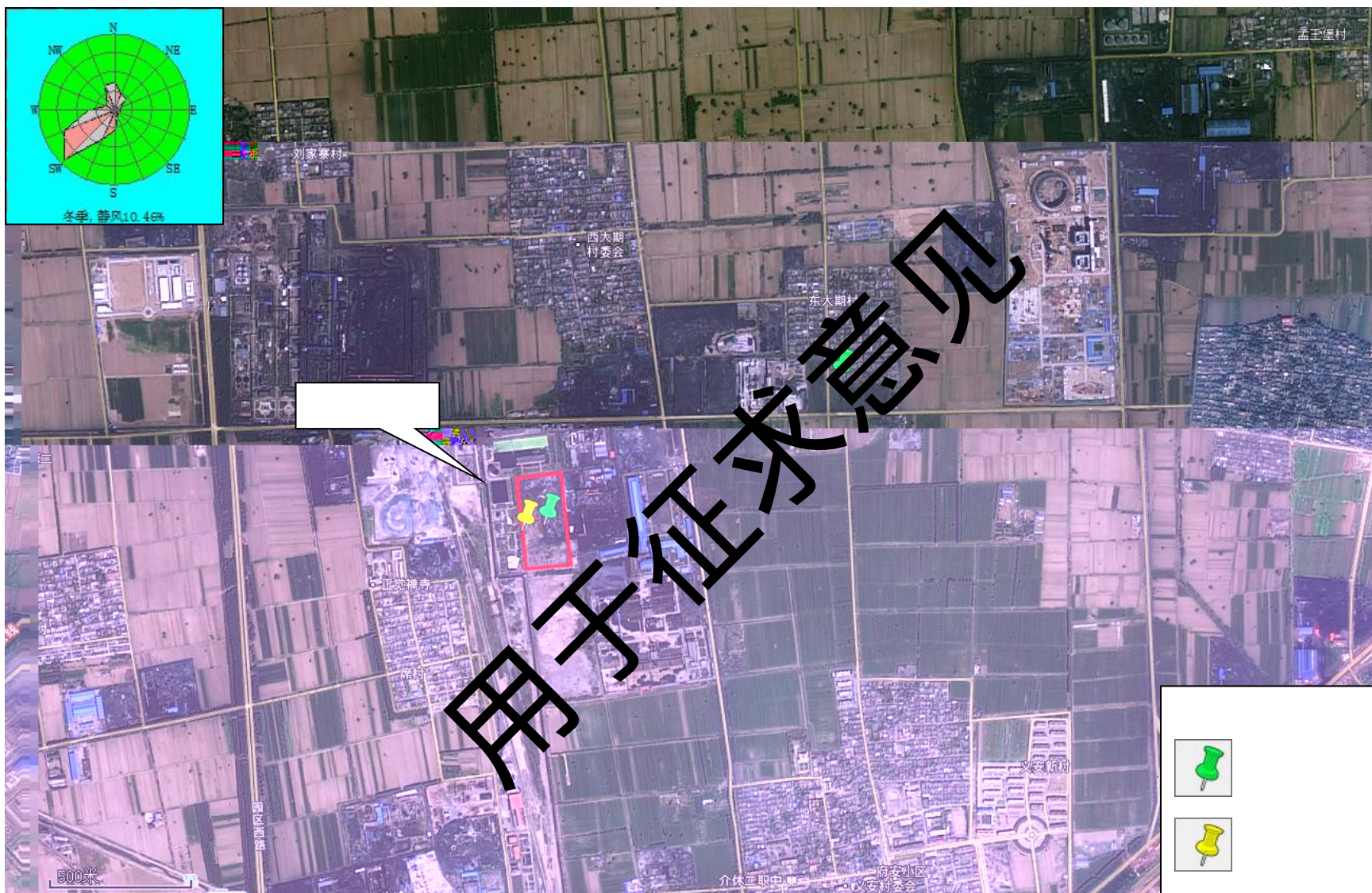
3

1 1

4

4.3-6

4.3-6				dB A		
				L_{eq}		
1#	49.2	65		47.0	55	



500m

4.3-1

5

5.1

5.1.1

5.1-1

5.1-1

/	/		3km 50%
		43.6	
/		40.6	20
/		-21.9	20
			3km
		☒ ☐	
	/m	90m	90m
		☐ ☒	/
	/m	/	/
	/°	/	/

5.1.2

AERSCREEN

5.1-2

5.1-2

	$\mu\text{g}/\text{m}^3$	/%	$\mu\text{g}/\text{m}^3$	/%	$\mu\text{g}/\text{m}^3$	/%	$\mu\text{g}/\text{m}^3$	/%
NO _x	5.5323	2.77	5.5323	2.77	1.3802	0.69	-	-
NH ₃	0.2764	0.14	0.2764	0.14	-	-	-	-
NMHC	-	-	-	-	-	-	150.32	7.52
/%	5.5323	2.77	5.5323	2.77	1.3802	0.69	150.32	7.52

5.1.3

5.1-3~ 5.1-5

5.1-3					
			mg/m ³	kg/h	t/a
1		NO _x	50	0.5	4.0
		NH ₃	2.5	0.025	0.2
2		NO _x	50	0.5	4.0
		NH ₃	2.5	0.025	0.2
3		NO _x	150	0.75	0.6
		NO _x			8.6
		NH ₃			0.4

5.1-4								
					mg/m³		/ t/a	
1			VOCs	VOCs	GB37822	6	1h	15.822
						20		
				VOCs			15.822	

5.1-5		
		/ t/a
1	NO _x	8.6
2	VOCs	15.822
3	NH ₃	0.4

5.1.4

5.1-6

5.1-6

		☐	☒	☐
		$\geq 50\text{km}$ ☐	$5 \sim 50\text{km}$ ☐	$\geq 5\text{km}$ ☒
	$\text{SO}_2 + \text{NO}_x$	$\geq 2000\text{t/a}$ ☐	$500 \sim 2000\text{t/a}$ ☐	$< 500\text{t/a}$ ☒
		(NO_2) (NH_3)	$\text{PM}_{2.5}$ ☐ $\text{PM}_{2.5}$ ☒	
		☒	☒	D ☐
		☐	☒	☐
		2022		
		☒	☐	☒
		☐	☒	☐
		☒	☐	☐
		☐	☐	☐
		AERMOD ☐	ADMS ☐	AUSTAL2000 ☐
		☐	☐	☐
		$\geq 50\text{km}$ ☐	$5 \sim 50\text{km}$ ☐	$\geq 5\text{km}$ ☒
		$\text{PM}_{2.5}$ ☐ $\text{PM}_{2.5}$ ☐	$\text{PM}_{2.5}$ ☐ $\text{PM}_{2.5}$ ☐	
		$C_{\text{本项目}} \leq 100\%$ ☐	$C_{\text{本项目}} > 100\%$ ☐	
		$C_{\text{本项目}} \leq 10\%$ ☐	$C_{\text{本项目}} > 10\%$ ☐	
		$C_{\text{本项目}} \leq 30\%$ ☐	$C_{\text{本项目}} > 30\%$ ☐	
	1h	$C_{\text{非正常}} \leq 100\%$ ☐	$C_{\text{非正常}} > 100\%$ ☐	
		$C_{\text{叠加}} \leq \text{标准值}$ ☐	$C_{\text{叠加}} > \text{标准值}$ ☐	
		$k \leq -20\%$ ☐	$k > -20\%$ ☐	
		NO_x NH_3	☒ ☒	☐
		NH_3	1	☐

		☒ ☐			
		m			
		SO ₂ : t/a	NO _x : 8.6 t/a	: t/a	VOCs: 15.822 t/a
“ ☐ ” “ ☒ ” “ ”					

5.2

5.2.1

5.2.1.1

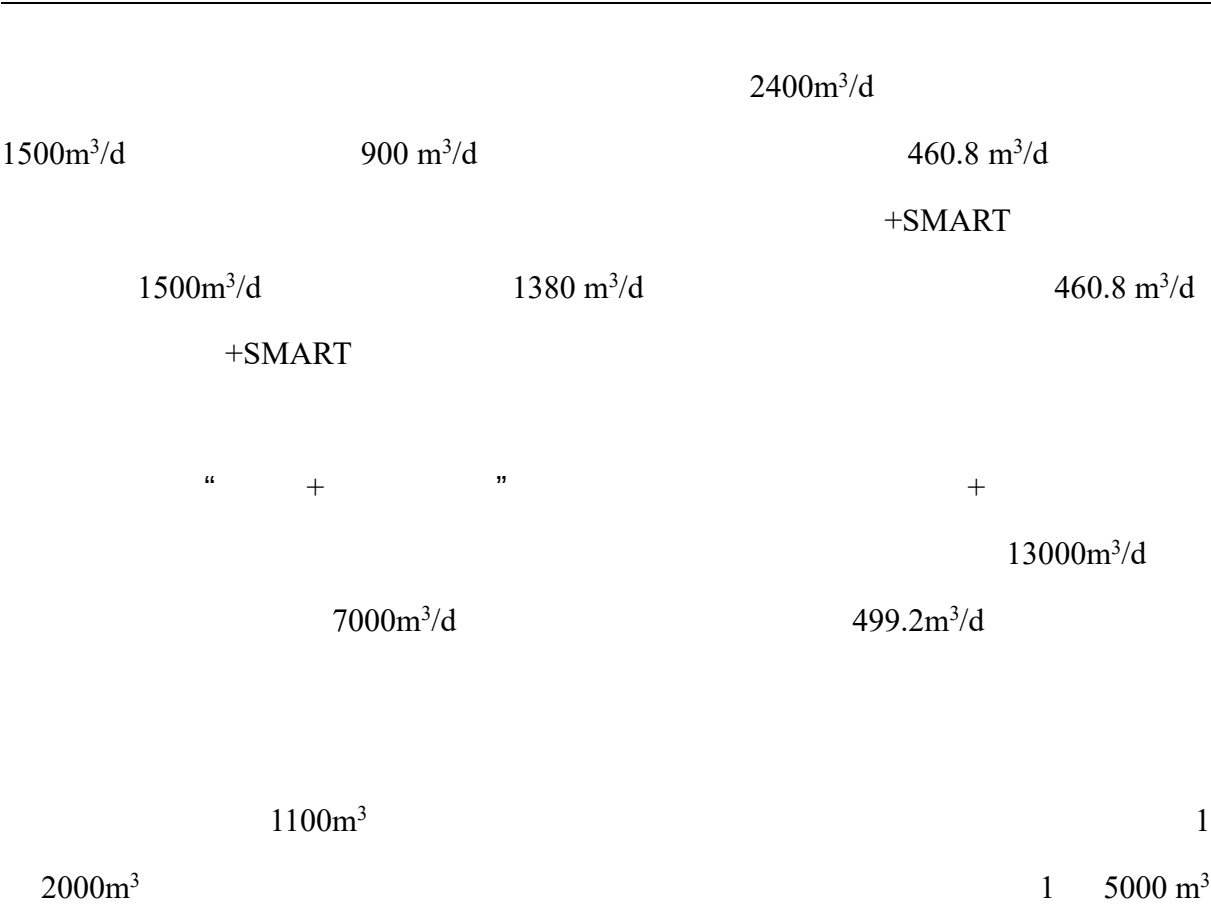
5.2.1.2

5.2.2

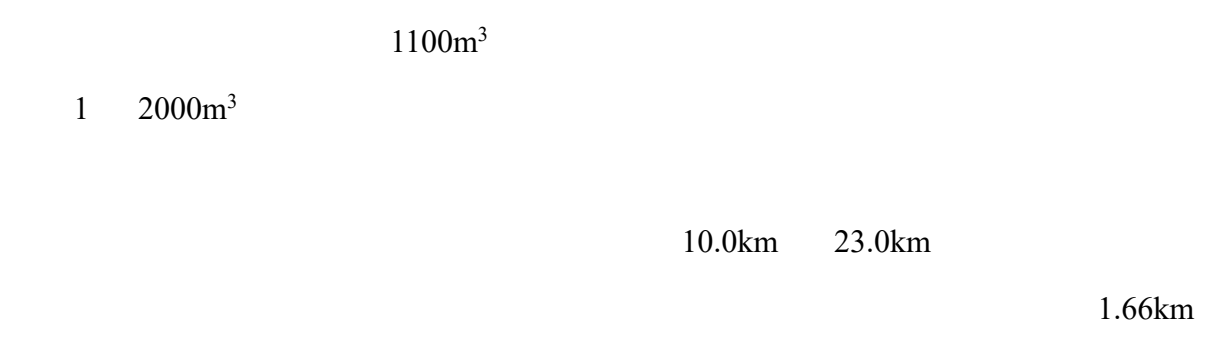
“ + ”

+ +A²O +

+ +SMART



5.3



5.3
0.2 «*»

		200m		200m		200m		
		A		A				
		0	1	2	3	4a	4b	
“”		√ “ ”						

5.5

5.6

1100m³

1 2000m³

5.7

5.7.1

5.7.1.1

HJ169-2018

5.7-1

1				91t

5.7.1.2

/

2.6-1

5.7-2

	500					
				km		
	1		SW	254		826
	2		N	500		1500
	500m					2326
	E					E1

	500m	E1	5km	2.6-1
			24h	/km
1	-	-	-	
	E			E3
				/m
1		III	-	-
	E			E3

5.7.2

5.7.2.1

Q

Q

5.7-3

	CAS	g _m /t	Qn /t	Q
1	1336-21-6	1	10	9.1
Q _Σ				9.1
1 × 100m ³		0.9 g/mL		

5.7.2.2

M

5.7-4

HJ169-2018

C

M

5.7-4

M

HJ 169-2018 C.1						
						/ M
1		10				1 10
2		5	-			1 5
M Σ						15
* ≥300		P ≥10.0 MPa				

M

15

M2

5.7.2.3

P

Q

M

P

5.7-5					P
Q	M				
	M1	M2	M3	M4	
Q≥100	P1	P1	P2	P3	
10≤Q 100	P1	P2	P3	P4	
1≤Q 10	P2	P3	P4	P4	
P3					

5.7.2.4

HJ169-2018

5.7-6

5.7-6				
E	P			
	P1	P2	P3	P4
E1	IV ⁺	IV	III	III
E2	IV	III	III	II
E3	III	III	II	I

5.7-7				
	P	E		
	P3	E1	III	III
			III	III

5.7.2.5

5.7-8

5.7-9

5.7-8				
	IV IV ⁺	III	II	I

5.7-9			
1		III	

,

5.7.3

HJ169-2018

[illegible]

5.7.4.2

5.7-11

				91t

5.7.4.3

5.7.4.4 /

/

/

5.7-12 / 5.7-12

	/				

5.7.4.5

5.7-13

5.7-13

1			/		

5.7.5

5.7.5.1

5.7-14

5.7-14			
%	72	12	16
35	38		

5.7.5.2

	HJ169-2018	E	
5.7-1	10 ⁻⁴		10 ⁻⁶
10 ⁻⁸	10 ⁻⁵	10 ⁻⁷	10 ⁻⁸
			10mm
	10 ⁻⁴ /a		

5.7.5.3

表 E. 1 泄漏频率表		
部件类型	泄漏模式	泄漏频率
反应器/工艺储罐/气体储罐/塔器	泄漏孔径为 10 mm 孔径 10 min 内储罐泄漏完 储罐全破裂	1.00×10 ⁻⁴ /a 5.00×10 ⁻⁶ /a 5.00×10 ⁻⁶ /a
常压单包容储罐	泄漏孔径为 10 mm 孔径 10 min 内储罐泄漏完 储罐全破裂	1.00×10 ⁻⁴ /a 5.00×10 ⁻⁶ /a 5.00×10 ⁻⁶ /a
常压双包容储罐	泄漏孔径为 10 mm 孔径 10 min 内储罐泄漏完 储罐全破裂	1.00×10 ⁻⁴ /a 1.25×10 ⁻⁸ /a 1.25×10 ⁻⁸ /a
常压全包容储罐	储罐全破裂	1.00×10 ⁻⁸ /a
内径≤75mm 的管道	泄漏孔径为 10%孔径 全管径泄漏	5.00×10 ⁻⁶ / (m·a) 1.00×10 ⁻⁶ / (m·a)
75mm<内径≤150mm 的管道	泄漏孔径为 10%孔径 全管径泄漏	2.00×10 ⁻⁶ / (m·a) 3.00×10 ⁻⁷ / (m·a)
内径>150mm 的管道	泄漏孔径为 10%孔径（最大 50 mm） 全管径泄漏	2.40×10 ⁻⁶ / (m·a) * 1.00×10 ⁻⁷ / (m·a)
泵体和压缩机	泵体和压缩机最大连接管泄漏孔径为 10%孔径（最大 50 mm） 泵体和压缩机最大连接管全管径泄漏	5.00×10 ⁻⁴ /a 1.00×10 ⁻⁴ /a
	装卸臂连接管泄漏孔径为 10%孔径（最大	3.00×10 ⁻⁷ /h

5.7.5.4

1

2

HJ169-2018

0.0666kg/s

0.3330kg/s

5.7.6

1

HJ169-2018

G

T_d

T

$T = 2X/U_r$

X—

m

U_r—10m

1.5m/s

254m

T_d

15min

T 5.64min T_d T

AFTOX

2

5.7-15

5.7-15

		0.3330kg/s 0.06kg/s

3

5.7-16

	/ (°)	11.98180000	37.09731405
	/ (m/s)	1.5	/
	/	25	/
	/ %	50	/
		F	/
	/m	1.0	1km
		GBT 12343.1-2008	1
		1 25000 1 50000 1 100000	
		300m	
	/m		/

4

5.7-17

		CAS	-1/ mg/m ³	-2/ mg/m ³
1		1336-21-6	770	110

5

5.7-18

5.7-18

a					
		/	20	/MPa	
		/kg	91000	/mm	10
/ kg/s	0.3330 0.0666	/min	15	/kg	300 60
/m		/kg	50		1.00×10 ⁻⁴
			/(mg/m ³)	/m	/min
		-1	770	10	0.56
		-2	110	170	1.89
			/min	/min	/(mg/m ³)
		/	/	/	/
			/h		/h
/	/	/	/	/	/
		/h	/h	/h	/(mg/L)
		/	/	/	/
			/d	/d	/d
/	/	/	/	/	/(mg/L)
		/d	/d	/d	/(mg/L)
/	/	/	/	/	/
a					
b					

a.

5.7-19

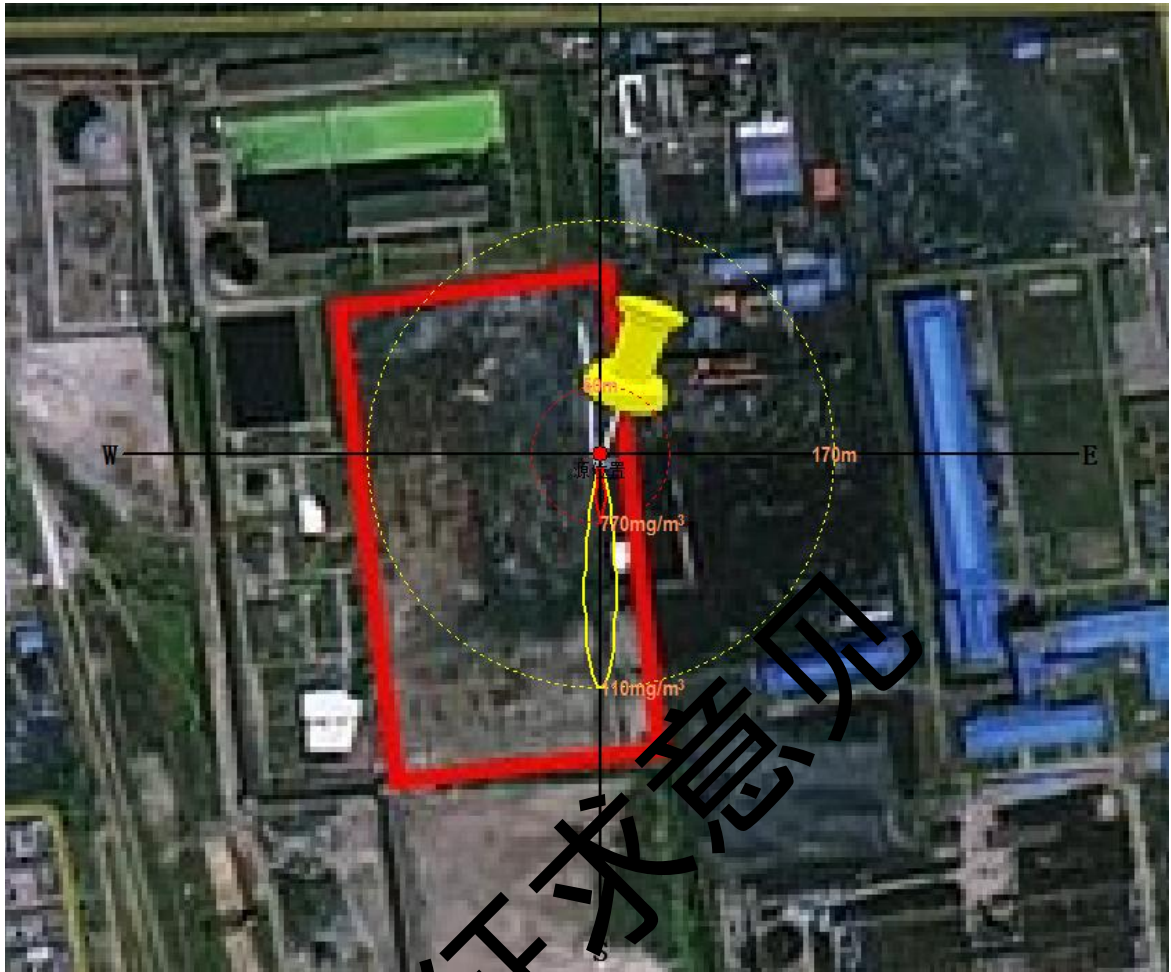
5.7- 19

	m	(min)	mg/m ³	110 mg/m ³ m	770 mg/m ³ m
1	10	0.11	5114.40	2	2
2	20	0.22	2927.7	4	2
3	30	0.33	1736.10	6	4
4	40	0.44	1146.10	8	2

5	50	0.56	817.05	10	/
6	60	0.67	615.06	10	/
7	70	0.78	481.84	10	/
8	80	0.89	389.08	10	/
9	90	1.00	321.72	12	/
10	100	1.11	271.13	12	/
11	110	1.22	232.10	12	/
12	120	1.33	201.29	10	/
13	130	1.44	176.51	10	/
14	140	1.56	156.25	10	/
15	150	1.67	139.45	8	/
16	200	2.22	86.62	/	/
17	300	3.33	44.11	/	/
18	400	4.44	27.28	/	/
19	500	5.56	18.78	/	/
20	1000	11.11	4.90	/	/
21	1500	21.67	3.02	/	/
22	2000	28.22	2.06	/	/
23	2500	35.78	1.58	/	/
24	3000	40.33	1.22	/	/
25	3500	45.89	0.97	/	/
26	4000	51.44	0.81	/	/
27	4500	57.00	0.69	/	/
28	5000	62.86	0.59	/	/

b.

5.7-2



5.7-2

1h

2

1h

5.7-2

-1

50m

-2

170m

5.7.7

5.7.7.1

1

1

用于征求意见

50%

-1

50m

-2

170m

30

1

2

3

4

5

6

2

用于征求意见

30

2000m³

5000m³

3

用于征求意见

5.7.7.3

“ ” “ ”

1

2

用于征求意见

用于征求意见

1

1

2

3

4

5

6

2

1

2

3

4

4

5

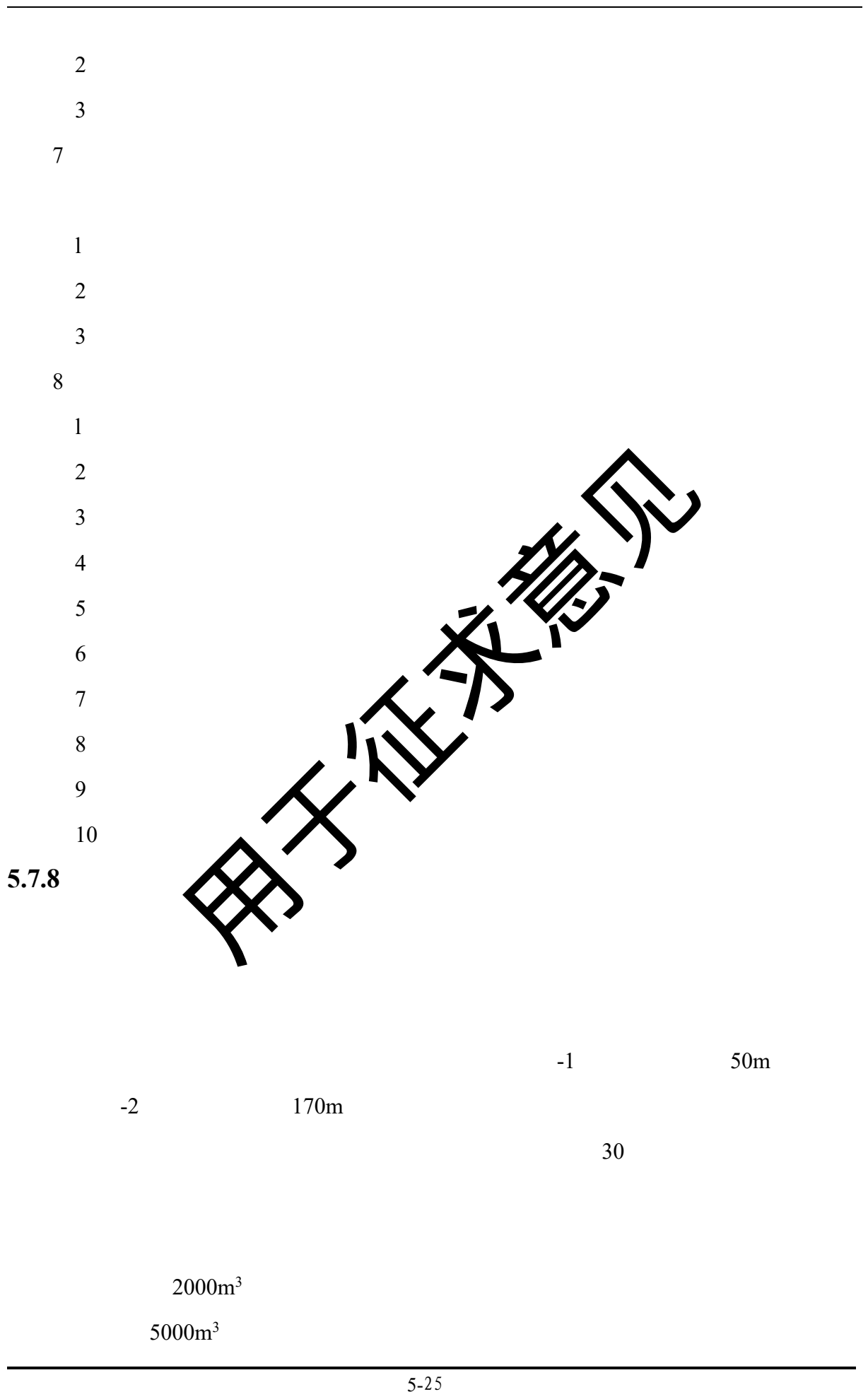
1

2

6

1

用于征求意见



5.7-20

5.7-20

					-	-	
		/t	91		-	-	
			500m	326	5km	/61598	
			200m				/
				F1□	F2□	F3√	
				S1□	S2□	S3√	
				G1□	G2□	G3√	
				D1□	D2□	D3√	
			Q<1□	1≤Q<10√	10≤Q<100□	Q>100□	
		M	M1□	M2√	M3□	M4√	
P		P1□	P2□	P3√	P4√		
		E1√	E2□	E3□			
		E1□	E2□	E3√			
		E1□	E2□	E3√			
	IV ⁺ □	IV□	III√	II□	I□		
	□	√	□	□			
		√		□			
		√	/ □				
		√	□	□			
		√	□	□			
		SLAB□	AFTOX√	□			
		-1 50 m					

			-2	170 m
			/	
			/	
			/	
		150m ³	2000m ³	
			5000m ³	

5.8

2021 4

2021 437

5.8.1

2021 437

用于征求意见

CO₂

CO₂

CO₂

5.8-1

5.8-1 CO₂

				/
1				
2				/
3				
4				/
5				/

5.8.2

2021 437

1

/

2

1

/

2

CO₂

$$E_{\text{co2}} = E_{\text{燃烧}} + E_{\text{过程}} - E_{\text{电和热}} - R_{\text{固碳}}$$

E_{co2} —CO₂

t

$E_{\text{燃烧}}$ —

CO₂

t

$E_{\text{过程}}$ —

CO₂

t

$E_{\text{电和热}}$ —

CO₂

t

$R_{\text{固碳}}$ —

CO₂

t

CO₂

$$E_{\text{燃烧}} = \sum_{i=1}^n AD_i \times EF_i$$

$E_{\text{燃烧}}$ —

CO₂

t

AD_i — i

GJ

EF_i — i

CO₂

tco₂/GJ

$$AD_i = NCV_i \times FC_i$$

$$NCV_i \text{ — } i \text{ GJ/t} \quad \text{GJ/ Nm}^3$$

$$FC_i \text{ — } i \text{ t Nm}^3$$

$$EF_i = CC_i \times OF_i \times \frac{44}{12}$$

$$CC_i \text{ — } i \text{ tc/GJ}$$

$$OF_i \text{ — } i \text{ \%}$$

$$CO_2$$

$$E_{\text{过程}} = E_{\text{熔剂}} + E_{\text{电极}} + E_{\text{原料}}$$

$$E_{\text{过程}} \text{ — } CO_2 \text{ t}$$

$$E_{\text{熔剂}} \text{ — } CO_2 \text{ t}$$

$$E_{\text{电极}} \text{ — } CO_2 \text{ t}$$

$$E_{\text{过程}} \text{ — } CO_2 \text{ t}$$

$$E_{\text{熔剂}} = \sum_{i=1}^n P_i \times EF_i$$

$$P_i \text{ — } i \text{ t}$$

$$EF_i \text{ — } i \text{ CO}_2 \text{ tco}_2/\text{t}$$

$$i \text{ —}$$

$$E_{\text{电极}} = P_{\text{电极}} \times EF_{\text{电极}}$$

$$P_{\text{电极}} \text{ — } t$$

$$EF_{\text{电极}} \text{ — } CO_2 \text{ tco}_2/\text{t}$$

$$E_{\text{原料}} = \sum_{i=1}^n M_i \times EF_i$$

$$M_i \text{ — } i \text{ t}$$

$$EF_i \text{ — } i \text{ CO}_2 \text{ tco}_2/\text{t}$$

$$i \text{ —}$$

$E_{电和热} = AD_{电力} \times EF_{电力} + AD_{热力} \times EF_{热力}$

$AD_{电力} \quad AD_{热力} \text{——} \quad \text{MWh} \quad \text{GJ}$
 $EF_{电力} \quad EF_{热力} \text{——} \quad \text{CO}_2 \quad \text{tco}_2/\text{MWh} \quad \text{tco}_2/\text{GJ}$
 CO_2

$R_{固碳} = \sum_{i=1}^n AD_{固碳} \times EF_{固碳}$

$R_{固碳} \text{——} \quad \text{CO}_2 \quad \text{tco}_2$

$AD_{固碳}$ ——第 i 种固碳产品的产量，t；

$EF_{固碳} \text{——} \quad i \quad \text{CO}_2 \quad \text{tco}_2/\text{t}$

i——

3

5.8-2

5.8-2

		Nm³	4528
		Nm³	138080
		GJ	1023344
		KWh	12956.8
		Nm³	2.7288

/

5.8-3

5.8-3

		Nm³	mol	%	CO₂ t	
		4528	138080	0.99	6018	
		Nm³	mol		CO₂ t	
		7840	3576480		157365	
/		MWh	CO₂	t _{co2} /MWh	t _{co2} /GJ	CO₂ t
		129.57MWh		0.5703		74
		MWh/GJ	CO₂	t _{co2} /MWh	t _{co2} /GJ	CO₂ t
		1023344		0.1		112568
		Nm³/	Gj			t
		1.3644	3471926	18.15443	0.98	235792
	-	-	-	-	-184903	

用于征求意见

6 环境保护措施及其可行性论证

6.1 建设期环境保护措施

6.1.1 建设期大气环境影响防治措施

HJ/T 393-2007

1

2

3

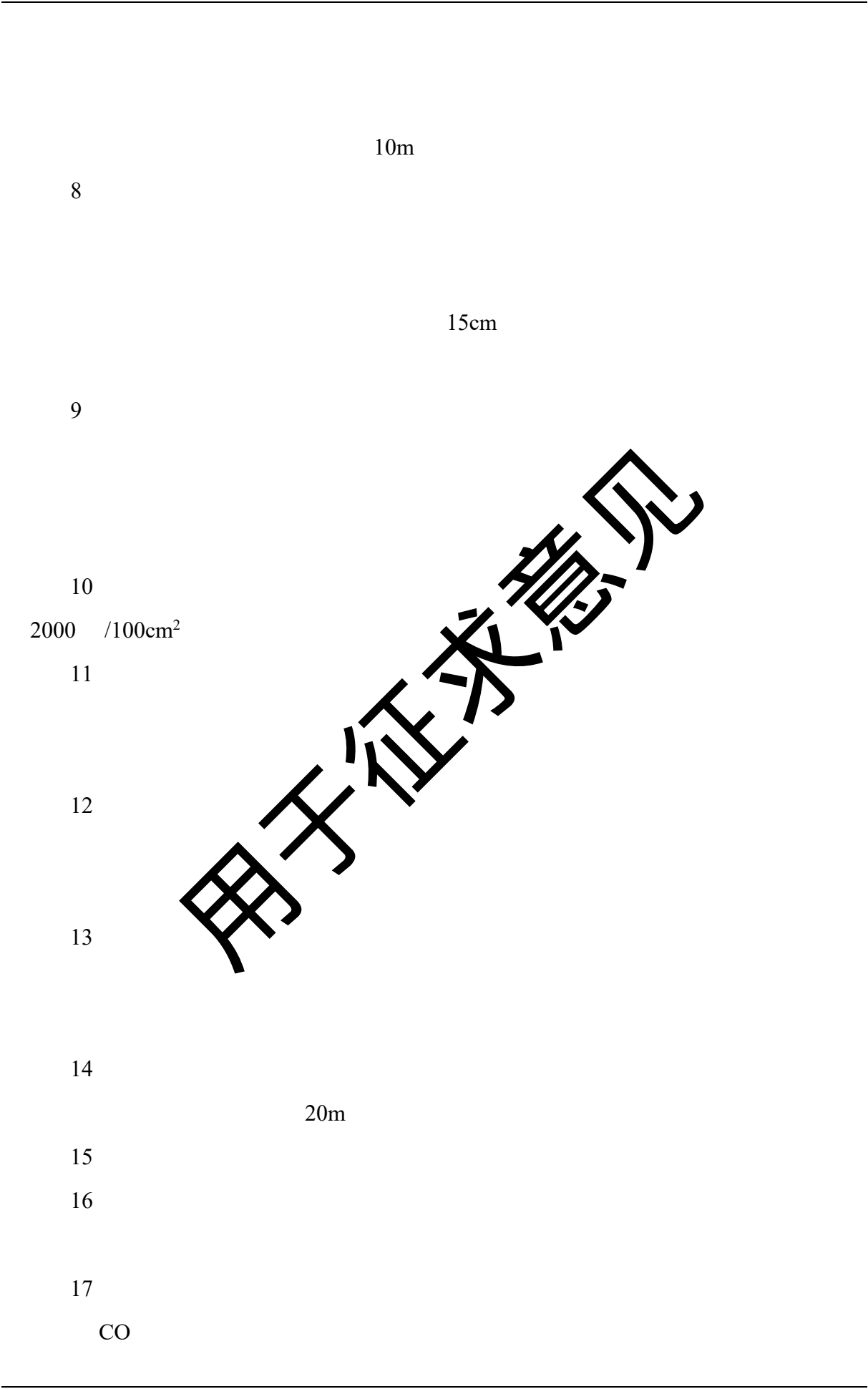
4

5

6

7

用于征求意见



18	“	”				
	“	100%	100%		100%	
	100%	100%		100%	”	

PM₁₀

250mg/m³

6.1.2 建设期废水影响防治措施

1						
2					100	
	0.1m ³ /d	10m ³	200	0.1m ³ /d		
	20m ³					

6.1.3 建设期噪声环境影响防治措施

1						
2						
3				90dB	A	

95dB A

4

5

6.1.4 建设期固体废物环境影响防治措施

1

2

3

4

5

6

7

8

6.1.5 建设期生态环境影响防治措施

1

用于征求意见

1

2

3

4

“ ”

5

20cm

6

2

用于征求意见

6.1-1

6.1-1

		SS	
		COD BOD ₅	

	—		
	—		

6.2 运营期环境保护措施及其可行性论证

HJ942
 HJ853

6.2.1 废气污染防治措施

TSA
 MDEA
 PSA
 TSA
 PSA
 +SCR
 MDEA

6.2-1

			NO _x	+SCR	
TSA	TSA		-	-	
MDEA			-	-	
PSA	PSA		-	-	
DEA	MDEA		CO ₂	-	
			N ₂	-	
		-	NO _x	-	
			VOCs	GB37822	GB37822-2019 VOCs

			LDAR	HJ1230-2021 LDAR	
--	--	--	------	---------------------	--

6.2.2 水污染防治措施

“

"

“

"

 $+A_2O$

+

+

+SMART

“

+

22

6.2.3 地下水及土壤污染防治措施

“

“

6.2.3.1

1

2

3

“

22

“

“

4

6.2.3.2

HJ 610 2016 7

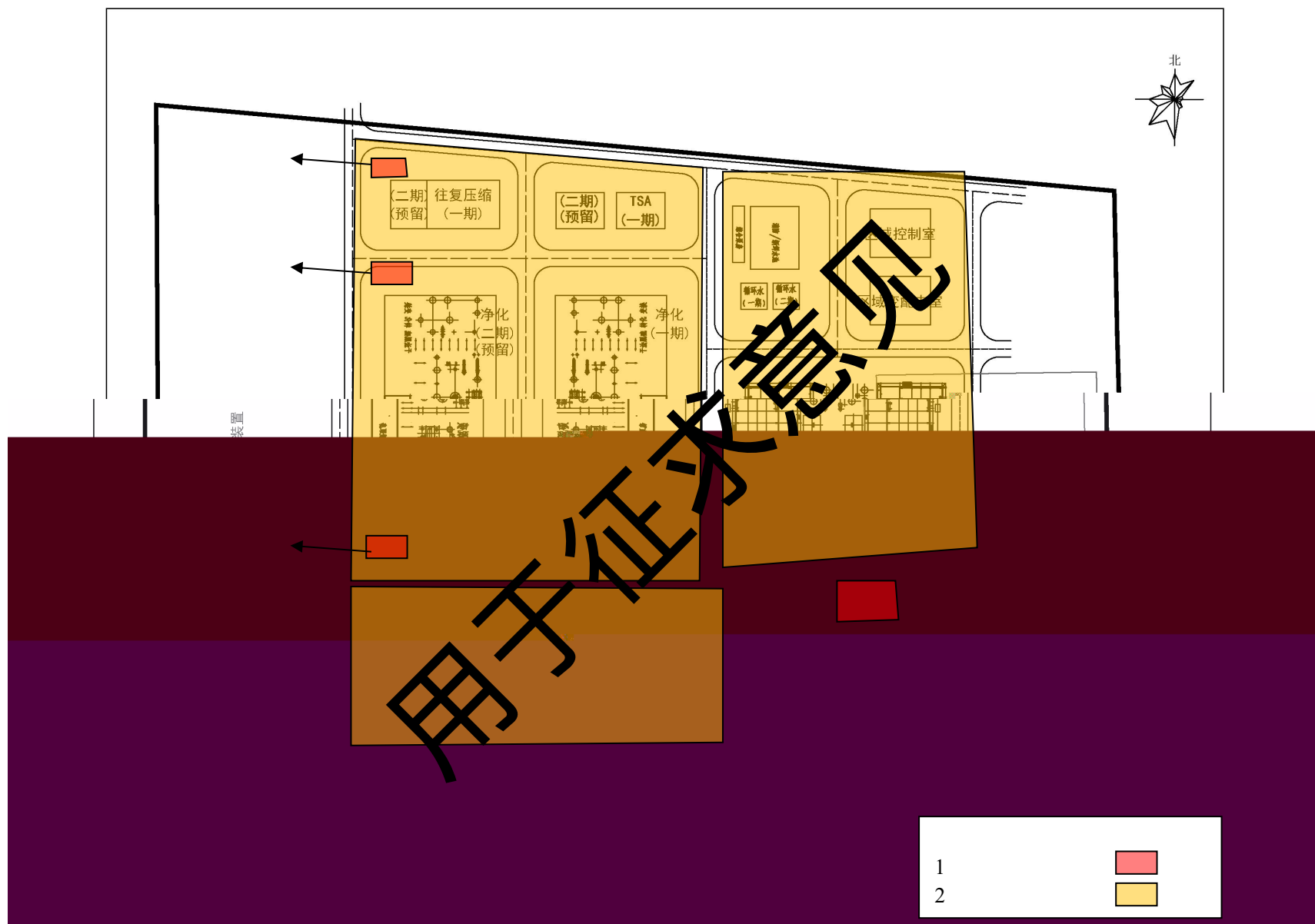
GB/T 50934-2013

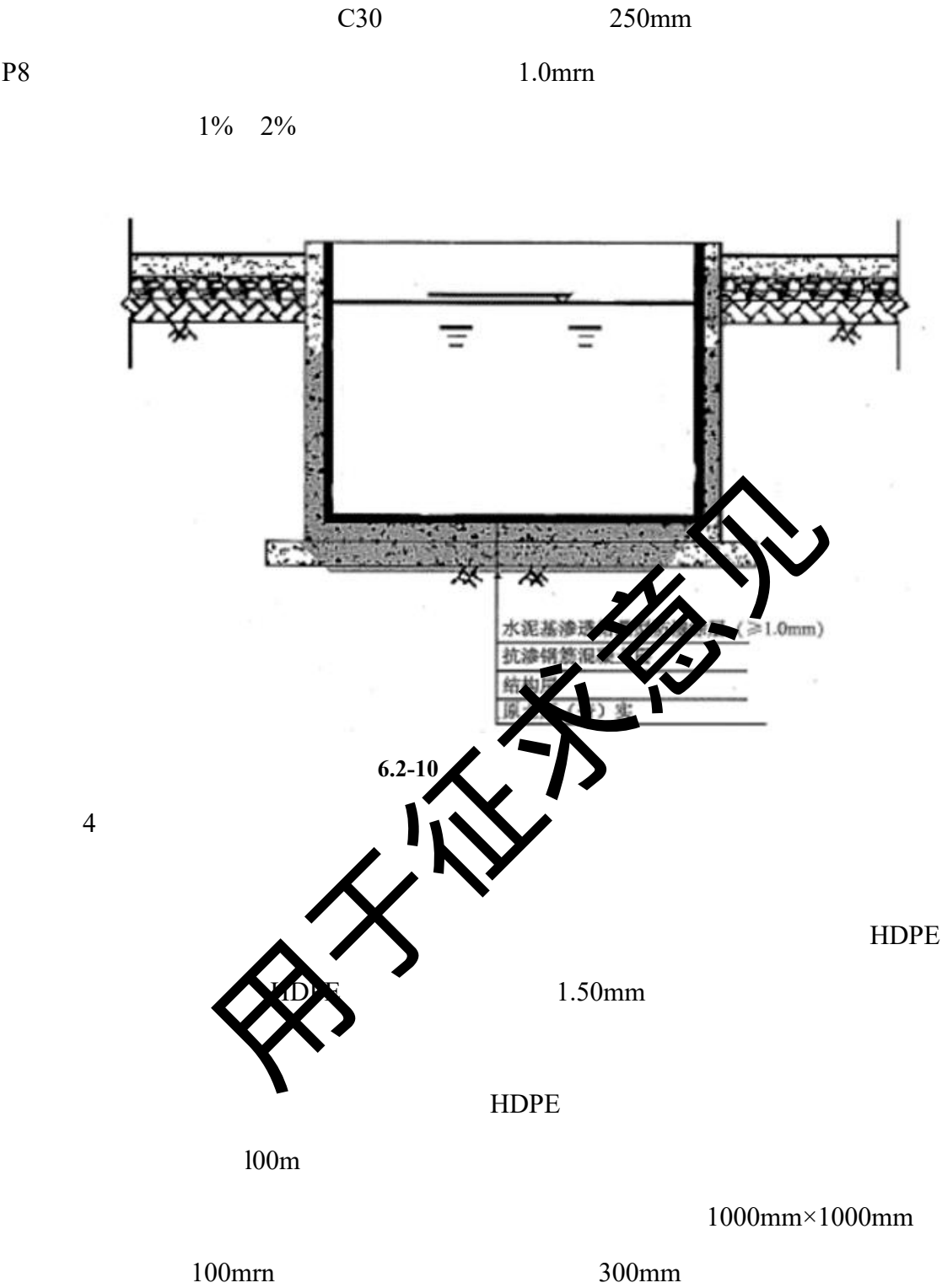
1

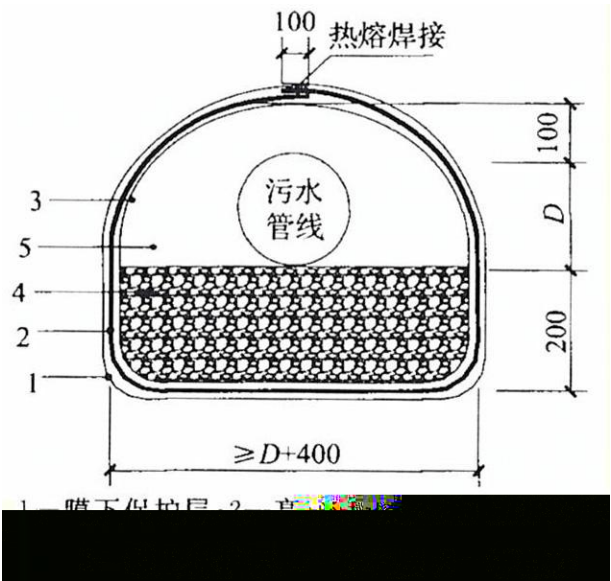
2

3

用于征求意见







6.2-10

HDPE

2

1

C30

250mm

P8

2

用于征求意见

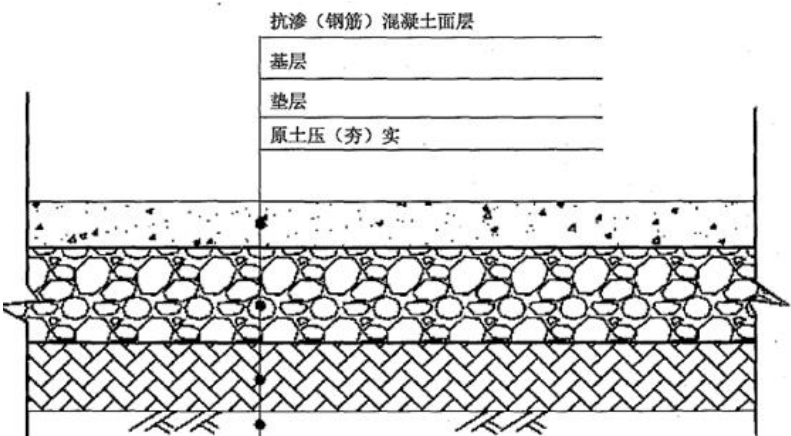
5.2-4

P6

100mm

1.5m

1.0×10^{-7} cm/s



6.2-11

3

3

$1.0\times 10^{-6}\text{cm/s}$

$1.0\times 10^{-6}\text{cm/s}$

6.2.3.3 应急相应

用于征求意见

[2006] 43

GB50160-2008 2018

2000m³

GB/T50483-2019

20mm

50300m²

1006m³

1100m³

6.2.4 固体废物处理/处置措施及技术经济可行性

6.2.5 噪声防治措施

6.2.5.1 对各种机电产品噪声要求

6.2.5.2 对装置区噪声防护措施

10dB A

“ — — — ”

3000

6.3-1

1	TSA		1000
2		SCR	
3	MDEA		
4			
5			
6	PSA		
7			
8		LDAR	
1			500
2			
3			
4			
5			
6			
7		1100m ³	
8		1100m ³	
9			
1			300
1			500

2			
3			
4			
5			
6			
7			
8			
9			
10			
11	PSA		
12			
13			
14			
15			
16			
1		1100m³	700
2			
3		1100m³	
4			
5			
6			
			3000

6.4 环境影响经济损益

15614

3000

“

”

“

”

“

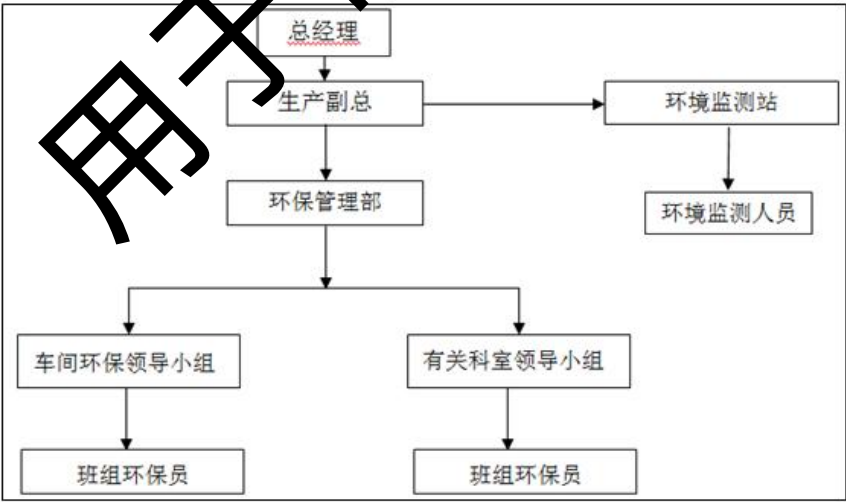
”

7

7.1

7.1.1

7.1.1.1



7.1-1

7.1.1.2

2

用于征求意见

3

4

用于征求意见

5

7.1.2

1

1

2

3

4

2

用于征求意见

1

2

3

4

5

6

7

8

9

10

11

1

2

“

3

4

用于征求意见

7.1.3

7.1.3.1

1

2

3

4

5

6

GB 1556.2-95

1

2

GB 15562.1-95

7.1-1~7.1-2

7.1-1

7.1-2

--	--	--	--	--

1				
2				
3				
4				
5	—			

1

2

7.1.3.2

“ ”

[2016]95

1

7.2

7.2.1

HJ947

HJ819

7.2-1

7.2-1

				NH ₃ NO _x	
				NH ₃ NO _x	
				pH CODCr	/ 1
				A	

7.2.2

7.2-2

7.2-2

			NH ₃	1 /

用于征求意见

8 环境影响评价结论

8.1 建设项目概况

“ 30000m³/h ”
150 TSA
PSA 64529 3000
4.65% 2023 3 8
2303-140762-89-05-807872

8.2 环境质量现状

8.2.1 环境空气质量现状

2022 2022
CO SO₂ NO₂ PM₁₀ PM₂.₅ O₃

8.2.2 声环境质量现状

2023 2 24
1# 49.2dB A
47.0dB GB3096- 2008 3

8.3 环境保护措施及污染物排放情况

8.3.1 废气

TSA MDEA
PSA
TSA PSA
+SCR MDEA
VOCs

VOCs15.822t/a Nox8.6t/a

8.3.2 废水

+ +A2O +
+SMART “ +
”

8.3.3 固体废物

用于征求意见

8.3.4 噪声

8.4 主要环境影响

8.4.1 环境空气

PM₁₀ PM_{2.5} O₃

8.4.2 固体废物

8.4.3 声环境

GB12348-2008 3

8.4.4 水环境

+ + +A2O +
+SMART “ +
”

8.4.6 环境风险

8.5 公众参与意见采纳情况

2018 7

4

8.6 环境管理与监测计划

8.7 评价结论

用于征求意见

30000m³/h

“ ”