

$$\begin{array}{ccc} & & \tilde{E}' \\ \downarrow & 1.5 & U \\ & \tilde{J} & \vartheta \end{array}$$

ZHEJIANG UNIVERSITY

O 7

	Ẽ	1.5	U	3
1	¶			1
1.1	ĩ			1
1.2	š E b			2
1.3	№ ∞ ˆ			3
1.4	ĩ ˆ			
1.5				6
2	‡			7



$\tilde{E}$ $\sqrt{}$ 1.5 U $\tilde{\gamma}$ ρ

$\tilde{E}$	$\downarrow$	1.5	U	$\tilde{\mathfrak{z}}$	$\mathfrak{p}$
-------------	--------------	-----	---	------------------------	----------------

1 β

2 $\tilde{G}$ N_0

3 w $\mathfrak{M}$ $\frac{7}{8}$

4 w $\mathfrak{M}$ $\frac{7}{8}$

5 $\frac{7}{8}$

6 $\mathfrak{M}$ $\downarrow$ $\mathfrak{H}N_0$

7 $\tilde{G}$ N_0

8

9 $\circ$ $\tilde{\mathfrak{i}}$ $\circ$ N_0

10

11

$\mathfrak{D}$

$\mathfrak{D}$ 1 $\%$ $\mathfrak{M}$ $[2018]2^{\sim}$

$\mathfrak{D}$ 2 $\downarrow$ $\tilde{0}$ $\mathfrak{E}$ 2 Ψ τ $\tilde{0}$ 2021

$\sim$ $\frac{7}{8}$ $\downarrow$ $\neq$ $\mathfrak{P}[2021]71^{\sim}$

$\mathfrak{D}$ 3 $\circ$

$\mathfrak{D}$ 4 $\circ$ M

$\mathfrak{D}$ 5 $\circ$ $\mathfrak{r}$

$\mathfrak{D}$ 6 $\tilde{G}$ $\downarrow$ τ $\tilde{0}$ $\mathfrak{M}$ $\uparrow$ $\mathfrak{M}$ $\tilde{\mathfrak{i}}$

$\mathfrak{M}$ L $\frac{7}{8}$ $\tilde{G}$ $\mathfrak{P}[2017]427^{\sim}$

$\mathfrak{D}$ 7 τ $\tilde{E}$ $\downarrow$ 1.5 U

$\tilde{\mathfrak{z}}$ $\mathfrak{p}$ $[2018]149^{\sim}$

$\mathfrak{D}$ 8 $\tilde{E}$ $\downarrow$ 1.5 U

$\tilde{G}$

$\mathfrak{D}$ 9 $\sim$

$\mathfrak{D}$ 10 $\downarrow$ $\sim$

$\mathfrak{D}$ 11 $\tilde{0}$ $\mathfrak{D}$

	$\tilde{E}$	$\downarrow$	1.5	U	$\tilde{\rho}$	ρ
Đ 12	$\downarrow$	$\downarrow$	$\tilde{I}$	$\downarrow$	$\sim$	
Đ 13		ρ				
Đ 14				Ψ		
Đ 15		$\sim$		ρ	$\tilde{I}$	Ψ
Đ 16		$\tilde{E}$		$\downarrow$	1.5	U
	Ψ					
Đ 17		ρ				
Đ 18		$\tilde{\rho}$	ρ	β	L	,
Đ 19		$\tilde{\rho}$	ρ		L	,
		$\tilde{\rho}$	ρ		H	

$$\tilde{E} \quad \quad \quad \vee \quad \quad \quad 1.5 \quad U$$

			$\tilde{E}$	$\downarrow$	1.5	U			$\tilde{\rho}$	ρ
τ	$\bar{G}$	γ	$\tilde{I}$	$\tilde{E}$	$\downarrow$		L	$\tilde{\rho}$	ρ	

1.2 $\tilde{E} \mathfrak{b}$

$\tilde{E} \mathfrak{b} \mathbb{N}_0$
 1 $\parallel \%$ $\mathfrak{b}$
 $\tilde{I} U \tilde{I} \tilde{r} \tilde{r} \Delta \tilde{I} \mathbb{N}_0$
 $\tilde{E} \neq E E \mathfrak{b}$
 $\tilde{G} E \tilde{I} E \% L \mathfrak{b}$
 2 $\mathbb{N}_0 \mathfrak{b} \mathbb{N}_0 E$
 $\mathbb{N}_0 \square E \dot{\rho}$
 $E \circ \mathbb{N}_0 \circ$
 $\tilde{E} \mathfrak{b}$
 3 $\tilde{E} \mathfrak{b} L$
 $\mathbb{N}_0 \circ \wedge$
 $\mathfrak{b} \tilde{I} E \mathfrak{b} \tilde{E}$
 $L \tilde{E} \mathfrak{b} \circ \tilde{I} U$
 $L \dot{I}_r 1.2-1$



3

1.3 No

1.3.1



E		1.5 U		3 p	
o		~ %		Y D	
vii		G		CODcr SO2	
NOx		VOCs G		M p q =	
viii		U M		1 i M L	
78					
1.3.3		viii		∞	
		2019		k :	
“ M		G		vii ≠ M i C	
n		U L i		i ”	
		i M		% ~	
		2.5km p		G β M	
M u 2604m		o		CODCr SO2 NOx	
VOCs G		M		p q =	
U		vii i M		% ~	
viii		G			
1.3.4		E i		∞	
		3 E No		O 2021	
O		“ M		G G	
≠ i		” E		p	
		i M		W'E i U <	
+ %”		>		W U 2017 259~	
“		U M		1 ”	
		1		M	
G		”		L 3 p	
3		i U		3 E D	
		2019		E p	
W'E 1 i		n		“ M + %”	
[2017]57~)		1 i U <		(W U	
		3 E D		1 2019	

$\tilde{E}$	$\surd$	1.5	U	$\tilde{\gamma}$	ρ
-------------	---------	-----	---	------------------	--------

1/ M
 $\tilde{I}$ No

1.4 $\tilde{I}$ τ

- 1 ' $\tilde{I}$ τ
- 2 $\neq$ $\surd$ τ
- $\dot{E}_{\text{VII}}$
 τ
- 3 τ
- $\tilde{I}$ $\sim$
- 4 τ $\tilde{U}$ $\oplus \gamma \tilde{I}$ $\tilde{U}$
 τ $\tilde{U}$ $\gamma \dot{E}$ τ $\sim$
- 5 τ $\tilde{\gamma}$

1.5

$\tilde{E}$ $\tilde{U}$ M $\tilde{I}$
 277 $\sim$ $\surd$ 1.5 U $\dot{E}$ ' 3000 U
 $\surd$ 1.5 U 70t/d
 $\circ$ U No $\int$.
 $\dot{E}$ $\tilde{U}$ M $\frac{7}{8}$ M " γ "
 γ "H $\tilde{I}$ $\% \sim$ γ τ
 $\% \dot{E}$ L γ r
 $\frac{7}{8} \dot{E}$ $\tilde{U}$ M $\frac{7}{8}$ γ $\% \sim$
 $\dot{E}$ U
 $\neq$ $\tilde{U}$ $\square$ $\gamma \beta$ $\tilde{E} \wedge \tilde{\alpha}$ γ L
 $\tilde{E} \wedge \tilde{\alpha}$ ρ $\tilde{E} \wedge \tilde{\alpha}$ τ $\oplus$ $\gamma \beta$ $\tilde{E}$
 $\wedge \tilde{\alpha}$
 Γ $\tilde{G}$ $\tilde{E}$ γ M
 $\sim$

2 $\updownarrow$

2.1 $L \, \mathfrak{w}$

2.1.1

(1) $\mathbb{K}$ $\acute{o}$

Ξ

		$\tilde{E}$	$\downarrow$	1.5	U	$\tilde{\mathfrak{z}}$	$\mathfrak{p}$
(14)	$\vdash$	τ	$\downarrow \tilde{U}$	$\cdot$	$\mathbb{Z}_8$	$\tilde{U}$	[2016]31 [~]
2016	5	28					
(15)	$\vdash$	τ	$\downarrow \tilde{U}$	$\tilde{G} \downarrow$	$\cdot$	$\mathbb{Z}_8$	$\tilde{U}$ [2018]22
[~] 2018	6	27					
(16)	τ	$\oplus$	ψ	$\tilde{\mathfrak{z}}$	E	$\tilde{U}$	[2012]98
[~] 2012	8	7					
(17)	τ	γ	$\cdot$	ψ	$\tilde{\mathfrak{z}}$	E	
[2016]150 [~]							
(18)	τ	$\uparrow \downarrow$		$\mathfrak{z} \neq$		$\mathfrak{z} \mathfrak{E}$	
$\mathfrak{z}$			r [2019]92 [~]	2019.10.15			
2.1.2		$\mathfrak{D}$					
(1)			$\mathfrak{D}$	(2020	11	27	$\acute{k}$)
(2)		r		$\mathfrak{D}$	(2017	$\acute{k}$	) $\mathfrak{M}$
η	ψ	$\vdash$	2ψ	$\mathfrak{M}$	ψ	2017	9 30
(3)							

$$\tilde{E} \quad \sim \quad 1.5 \quad U$$

ᄡᄢ										ᄡ	1.5	U	ᄢ	ᄢ
W ᄢ [2017]265ᄢ										2017.12.28				
(26)	ᄢ	ᄡ ᄢ <	ᄡ “	ᄡ ”	ᄡ	>	W							
ᄢ	2018	135ᄢ												
(27)	ᄢ	ᄡ	W`E	ᄢ	ᄡ ᄢ	ᄢ	ᄡ	ᄢ ᄡ						
2018	ᄡ	7/8												
(28)	ᄢ	ᄢ	ᄡ	ᄡ No	W	No	ᄢ							
ᄢ [2020]10ᄢ														
(29)	ᄢ	ᄡ ᄢ	ᄡ	ᄢ a	ᄢ	W								
W ᄢ [2014]253ᄢ										2014.9.30				
(30)	ᄢ	ᄡ	ᄢ	7/8	2017									
(31)	ᄢ	ᄡ	W`E	ᄢ	ᄡ ᄢ	ᄡ ⇔	ᄡ	ᄡ	“					
” ᄢ			W ᄢ 2020 111ᄢ											
2.1.3														
(1)	(2019) (ᄡ ” ᄢ ᄢ ᄢ													
2 ᄡ ᄡ	29ᄢ ᄡ 2020 1 1													
(2)	ᄢ	ᄡ ᄢ <	ᄡ	%ᄢ			>	ᄡ W						
[2016]33ᄢ		2016.4.13												
2.1.4														
ᄡ ᄢ														
(1)	ᄢ E		ᄡ	HJ2.1-2016										

	Е	1.5	U	3	9
	2.2-2	E			
		E			
~	E			3	E
≠					L

	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO	O ₃	TSP	HCl
					1	2		γ
1			1		γ	Pb		1

Е	1.5	U	3	p
---	-----	---	---	---

		[a] [a,h]	[b] [1,2,3-cd]	[k]		
6		pH			—	—

2.3 Е б №

1 Е
№
HJ2.2-2018 А Т AERSCREEN №
v i v T
ā 2.3-1 Е ∞ u 2.3-2 Т ā
2.3-3~ 2.3-4 i r 2.3-5

2.3-1 Т ā		ū v	
/ '	/		u 3km v p
	o	15.8	v γ 78 v β ū v
/		40.2	ū E v 20 γ
v /		-5.9	
≠			/
v d			v d
γ		γ	L 3 p E
	№ /m	90	τ ~ ā
γ		γ	/
	/km	5.3	
	h /°	10	

2.3-2 Е б	
б	Е б № ∞
	Pmax≥10%
	1%≤Pmax 10%
	Pmax 1%

$\tilde{E}$

$\sqrt{}$

1.5

U

$\tilde{\gamma}$

ρ

2.3-3

E[±] √ 1.5 U ∑ ρ

	√	H ₂ S	0.01	22	10	0.15	0	III
		NH ₃	1.13	22	200	0.57	0	III
			3.12	22	2000	0.16	0	III

* ǎ HJ2.2-2018

$\tilde{E}$	$\downarrow$	1.5	U	$\tilde{J}$	ρ
-------------	--------------	-----	---	-------------	--------

E

5

$\tilde{I}$ $\tilde{I}$ $\downarrow$ ξ

$\hookrightarrow$ 1 E $\tilde{b}$ $\hookrightarrow$ IV $\tilde{I}$ γ

E $\hookrightarrow$ III E $\hookrightarrow$ II E

$\hookrightarrow$ I $\sim$ $\downarrow$ N_0

2.3-7 E $\tilde{b}$ $\frac{7}{8}N_0$

$\hookrightarrow$	$+$			
E $\tilde{b}$				N_0^a
a	E $\tilde{b}$ ρ	$\downarrow$	$\tilde{J}$	$\downarrow$ U
	$\neq$	A		

2.3-8 E $\tilde{b}$ ∞

	$\hookrightarrow \Delta \infty$		$\hookrightarrow \frac{7}{8}N_0$	E
	P	E		
	P3	E2	III	
		E3	II	
		E3	II	

$\hookrightarrow$ VII III E

E $\tilde{I}$ E E

6

$\downarrow$ $\tilde{J}$ $\tilde{J}$

ξ E'' $\downarrow$ $\neq$ $\tilde{I}$ $\tilde{J}$ E

$\uparrow$ HJ964-2018 A $\tilde{J}$ E

$\neq$

β $\tilde{U}$ $\mathcal{M}$ $\mathcal{L}$ $\tilde{I}$ $\mathcal{M}$

$\mathcal{M}$ $\mathcal{M}$ 5hm^2 5.33hm^2 50hm^2

ω τ ρ $\tilde{J}$ E $\uparrow$ —

HJ964-2018 4 $\tilde{J}$ E $\tilde{b}$ $\frac{7}{8}N_0$ $\tilde{J}$ E

$\tilde{b}$

7 $\tilde{J}$ E

β $\tilde{U}$ $\mathcal{M}$ $\neq$ $\circ$

$\mathcal{M}$ $\mathcal{M}$ ρ $\tilde{J}$ E $\uparrow$ —

	ᄡᄢ	ᄡ	1.5 U	ᄡ ᄡ
ᄡ ᄡ	ᄡ No "	ᄡ ᄡ	ᄡ No	
2.4 E				
1	E			
	ᄡ E	ᄡ	HJ2.2-2018	
	ᄡ	ᄡ E	E	ᄡ
	5*5km	ᄡ		
2	E			
	ᄡ E	ᄡ	HJ2.3-2018	
	ᄡ E	B ᄡ	ᄡ	ᄡ ᄡ
	E ᄡ ᄡ	a	L ᄡ	ᄡ ᄡ
ᄡ	ᄡ	E		
3	ᄡ E			
	ᄡ E	ᄡ	HJ610-2016	
	ᄡ E	E	ᄡ	20km ²
ᄡ				
4	E			
	ᄡ	ᄡ	E	
ᄡ E	ᄡ -	HJ2.4-2009	E	ᄡ 200m
ᄡ ᄡ				
5	E			
	E	ᄡ	HJ169-2018	E
	E ᄡ ᄡ	5km	ᄡ ᄡ	E
6	E			
	E	ᄡ E	ᄡ	
HJ964-2018	E	ᄡ	ᄡ ᄡ ᄡ	0.2km
7	E			
	ᄡ E	ᄡ	HJ19-2011	ᄡ ᄡ
ᄡ No	E			

2.5 G

2.5-1 G
 2.5-1 G

	/		ĩ r	β	o m		w
	X	Y					
	299332.8	3337621.3		√	2604	1894	
	/		E	.		√ p	
			.	√	800		
					2150		
	/		—				
	/		√ 200m p Ĝ				3

2.6 w √ 3 i E %

2.6.1 w √ 3

(1)
 β
 √ 3No E √
 w √ 3
 (2)
 w √ w √ 3No 2015
 w √
 √ % GB3838-2002
 r % w √ 3 i r 2.6-1 w √ 3 4
 2.6-1 w √ 3

~	w √ O	w √ O			
366	√	√			

 √ 3No w √ w %

(GB/T14848-2017) No l t g a w

w √
 (3)
 w √ No √ γ T Ũ w
 √ 3 √ 3 w
 √

		$\tilde{E}$	∇	1.5	U	$\tilde{\sigma}$	ρ
(4)“	† ”	No M					
	Ÿ “	† ”	No M		Ł	No M	
		M		$\tilde{U}$ M			† ”H
ZH33060420002							
(5)							
	Ÿ	M	$\tilde{G}$	2017		β ○	Ÿ
M $\dot{\rho}$	$\tilde{I}$	$\tilde{G}$					
2.6.2	E	‰					
2.6.2.1		‰					
1							
			w	M		SO ₂	NO ₂
PM ₁₀	PM _{2.5}		‰	GB3095-2012		‰	$\dot{I}$ r
2.6-2							
		2.6-2			‰		
$\sim$			‰		‰		‰
		$\tilde{U}$ v		v (μg/m ³)			
1	SO ₂						

[illegible]
$$w \quad \eta \frac{7}{8} \quad \bar{u} \quad \eta \quad \eta \quad \rho$$

2.6-3	%	γ β	pH	mg/L
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1		2
2	pH	6-9
3	DO $\geq$	5
4	COD _{Cr} $\leq$	20
5	COD _{Mn} $\leq$	6
6	BOD ₅ $\leq$	4
7	NH ₃ -N $\leq$	1.0
8	γ P $\leq$	0.2
9	$\leq$	0.05
10	$\leq$	0.005
11	$\leq$	0.2
12	γ F ⁻ $\leq$	1.0
13	Cu $\leq$	1.0
14	Zn $\leq$	1.0
15	E E $\leq$	0.05
16	$\leq$	0.05
17	$\leq$	0.0001
18	$\leq$	0.005
19	$\leq$	0.05

(2)

2.6-4

2.6-4	%	GB/T14848-93	pH	mg/L
1				
2	/NTU≤			3
3	pH			6.5~8.5
4	≤			3.0
5	≤			0.2
6	≤			450
7	≤			0.002
8	Cu≤			1.0
9	Zn≤			1.0
10	Pb≤			0.05
11	As≤			0.05
12	Cd≤			0.01
13	r ≤			1000
14	≤			250
15	≤			20
16	≤			0.02
17	≤			250
18	≤			1
19	≤			0.001
20	E E ≤			0.05
21	≤			0.05
22	CFU /mL ≤			100
23	CFU/100mL ≤			3
24	≤			0.3
25	≤			0.1
26	≤			0.2
27	μg/L ≤			700
28	μg/L ≤			10
29	≤			0.01
30	μg/L ≤			60
31	μg/L ≤			2
32	≤			0.02
33	≤			0.3
34	(COD _{Mn} γ O ₂ ≤			3
35	≤			0.05
36	≤			0.08
37	≤			0.5

3

2.6-5

$$\tilde{E} \quad \quad \quad \vee \quad \quad \quad \mathbb{S}^5 \quad \quad \quad U$$

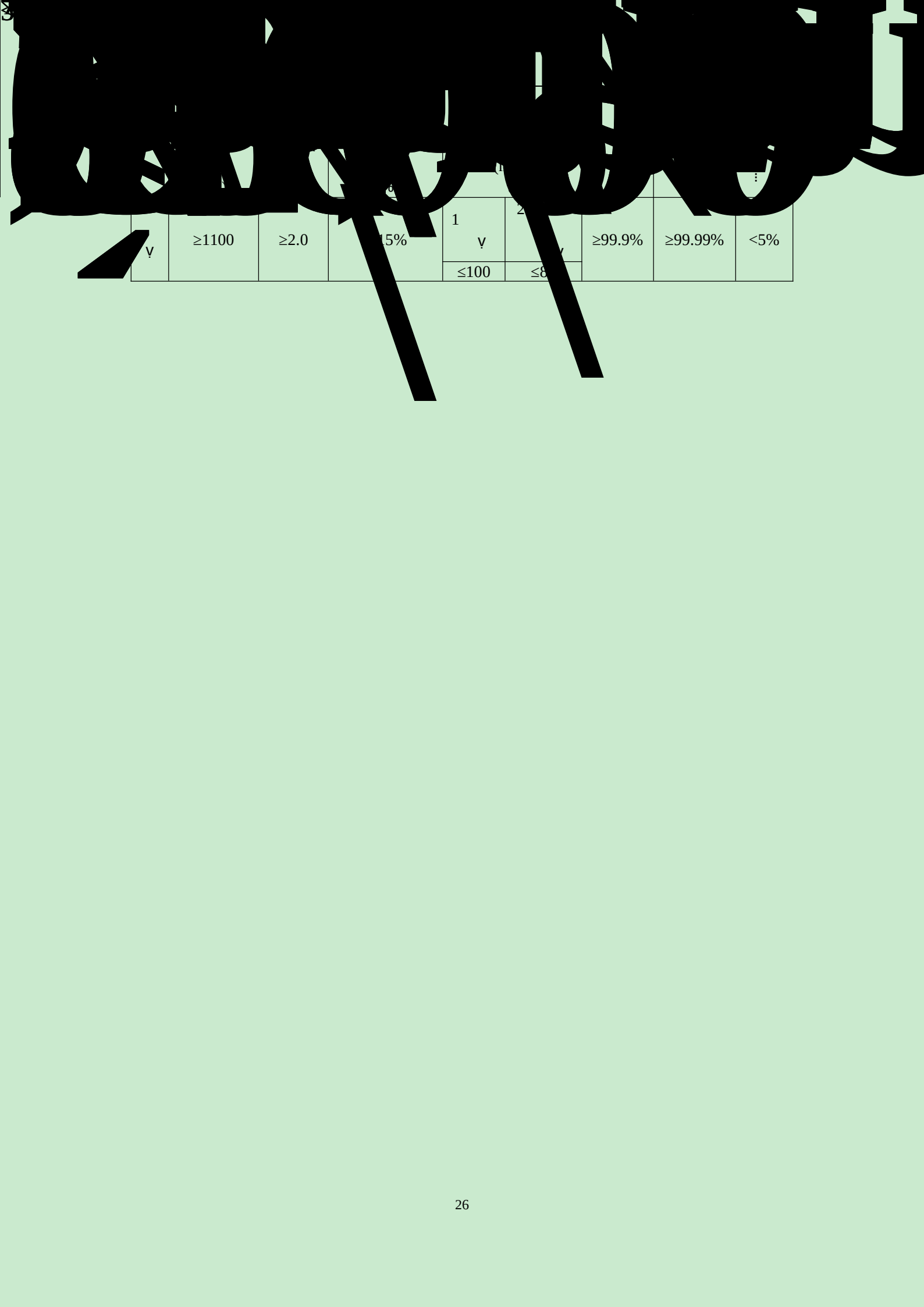
$\tilde{E}$ $\downarrow$

1.5

U

 $\tilde{\mathfrak{z}}$ $\mathfrak{p}$

		Ǝ̃	√	1.5	U	đ	ρ
GB18484-2001	3	√	2022	1	1		‰
3	√	○			z		
2917kg/h			50m	√		L	‰
GB18484-2020	2						
		z			2917kg/h		
50m	√		L	‰	GB18484-2020	≥2500kg/h	
‰	□						ĩ
			γ	ĩ			
↓			U	□			
‰							



 φ	≥ 1100	≥ 2.0	$\geq 15\%$	1	2	$\geq 99.9\%$	$\geq 99.99\%$	$< 5\%$
				φ	φ			
				≤ 100	≤ 8			



≠	√	≠	%	≠	GB5085.1-2007
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项目	单位	标准值	检测结果	判定
1. 外观质量				
1.1 表面平整度	m ²	≤ 2.0	1.8	合格
1.2 表面粗糙度	m ²	≥ 0.5	0.6	合格
1.3 表面颜色		符合设计要求	符合设计要求	合格
2. 力学性能				
2.1 抗压强度	MPa	≥ 10.0	10.5	合格
2.2 抗拉强度	MPa	≥ 3.0	3.2	合格
2.3 抗折强度	MPa	≥ 4.0	4.2	合格
3. 耐久性				
3.1 抗冻性		符合设计要求	符合设计要求	合格
3.2 抗碳化性		符合设计要求	符合设计要求	合格
3.3 抗氯离子渗透性		符合设计要求	符合设计要求	合格

085.3-2007

L GB18597-2001

2.7 $\frac{7}{8}$

2.7.1 $\mathbb{M}_r$ for $r \geq 7/8$

r 7/8 (2006~2020)

$$(1) \quad \frac{\partial \tilde{\omega}}{\partial t} + \tilde{\omega} \frac{\partial \tilde{\omega}}{\partial \tilde{t}} = \frac{\partial^2 \tilde{\omega}}{\partial \tilde{t}^2} \quad (1)$$

(2)	Mo	2010	32.50	2020	42
-----	----	------	-------	------	----

o	2010	117.50	2020	142.00
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2010	62%	2020	75%
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(3) $\frac{7}{8}$ $\forall$ $\frac{7}{8}$ 34 'E 105

44 'E 105

(4) $\vec{U} = \gamma \vec{U}' + \gamma \beta \vec{r}'$ $\vec{U}' = \gamma \vec{U} - \gamma \beta \vec{r}$

$$\forall \quad \frac{7}{8} \qquad \qquad \qquad \forall \quad \bar{0}$$

(5)

VI 7/8 “ ”

c v d

$\tilde{E}$	$\downarrow$	1.5	U	$\tilde{\rho}$
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“ ” $\frac{7}{8}$ $\downarrow \gamma$

γ “ ” γ' $\gamma \xi \gamma$ ρ

γ $\gamma \downarrow$

γ $\xi \gamma$

(6) $\downarrow \tilde{\rho} w N_0 \gamma \frac{7}{8} N_0$

γ $w \gamma N_0$ $\gamma \downarrow$ ($N_0 \gamma$)

γ ($N_0 \gamma$) γ ($N_0 \gamma$) γ ($N_0 \gamma$)

2.7-1 $w N_0 \gamma$

$N_0 \gamma O$	O	w
($N_0 \gamma$)	$\tilde{U} \gamma$	$\tilde{\rho} L$
γ ($N_0 \gamma$)	$\gamma \downarrow$	γ
γ ($N_0 \gamma$)	$\xi \gamma$	$w \dot{X} \gamma$
γ ($N_0 \gamma$)	$\xi \gamma$	$\gamma \tilde{G} \gamma$

$r \frac{7}{8} \tilde{\rho} N_0$ $\tilde{U} \gamma \rho$

$r \frac{7}{8} \frac{7}{8} w \gamma$ $N_0 \gamma$ N_0 $N_0 \gamma w$

$\tilde{\rho} L$ $\tilde{E}$ $\downarrow$

$\circ$ $\tilde{G} \xi$ $\tilde{\rho} \gamma$

$\rho \circ =$ $\downarrow$ $\circ$ γ

$z \tilde{U} \tilde{\rho} L \gamma \tilde{\rho}$ $w \xi \tilde{G} \neq \tilde{G} \xi$

$\gamma \xi \tilde{U}$ $\downarrow$ 1.5 U 70t/d

$\circ$ $\square = \gamma \tilde{\rho}$

$\gamma \rho \tilde{\rho} \downarrow$ $\sim = \tilde{\rho} \downarrow$

$\xi \psi \tilde{U} \neq \square$ $h. \tilde{U}$

$h \circ$ $\gamma \frac{7}{8}$

2.7.2 $\downarrow \neq \frac{7}{8}$ (2019-2022)

()

$\int 2019 \eta \downarrow \neq z 164 U/$

9.7 U/ 16.5 U/ $\downarrow \square$ 20.1 U/ $\neq 116 U/$

$\gamma z 1.7 U/ 55 \downarrow \eta$

$\int \tau \downarrow \neq z$ “ $\downarrow$ $\neq$ ”



Ἐ	ἄ	1.5	U	ἄ	ρ
---	---	-----	---	---	---

” ” “ ” ὀ ὀ ἡ ἄ ἄ

‰ ~ ρ ἡ . ἄ ὃ

ἄ . ἄ ἡ

ἡ ο ~ ‰ ρ ἡ ρ

ἡ . ἄ ο

(3) ⅞

ὃ ἡ ὃ ο ἄ Ἀ

ἡ ἡ ρ ἡ ρ . ἄ

ο ἡ ὀ ὀ ἡ ὀ

(4) ὀ ⅞

ἡ ἡ ρ ἡ ρ ἄ ο

~ ὀ . ἄ ἄ 3 ὀ

ἄ

(5) ⅞

2.7-2 ⅞ ρ

~	O	(ha)	ἄ ρ (%)
1	(M3)	137.06	52.03
2	(S1)	18.29	6.94
3	Ἐ (U2)	80.88	30.71
4	(G)	27.17	10.32
		263.40	100
5	(E1)	10	—
vii		273.40	—

2.7.3.2 vii No

ἄ ⅞ ὀ ⅞ ὀ

ρ ⅞

vi ὀ ἡ ἡ ἰ ἡ L ⅞

2.7.4 ὀ ἡ ἡ ἰ ἡ L ⅞

ὀ ἡ ἡ ἰ ἡ L ⅞ ἄ

ρ ἄ Ἐ L Ḡ ἄ (

⌘[2017]427~) ρ 6

2.7.4.1 ⅞ vii

ἡ ἡ ἰ ἡ ⅞ ἰ ἄ

	Ẽ	√	1.5	U	đ	ø								
ġ	Ṗ	ˆ	No	.	√	o	h	Ų	˜	o	γ			
ᄀ		“	γ	”	o		π	↳	o	ι	˜	η		
γ	Ų	√	⋯	z	r		7/8		ü		β			
⋯														
			,	đ			,	ĩ			,	No		
		L	ġ	Ų	⌋	:		7/8		⋯				
	7/8	Ų		√	w		7/8	No		ġ				
w	Ų	p	√		ġ			7/8	No	r		7/8	Ų	
				ü	Ų		Ų							
7/8	Ų	ĩ	⌌	δ	⋮		7/8		“					
δ		ĩ	ì	Ẽ	”		”	“		No	Ų		δ	Ų
No	”			r		⋯								
7/8	Ų		√		Ẽ		L		√		Ẽ			
	U		L		z	500	U/		L		z	550-600	U/	L
z	˜		7/8	Ų			L		7/8		ĩ		r	⋯
		γ		Ų	7/8		ü		β	ġ			⋯	
		ġ	7/8											
2.7.4.2	7/8		√											
	7/8			√					Ų	√		%o	˜	Đ
√		%o	√	No≠	√	1	√	3	√	5	√	6		

E ^α ↓ 1.5 U ÷ ρ									
↓ 5 %~ ϑ ↓									
М	№	↓	↓				⌋ ↓		
		1 М غ					1 а ⌋ O		⌋ İ
		2 / ج İ	Ü М O	%	‡	1 I	⌋ ð . ⌋ O	2015	1.1 ⌋
		γ İ ش γ γ 0.001ppm	ش γ ð	∫ ء ↓	1	1	2 а ↓ ⌋ O		
							3 ↓ ⌋ ⌋ O	2015	▲ ⌋
%~		3 غ ∫ М O ~ %~					4 ↓ ~ Ñ O	2015	
		4 М	γ	Ü М ρ	5		()		⌋ М %~
		1 4000 U γ "H γ 25.4 U ↓							М ↓
7/8	↓	2 γ							O ~ %~
М		3 ↓					-		
			∫	∫		1:3	1:4		М ↓ O . ↓
		1 İ Ü М L	>8g/L /	>10g/L ↓	%	‡	O		%
		O							7/8 غ β
L .									
%~		-							

E^∞

$\downarrow$

1.5

U

$\downarrow$

ρ

2.7.4.3

z No

(1)

z No

7/8 M ~ ∫ M v . ع

Удмурт Республикасының Җәмһүрияты 2014-2020

L 3721 'E γ $\dot{\rho}$ $\frac{7}{8}$ U 146.8 'E

У	≠	г	7/8	η	α̃	3.9%	№
---	---	---	-----	---	----	------	---

$$\frac{7}{8} \qquad \vee \qquad \vee \qquad \frac{7}{8} \qquad \vee$$
$$\neq 1 \text{ z}$$
$$r = \frac{7}{8} \int \bar{G}$$

(2)

z No

$\frac{7}{8}$	U	$\frac{7}{8}$ M	3.3	m ³ /d	M	No
---------------	---	-----------------	-----	-------------------	---	----

$\bar{U} \quad V$

$$\frac{7}{8} \quad \tilde{G} \quad \subset \quad L \quad h \quad L$$

40 m³/d $\sqrt{B}$ L 2 m³/d $\sqrt{B}$ L

$$r \quad L \quad \tilde{G} \quad 7/8 \quad \sim \quad \tilde{U}$$

28.6 m³ $\approx$ 1 τ_{H}

$$r \quad 7/8 \quad \approx \quad \int \bar{G}$$

(3)

z No

○ √ ○ 60 U

E		1.5		U		3	
v		a		p		r	
r		ψ		~		J	
7/8		U		SO ₂		NO ₂	
7/8		SO ₂		NO ₂		VOCs	
7/8		VOCs		VOCs		VOCs	
U		U		U		U	
7/8		7/8		7/8		7/8	
G		“		”		VOCs	

2.7.4.4 No

↓

2.7-3 ĭ “ ǃ ” No M

[illegible]

	$\tilde{E}$	$\surd$	1.5	U	$\tilde{\mathfrak{z}}$	$\mathfrak{p}$
2.7.6	$\tilde{G}$	$\mathfrak{vii}$	No			
	β			$\tilde{U} \mathfrak{M}$	$\checkmark$	$277^{\sim}$
	$\tilde{G}$	(	$\tilde{U} [2018] 30^{\sim}$	)	$\checkmark$	$\tilde{G} \quad \frac{7}{8} \quad 2017$
			$\tilde{G}$	$\mathfrak{p}$	$\acute{\mathfrak{r}}$	7

3. 'I' No

3.1

3.1.1 ○ 『 』

5

“ ” 200

ü ¼ ¼ ð

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o ¶ ¼ o ¼ o

2016

G E ¼ O

E

¼ E ¼ ¼ No ~ ð

2005 800 “H ¼ 3600 U

2009 5400t/a ¼

¼ o 2016

¼ G ¼

¼ 5400t/a ¼ Å

= ¼ ¼ ¼ ¼ ¼

¼ i j k o ü

E ¼ ¼ 1.5 U

ü ¼ ð 80 70 U/ ¼ ß

ü ¼ ¼ ¼ 2019 9 ¼

“ ” ¶

[illegible]

3.1.3

○ í r , 3.1-2

3.1-2 ○ í r ,

O			G	
ĩ E [~] r	3600t/a	2005 1 71 [~]	2006 032 [~]	2016
ĩ E [~] ↓ 900 0 U	3600t/a 5400t/a z 9000t/a	2009 2 6 [~]	2013 116 [~]	2018 10 Å
1500 U	1500 U ↓ 3900 U z 5400t/a	2018 5 0 [~]		2018 10 Å
1.5 ↓ U	1.8 U ĩ ↓ 1.5 U γ ĩ 300 0 U	2018 1 49 [~]	2020 33 [~] ĩ φ 2020 8 o	
E [~] ↓ 1.5 U ĩ	/	/	2020 8 25	

3.1.4

○ ↓ ~ ~ 3306000196 ○ ~

3.1-3

3.1-3 ○ ↓

~	≠	¶
1	¶ HW02	271-001-02~271-005-02 272-001-02~272-005-02 275-004-02 ~275-008-02 276-001-02~276-005-02
2	' (HW04)	263-008-04~263-012-04
3	¶ ĩ ¶ (HW06)	900-402-06 900-403-06 900-404-06 900-406-06 900-408-06 900-410-06
4	ĩ HW08	251-001-08~251-006-08 251-010-08~251-012-08 900-199-08 900-200-08 900-201-08 900-203-08 900-204-08 900-205-08 900-209-08~900-222-08 900-249-08
5	/ / HW09	900-005-09~900-007-09
6	H W11	251-013-11 252-001-11~252-016-11 450-001-11~450-003-11 261-007-11~261-016-11 261-019-11~261-027-11 261-029-11

	$E^{\sim}$	$\sim$	1.5	U	$\sim$	ρ
14		HW49		900-041-49		6.54
	' $\sim$	HW08		≤ 49		
15						

	ᐃᐃ	ᐃ	1.5 U	ᐃ ᐃ
		HW02	271-001-02	30.5
37	ᐃ	HW49	900-041-49	7.32
		HW11	900-013-11	192.16
		HW49	900-041-49	1.98
		HW12	900-252-12	4.74
38	ᐃ ᐃ	HW49	900-041-49	1.03
		HW09	900-006-09	4.7
		HW49	900-041-49	0.98
39		HW49	900-041-49	0.02
		HW06	900-404-06	3.8
40	ᐃ	HW49	900-039-49	0.24
		HW49	900-041-49	0.76
		HW11	900-013-11	211.42
41	ᐃ	HW12	264-012-12	61.54
		HW49	900-041-49	13.78
42	ᐃ	HW49	900-047-49	0.06
43	ᐃ ᐃ	HW12	900-252-12	1.82
44		HW11	900-013-11	8.02
45	ᐃ	HW49	900-041-49	1.72
46		HW12	900-252-12	5.28
	ᐃ	HW49	900-041-49	1.08
47	ᐃ	HW09	900-007-09	22.15
		HW49	900-041-49	1.28
		HW06	900-403-06	5.86
48	ᐃ	HW49	900-041-49	1.76
		HW08	900-249-08	6.3
49		HW12	900-252-12	10.24
50	ᐃ		271-005-02	589.68
51	ᐃ	HW49	900-041-49	4.04
		HW49	900-039-49	19.88
		HW11	900-013-11	17.6
52		HW49	900-041-49	27.24
		HW49	900-041-49	0.46
53			900-047-49	1.84
54		HW13	900-014-13	0.04
	ᐃ			
55				

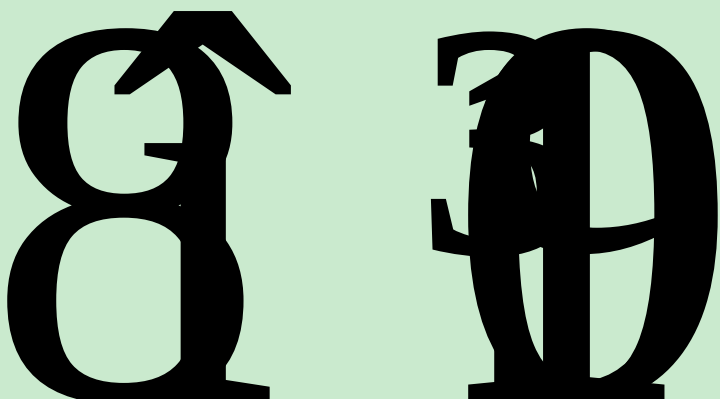
		HW49	900-041-49	0.05
61		HW08	900-210-08	4.84
62		HW49	900-041-49	3.2
63	↑ 3 p'	HW49	900-041-49	3.62
		HW08	900-210-08	4.59
		HW08	900-249-08	0.06
		HW13	900-014-13	4.62
64		HW11	900-013-11	128.44
65		HW12	900-252-12	49.22
		HW12	900-252-12	84.08
66		HW04	263-010-04	12.96
		HW04	263-011-04	34.76
		HW04	263-008-04	101.02
67		HW12	900-252-12	9.2
68	1	HW49	900-041-49	1.44
		HW12	900-252-12	2
		HW12	264-012-12	0.5
69	r		900-047-49	0.24
70		HW49	900-041-49	4.48
		HW49	900-041-49	0.14
		HW49	900-041-49	3.2
		HW12	900-252-12	4.12
		HW12	900-252-12	4.38
71		HW49	900-041-49	1.12
		HW12	900-252-12	0.79
72	⊕ J	HW09	900-006-09	2.2
73		HW49	900-041-49	30.06
	r	HW02	271-001-02	1.78
		HW11	900-013-11	75.36
74		HW49	900-041-49	2.84
		HW12	900-252-12	30.04
75		HW49	900-041-49	0.94
76	ĩ	HW12	900-252-12	9.54
		HW49	900-041-49	1
	ρ	HW49	900-041-49	129 2
79		HW12	900-252-12	0.28
80		HW11	900-013-11	82582
		HW08	900-249-08	1.48
	3	κW49	900-041-49	D
		κW49	900-039-49	v.96
			900-047-49	D.9
81	ĩ r	HW02	272-002-02	4.34
		HW49	900-041-49	0.26
		HW02	272-001-02	0.23
82		HW49	900-041-49	3.24
83		HW13	264-101-13	15.34
		HW49	900-041-49	3.14
		HW13	265-104-13	6.24

$$\tilde{E} \quad \sim \quad 1.5 \quad U$$

	$\tilde{E}$	$\downarrow$	1.5	U	$\downarrow$	ρ
		HW49		900-041-49		0.53
110		HW12		900-252-12		6.22
		HW49		900-041-49		2.28
		HW49		900-041-49		2.62
111		HW12		264-013-12		14.56
		HW06		900-406-06		9.02
112		HW12		264-012-12		6.32
		HW49		900-041-49		1.2
113						



	ٲ	ٲ	ٲ	ٲ
	ٲ	ٲ	ٲ	ٲ
	ٲ	HW49	900-041-49	0.08
	ٲ	HW49	900-041-49	2.04
	ٲ	HW49	900-041-49	1.5
132	ٲ	HW08	900-210-08	6.42
	ٲ	HW12	900-252-12	4.84
	ٲ	HW49	900-041-49	2.56
133	ٲ	HW49	900-041-49	1.9
	ٲ	HW12	900-252-12	13.26
134	ٲ	HW12	900-252-12	9.2
	ٲ	HW13	900-016-13	1.38
135	ٲ	HW13	900-014-13	0.92
	ٲ	HW49	900-041-49	0.86
136	ٲ	HW02	271-002-02	47.45
	ٲ	HW49	900-041-49	1.34
137	ٲ	HW13	900-014-13	4.02
	ٲ	HW49	900-041-49	0.7
	ٲ	HW49	900-041-49	0.18
138	ٲ	HW09	900-006-09	2.93
	ٲ	HW49	900-039-49	0.76
139	ٲ	HW12	900-252-12	0.3
	ٲ	HW49	900-041-49	0.12
140	ٲ	HW49	900-041-49	4.56
141	ٲ	HW02	271-004-02	11.36
	ٲ	HW08	900-214-08	0.66
142	ٲ	HW08	900-249-08	1.05
	ٲ	HW09	900-007-09	1.98
	ٲ	HW49	900-041-49	0.1
143	ٲ	HW13	900-014-13	15.64
144	ٲ	HW04	263-008-04	85.08
	ٲ	HW49	900-041-49	2.04
145	ٲ	HW49	900-041-49	0.63
146	ٲ	HW49	900-041-49	0.007
147	ٲ	HW08	900-218-08	08



154		HW12	264-011-12	17.78
		HW49	900-041-49	0.26
	ع	HW49	900-041-49	1.92
155		HW08	900-210-08	2.46
	ر	HW49	900-041-49	1.52
156		HW12	900-299-12	6.18
		HW49	900-041-49	15.92
		HW12	900-299-12	52.66
157		HW08	900-203-08	1.02
		HW49	900-041-49	0.04
158		HW49	900-041-49	4.64
		HW12	900-252-12	5
159	ر	HW49	900-041-49	0.26
160		HW12	900-252-12	1.9
161	ر ع	HW49	900-041-49	35.92
		HW08	900-249-08	5.56
		HW08	900-217-08	9.4
		HW13	900-016-13	29.46
		HW08	900-210-08	8.57
		HW12	900-299-12	21
		HW12	900-256-12	26.06
		HW09	900-007-09	10.62
162	ر	HW49	900-041-49	1.62
163		HW49	900-041-49	12.18
164		HW49	900-041-49	2.84
165		HW12	900-252-12	10.34
		HW49	900-047-49	1.98
		HW49	900-041-49	0.58
	ر	HW49	900-041-49	43.14
166	ر	HW49	900-041-49	0.44
167	ر	HW49	900-041-49	0.72
168	ر	HW49	900-041-49	10.26
169		HW49	900-041-49	3.98
170	ر	HW49	900-041-49	0.12
	ر	HW49	900-041-49	1.28
171	ر	HW49	900-041-49	0.6
172	ر	HW49	900-041-49	0.06
173	ر	HW49	900-041-49	0.5
174	ر	HW49	900-041-49	2.04
175		HW49	900-047-49	0.02



$$E \sim \sqrt{1.5 U}$$

$\dot{\rho}$ $\dot{\bar{t}}$ $\ddot{u}$ $\mathbb{N}$ $\mathbb{N}$ $\neg \chi$ p $\sim$
 $\dot{\rho}$ $\mathbb{N}$ U $\mathbb{F}$

4. Γ $\dot{\Gamma}$
я $\mathbb{F}$

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4. **Αλγόριθμοι**

	Ǝ̃	√	1.5	U	Ɔ	ρ
					D ~ π	′
	HCl	NO _x	CO	SO ₂	O ₂	NH ₃
1 z	ρ	ǎ			L	L
5.						′
			′	√	γ ǐ	No
	√	U		√		
	„H					′
ǐ		U	√		Ũ	√ β

3.2.2

ǐ 1

√ γ ǐ 1

3.2-1 γ ǐ 3.2-2

~	O	3.2-2	√ β	√	~
()	√H				
1	E E#92	1	∞		√
2		1	∞		
3	1	1	∞		
4		1	∞		
5	1	1	∞		
6		1			
()	↑	√H			
1	′	1	∞		
2	√	1	∞	′	Φ500mmx500mm
3	′	1	∞		
4	′	1	∞		
5	′	1	∞		
	√H				
1		1	∞		100t/d Φ4200×16000
2	√	1	∞	r √	1m ³ /h
	√H				
1		1	∞	r Φ4500	10m
2	√	1	∞	r √	1m ³ /h
3		1	∞		
4		1			

$\tilde{E}$ $\downarrow$

1.5

U

 $\tilde{\mathfrak{z}}$ $\mathfrak{p}$

		E	√	1.5	U	3	p
4		1	≈				
5	T	1	≈				
6		1	≈			3~5t/h	
7		1	≈				
8		1	≈		RCYD-6T3 304		
9		1	≈				
10	,	1	≈				
11		1	≈				
E							
1	ψ	1	≈			↓	
2		1	≈			78301m ³ /h,	
			↑				
()	Ū ĩ						
	ı H						
1	τ	1	≈				

$$\begin{array}{ccccccc}
 & & \tilde{E} & \downarrow & 1.5 & U & \tilde{\rho} \\
 \hline
 & & & & & \mathcal{G} & 2 U / \\
 \mathcal{M} & & & & & & \mathbb{S}^2
 \end{array}$$

E ²										↓										1.5										U										3										p																													
No										i										C										r										γ										3																													
																																																		ĩ																													
r										SO ₂										NO _x										HF										HCl																																							
.										()										↓																														C																													
.										ξ																				↓																				η																													
										H																				p																				ρ										↓										N									
H										η																														No																				ξ																			
(PCDD) ĩ										σ ^s (PCDF)																																								(PAHs)																													
No																																																																															
o																																								257										24h																													
97.1%~98.6%																				N ₂																																																											
																																								~o										1.057×10 ⁴																													
mg/m ³										No										28.75mg/m ³										~o										2.14×10 ⁴ m ³ /h										No																													
o										2.27×10 ⁴ m ³ /h																																								226kg/h																													
1393.97t/a																				0.658kg/h																				4.059t/a																																							
SO ₂																														~o										SO ₂										2445mg/																													
m ³										No										SO ₂										3mg/m ³										~o										2.14×10 ⁴ m ³ /h										No																			
										2.27×10 ⁴ m ³ /h																				SO ₂										52.3kg/h																																							
2322.58t/a																				0.034kg/h																				0.209t/a																																							
NO _x																														~o										NO _x										283.5m																													
g/m ³										No										NO _x										152.5mg/m ³										~o										2.14×10 ⁴ m ³ /h										No																			
										2.27×10 ⁴ m ³ /h																				NO _x										6.095kg/h																																							
37.59t/a																				3.47kg/h																				21.40t/a																																							
HF																														No										HF										1.08mg/m ³																													
~o										2.14×10 ⁴ m ³ /h										No																				2.27×10 ⁴ m ³ /h																																							
										HF										0.0215kg/h																				0.133t/a																																							

2.27×10⁴m³/h CO 20.46kg/h
126.20t/a 0.21kg/h 1.30t/a
, 3.2-4

3.2-5

~		t/a	kg/h	t/a
1		1166	0.658	4.059
2	SO ₂	269.87	0.034	0.209
3	NO _x	269.87	0.034	21.40
4	HF	/	0.0215	0.133
5	HCl	10.68	0.04	0.25
6		/	8.158×10 ⁻⁷ (gTEQ/h)	5.03×10 ⁻³ (gTEQ/a)
7	Pb	/	4.31×10 ⁻⁶	2.66×10 ⁻⁵
8	As	/	6.13×10 ⁻⁴	3.78×10 ⁻³
9	Cd	/	2.15×10 ⁻⁷	1.32×10 ⁻⁶
10	Hg	/	1.80×10 ⁻⁴	1.11×10 ⁻³
11	Cr	/	1.19×10 ⁻³	7.35×10 ⁻³
12	Cr+Sn+Sb+Cu+Mn+Ni	/	0.0017	1.05×10 ⁻³
13	CO	105.58	0.21	1.30

2 ↓

↓

p

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257d 24h/d

↓

3.2-5

3.2-6

↓

~		kg/h	t/a
1		0.1325	0.8173
2		0.2525	1.5574
3		0.441	2.7201
4		0.15	0.9252

3 ↓

↓

p

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257d 24h/d

↓

3.2-6

3.2-7

↓

~		kg/h	t/a
1		0.035	0.2159
2		0.0041	0.0253
3		0.0235	0.1449
4		0.00215	0.0133
5		0.0240	0.1480
6			

	$\tilde{E}$	$\sqrt{}$	1.5	U	$\tilde{\gamma}$	ρ
3.3	L	$\tilde{I}$				,
3.3.1	$\tilde{I}$					,
	$\tilde{E}$	$\sqrt{}$	1.5	U		
$\sqrt{}$	$\sqrt{}$					$\tilde{\gamma}$
	$\tilde{I}$	$\sqrt{}$	$\tilde{U}$	$\tilde{U}$	γ	$\tilde{I}$
	1	$\sqrt{}$				
	$\sqrt{}$		$\sqrt{}$			
	$\tilde{C}$					

“E”	√	1.5	U	3	p
-----	---	-----	---	---	---

○ 2020 7 1 ~12 31 √
, 3.3-1

3.3-2 √

	SO ₂ (mg/m ³)	NO ₂ (mg/m ³)	(mg/m ³)	CO (mg/m ³)	HCl (mg/m ³)
√	1.16	85.95	4.35	12.95	1.46
% √	200	240	65	80	60
,					

~ ○ √ ƒo √

L % GB18484-2001 √
√ β L √ √ p ~

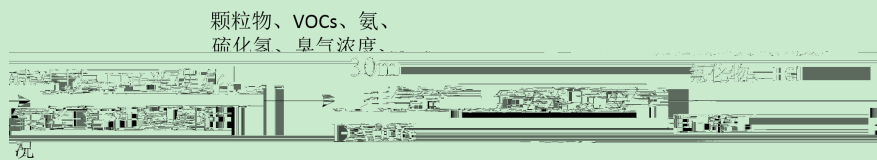
A2200155595102 ∴ , 3.3-2

3.3-3 ∴ ,

	%	∴ %	√ %	
2020 6 18	4.8	5		15000t/a √

√ β L ∴ √

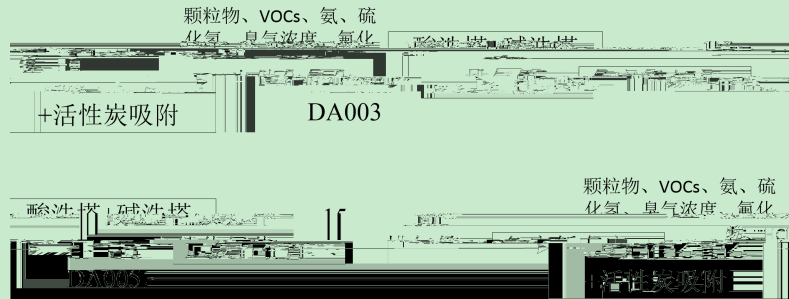
2 √ Ğ
√ ∥ , ∽
γ ĭ o
ρ ~ Ĝ ρ 1 ∴
□ γ
γ Ā a “ 1 +
√ ρ + NaOH +UV ặ ÿ . + ρ ” [. U
30m



3.3-2

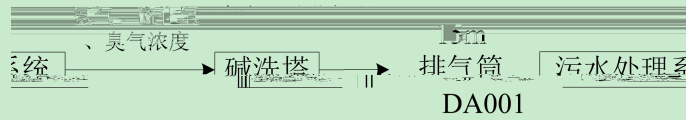
√ √ № √ √
η Ũ √ ũ b
γ ∴ Ũ ρ √ № 1

$O_4 + NaOH + UV \rightarrow H_2S$



3.3-3

15m



3.3-4

3

	$\tilde{E}$	$\downarrow$	1.5	U	$\tilde{\gamma}$	ρ
$\tilde{A}$	$\tilde{k}$					

DT、CR、第

3.3-7

2

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 U ~

U ȳ ȳ
 v ~ ȳ ȳ

ĩ ȳ No ȳ ĩ Δ ȳ COD U ~

ȳ ȳ
 No ȳ COD ȳ 'P ȳ

~ ≠ ȳ ~ ȳ U ~

ȳ
 E~ ȳ ĩ ȳ ȳ

ȳ 2015[251] ȳ

ȳ pH COD_{Cr} NH₃-N

ĩ No

E~ 2020 ȳ 3.3-3

3.3-4

	TOC(mg/L)	COD(mg/L)	pH	NH ₃ -N(mg/L)
ȳ	65	130	6.38	13.6
% ȳ	/	500	6~9	35
,	/			

ȳ ȳ ȳ ȳ
U~ ȳ ȳ ȳ

%

3 1 1 U

No No L Δ b ~
U b



3.3-8 1 1 U

3.3.3 i ,

U 1 1
W No 1 1 W'E 1 No
... ã Ð Y ≠ ' No
≠ U : i P ... D 1
: U ' 1 1 1
... . ≠ . : 1 3
1 1 U , 'E E
~ 1 1 3.3-4

3.3-5 1 1 U

		Leq dB A	y
1# 1 1 1 u	2020-08-19 13:14:16	61.5	65
	2020-08-19 22:09:06	53.4	55
2# 1 1 u	2020-08-19 13:22:07	62.0	65
	2020-08-19 22:16:02	53.1	55
3# 1 1 u	2020-08-19 13:32:39	60.8	65
	2020-08-19 22:23:08	54.1	55
4# 1 1 u	2020-08-19 13:44:52	61.1	65
	2020-08-19 22:34:50	52.9	55

~ 1 1 U [%

3.3.4 i ,

k i
Y i
~
i φ 1 1 p U U
' 3.3-5

		Э	√	1.5	U	3	ρ
		3.3-6	√			,	
~		√	√	√	β	√	z
		O	≠	η			u
1		HW18	772-003-18			1000t	1
	τ				600m ²		
		HW18	772-003-18			100t	1
2		HW49	772-003-18			20t	1
		HW49	772-003-18	"6			

o

,

	$E^{\sim}$	$\downarrow$	1.5	U	$\downarrow$	ρ
$\tilde{I}$	$\downarrow$	3000 U	1.5	U ξ	$\downarrow$	$\tilde{I}$
	$\downarrow$	ρ	$\downarrow$	$\tilde{H}$	$\downarrow$	$\tilde{I}$
	$\downarrow$			$\downarrow$	$\downarrow$	
HW02				HW04		
	$\downarrow$	ρ		$\downarrow$		
HW06				$\downarrow$		
HW08	()/					
HW09	()					
HW11	()			HW12		
				HW13		

$$\begin{array}{ccccccc} & & \tilde{E} & & \downarrow & & 1.5 & U & & & & \tilde{\gamma} & \rho \end{array}$$

$$\begin{array}{ccccccc} & & \downarrow & & & & \tilde{G} & \eta \end{array}$$

3.5.1

$$\begin{array}{ccccccc} \circ & & \tilde{G} & & \int \beta & & N_0 & \circ & & \gamma \end{array}$$

3.5.2

$$\begin{array}{ccccccc} & & \circ & & N_0 & & \gamma \tilde{I} \\ N_0 & & N_0 & & \neq & & \end{array}$$

$\tilde{E}$	$\downarrow$	1.5	U	β
-------------	--------------	-----	---	---------

4 ' Ĩ No

4.1

$\tilde{E}$ $\downarrow$ 1.5 U β

$\tilde{U}$ $\mathcal{M}$ $\mathcal{M}$ $\rho \neq$

Γ . r r $\mathcal{V}$ $\downarrow$

1.5 U/ 70t/d $\downarrow$ $\mathcal{Z}$ $\downarrow$

$\dot{i}$ ρ 6.4t/a $\downarrow$ □ $\mathfrak{b}$ 2019

$\downarrow$ 1.5 U 2018 149[°] “3000t/a

“ ” 1000t/a $\mathcal{C}$

$\sim$ φ

φ $\mathcal{L}$ $\tilde{U}$ $\mathcal{M}$ $\mathcal{T}$ $\mathfrak{m}$

100t/d $\mathcal{E}$ 50t/d $\mathcal{L}$ +

4.1.1

1 O $\tilde{E}$ $\downarrow$ 1.5 U

2 $\mathcal{V}$ β $\tilde{E}$

3

4 $\tilde{U}$ $\mathcal{M}$ $\mathfrak{I}$ 277[°]

5 $\mathcal{H}$ $\mathcal{M}$ ρ $\downarrow$ $\sim$ $\mathfrak{H}$

$\mathfrak{I}$

6 8000 $\mathfrak{H}$

7 $\mathcal{V}$ $\tilde{E}$ $\mathcal{M}$ $\mathcal{M}$ 80 ρ

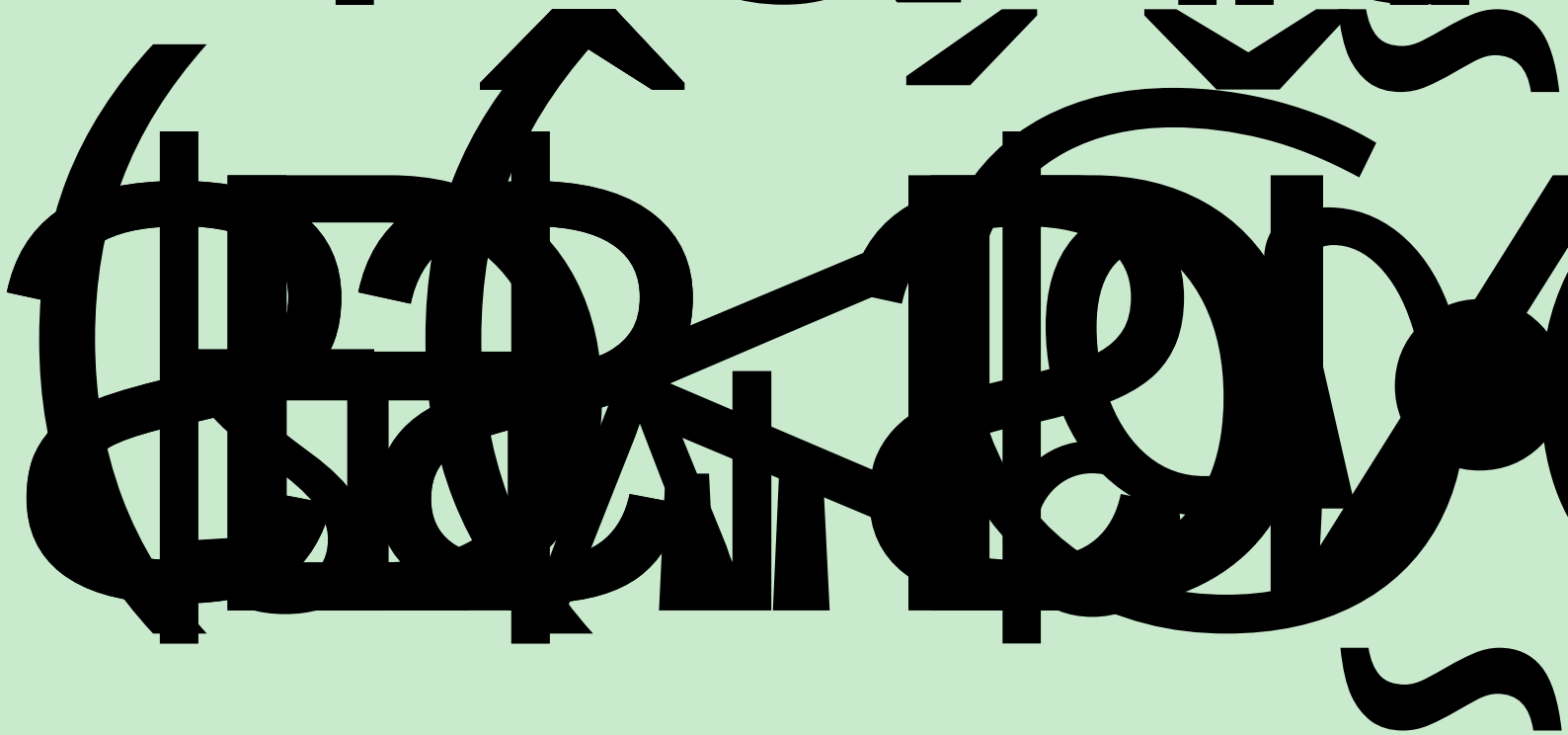
8 $\mathcal{I}$ 2 40

9 $\mathfrak{b}$ $\downarrow$ 215 24

“ 5160 □ $\acute{k}$ $\acute{k}$ $\mathring{A}$ 20 30 $\mathfrak{C}$

4.1.2

$\mathcal{M}$ $\mathfrak{I}$ $\mathcal{C}$ $\downarrow$



E										1.5 U		3 p	
4.1-1										1		1	
,										1		t/a	
1	g	O		/	10	/	2400	1	80		pH1-2		
2	≠		1	/	12.8	2.8	3634	200L		200			
			2	/	17.23	/	3200						
3	z	r		η									

2

\



		E ^x		1.5 U		đ p	

	ˆE˜	√	1.5	U	ˆ	ρ	
				4.1-2	√	√	√
	ˆ	√	β	ˆ	U/	ˆ	ˆ
	1	ˆE˜	3306000196	15000	HW02	HW04	HW06
					HW09	HW11	HW12
							HW13
							HW49

FW15

[illegible]

	E [~]		√	1.5	U		đ	p
	Đ	√				√ □		√ □
	Đ		γ		√ □	r	G	
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	M Đ	√		14431t/a	ĩ	Đ	8.5%	Đ
16%		_F	M	ĩ		Đ	√	
o	M		Ġ	√ □	z	Đ	√	
					E [~]	v Đ	√	
z 15000 U/			Đ	√				

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					263-002-04		
					263-003-04		
					263-004-04		
					263-005-04		
					263-006-04		
HW04			L		263-007-04		
					263-008-04		
					263-009-04		
					263-010-04		
					263-011-04		
					263-012-04		
					900-003-04		
					201-001-05		
			ṽ		201-002-05		
HW05	ṽ				201-003-05		
					266-001-05		
			ṽ L		266-002-05		
					266-003-05		
					900-004-05		
					900-401-06		
					900-405		
HW06	ṽ						
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		900-215-08	
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		900-220-08	
		900-221-08	
		900-222-08	
		900-249-08	
		900-005-09	
HW09 /		900-006-09	
		900-007-09	
HW11	ج	251-013-11	
		252-001-11	
		252-002-11	
		252-003-11	
		252-004-11	
		252-005-11	
		252-006-11	
		252-007-11	
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		252-012-11	
		252-013-11	
		252-016-11	
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		450-003-11	
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		261-136-11	
	,	321-001-11	
		772-001-11	

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		900-013-11	
HW12	3 3 L i	264-002-12	
		264-003-12	
		264-004-12	
		264-005-12	
		264-006-12	
		264-007-12	
		264-008-12	
		264-009-12	
		264-010-12	
		264-011-12	
		264-012-12	
		264-013-12	
		900-250-12	
		900-251-12	
		900-252-12	
		900-253-12	
		900-254-12	
		900-255-12	
		900-256-12	
		900-299-12	
HW14		900-017-14	
HW16 3	3 L	266-010-16	
HW17	3 i	336-050-17	
		336-051-17	
		336-052-17	
		336-053-17	
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		336-062-17	
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		336-064-17	
		336-066-17	
		336-067-17	
		336-068-17	
		336-069-17	
		336-100-17	
		336-101-17	
HW18		772-003-18	
HW34		900-349-34	
HW35		900-399-35	
HW37	3 L	261-061-37	

HW39 8

HW39 1 L

HW39 261-066-38

HW39 900-038-38

HW39 261-067-38

HW39 261-068-38

HW39 261-069-38

HW39 261-140-38

HW39 261-070-39

HW39 261-071-39

HW39 8

HW39 1 L

		261-166-50	
		261-167-50	
		261-168-50	
		261-169-50	
		261-170-50	
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		261-181-50	
		261-182-50	
		261-183-50	
	Л	263-013-50	
	Л	271-006-50	
	Л	275-009-50	
	Л	276-006-50	
		900-048-50	

4.1.4 М

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№ 97

№ 98

№ 99

№ 100

4.1-4		№№									
kg/m³	Kcal/kg	%)									
		C	H	O	N	S	Cl	F	и	и	
850-1000	4100	30-40	~5	~5	~2	~2	~4.5	~5	~0.5	~20	20~30

4.1-5 Μ ο ν ΝεΝε										
~	Εξ Ο	Ni ppm	Zn ppm	Cu ppm	Cr ppm	Ag ppm	Cd ppm	Pd ppm	As ppb	Hg ppb
1	ξ	0.6155	1.2482	≠	≠	≠	≠	0.791	0.89	<0.2
2		≠	0.01	≠	≠	0.36	≠	≠	≠	<0.2
3		≠	≠	0.7495	≠	0.9345	≠	≠	0.0091	<0.2
4		≠	≠	≠	≠	0.7635	≠	≠	≠	<0.2
5	ν	0.1366	0.2095	≠	≠	≠	0.0802	≠	0.0011	<0.2
6		0.1926	0.218	≠	0.7608	0.44198	≠	≠	≠	<0.2
7	≠	0.1366	7.2575	≠	≠	≠	≠	0.1126	≠	<0.2
8		0.2705	0.3915	≠	1.7375	≠	≠	0.1124	0.0556	<0.2
9	ξ	≠	1.024	0.6220	≠	0.7635	≠	≠	0.0448	<0.2
10		0.1366	0.2095	≠	≠	≠	0.0802	≠	≠	<0.2
11	= ϖ	0.406	≠	≠	≠	≠	0.1164	≠	0.0934	<0.2
12		0.0376	1.7523	≠	1.8977	0.4436	≠	≠	0.011	<0.2
13		0.2214	≠	0.2247	≠	≠	0.1300	0.2512	≠	<0.2
14		0.1138	≠	0.1123	≠	≠	≠	≠	≠	<0.2
15		0.6900	0.8815	0.2435	2.3580	1.8250	≠	≠	0.0240	<0.2
16	,	≠	≠	0.1300	0.6415	≠	≠	≠	≠	<0.2
17		0.0340	≠	0.1500	≠	≠	≠	0.1127	0.089	<0.2
18		≠	0.0500	≠	0.1127	≠	≠	≠	0.007	<0.2
19	Η	1.3195	0.2075	≠	1.7375	≠	≠	0.1312	0.0170	<0.2
20		0.05	0.24	≠	≠	≠	≠	≠	0.11	<0.2

			$\tilde{E}$	$\downarrow$	1.5	U		$\tilde{z}$	ρ
	$\downarrow$		$\parallel$	$\supset$	$\downarrow$	$\downarrow$	$\sim$	γ	γ
	$\square$	γ	$\mathcal{C}$	$\mathcal{C}$	γ	$\square$	$\sim$	r	
	η	$\downarrow$	$\tilde{E}$	$\sim$	$\sim$	$\supset$	a	$\sim$	
	$\mathcal{C}$	$\sim$	$\bar{G}$						
4.1.5			$\dot{\rho}$						
			4.1-6						
			4.1-6						
	O			$\downarrow$	1.5	U	$\tilde{E}$		
	γ	β							
					8000	$\mathcal{H}$			
				15000t/a		70t/d		215d	$\downarrow$
				100t/d					
	r		$\mathcal{E}$	50t/d	$\cdot$	$+$	$\cdot$	$\mathcal{L}$	$\check{i}$
			τ	γ	$\downarrow$	4	$\tilde{U}$	r	$\downarrow$
			$\square$	$\mathcal{V}$	1000t/a	$\cdot$			
			ω		W'E				
		No	ω	$\dot{k}$	$\cdot$	$\dot{i}$			γ
$\uparrow$	$\uparrow$		ω	$\mathcal{X}$	$\cdot$				
			$\sim$	2	$\sim$	$\downarrow$	$\tilde{U}$	$\mathcal{Z}$	3000t
									$\$_{\sim}$

$\tilde{E}$	$\downarrow$	1.5	U	$\tilde{\rho}$
-------------	--------------	-----	---	----------------

β $\gamma \tilde{I}$ $\cdot$
 $\tilde{U}$ $\varphi \beta$ $\gamma \tilde{I}$
 U $\cdot$ γ

2. $\tilde{U} \gamma$

$\tilde{U} \gamma \cdot \downarrow \tilde{U} r \downarrow \xi \wedge \tilde{U}$
 $\tilde{U} \dot{I} \downarrow \top \beta \cdot \cup$
 $\top \beta \wedge \gamma \dot{\rho} \gamma \cup \top \downarrow 730.51m^2 \exists \wedge \gamma \dot{\rho} \gamma \cup$

4 $\tilde{U} \downarrow 362.7m^2$

3. $\uparrow \gamma$

$\uparrow \gamma \cdot \tilde{I} \cdot \dot{I} \varphi \cup \uparrow$
 $\beta \cdot$

$\dot{I} \top \xi \dot{I} w$

$\downarrow 368.64m^2$

4. $W^E \gamma$

$\cup W^E \gamma \tilde{I} \beta \wedge \gamma \gamma \beta \xi$

$\gamma N_0 \gamma$

9 $\dot{\rho}$ 10

4.1.7 "

1. L

$\wedge \gamma L \tilde{U} \gamma L \sim \wedge \gamma \dot{\rho}$

$\dot{I} \sim N_0 \wedge \gamma \dot{\gamma}$

2.

1

$\wedge \gamma L \gamma \wedge \dot{\rho}$

2

$\tilde{I} \gamma \dot{\rho} \tilde{U} N_0 r L$
 $\wedge \gamma \cdot L \parallel$
 $\downarrow \cdot \top \rightarrow \Delta$

$\tilde{E}$ $\sqrt{}$ 1.5 U $\tilde{J}$

$$\tilde{E} \quad \quad \quad \vee \quad \quad \quad 1.5 \quad \quad \quad U \quad \quad \quad \tilde{J}$$

	Ḑ	ḑ	1.5	U	ḑ	ḑ
6. ḑ	ḑ					
		ḑ ḑ	2	ḑ	ḑ	ḑ
ḑ	ḑ	ḑ				
	ḑ ḑ ḑ	ḑ	ḑ	2		
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	U	ḑ	ḑ ḑ	ḑ ḑ ḑ	ḑ	
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4.2.1.3 ḑ						
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4.2.1.4 ḑ						
1.						
1	ḑ	ḑ	ḑ	ḑ	ḑ	ḑ
		ḑ	ḑ	ḑ	ḑ	ḑ
2	ḑ	ḑ				ḑ

[2005] 9ˆ JT617 γ ı̇ JT618

3 √ . ċ √ . ċ η ɖ ʀ

4 γ β √ √ ´ GB18597 A

5 √ ˆE GB13392

6 √ √

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√ ▲

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2.

1 √ ů ˆE γ β

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2

3 □ ů □ Ğ

▲ ċ ů ´ ı̇ √

ũ . ı̇ √

ũ ı̇ ɭ ψ √ √

4 √ ʌ ı̇

3.

√ Ğ ʀ

r ʌ ɖ γ Ġ

Ωˆ Å ´ √ ψ

Ġ L ı̇ ´

≈ ı̇ GPS η β

2 2 □ ı̇

Ğ k || Å ʌ ɖ

E^x	$\sqrt{1.5}$	U	$\frac{1}{2}$	ρ
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4.2.2 $\nabla \neq$

TABLE 1

$$\sqrt{} \qquad \sim \qquad \forall \qquad \sqrt{} \qquad \gamma \qquad W$$

ᠪᠣᠨ ᠵᠡᠢ ᠰᠤᠶ᠋ᠠᠳᠤ ᠬᠡᠭᠦᠷᠢᠭᠦᠨ ᠲᠤᠨ ᠴᠢᠩᠭ᠎ᠠ

$$\xi_{\text{vir}} \approx \dot{\rho} \dot{r}_r \approx \gamma \approx \gamma \approx \gamma$$

U P √ غ Ũ' Ũ ج

No	√	h
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$$\sim \frac{1}{U} \quad U \rightarrow \infty$$

1 || γ ρ ĩ γ β `E

2 | 2

$$3 \quad \sim \quad \mathbb{F}_3 \quad \sim$$

□ ρ γ

✓ a ✓

$\tilde{E}$	$\downarrow$	1.5	U	$\tilde{z}$	ρ
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$\tilde{z}$
 7 № $\tilde{u}$ № $\rho \downarrow \mathfrak{b} \tilde{U}$ ω
 8 $\downarrow$ № ρ O
 9 $\gamma \dot{\rho}$ $\mathfrak{v}$ U $\downarrow \dot{\rho}$ $\Omega \sim$ $\downarrow$ O $\mathfrak{v}$ $\downarrow \beta$
 $\sim$
 10 $\Omega \downarrow$ № № $\mathfrak{M}$ $\downarrow \mathfrak{M}$ $\tilde{U}$
 $\mathfrak{C} \downarrow$ $\downarrow$ $\sim$ $\neq$ 'P
 $\mathbb{N}^{\sim}$ $\dot{\mathfrak{i}} \downarrow$

4.2.2.2 $\downarrow$ $\mathfrak{E}$

1.

$\mathfrak{M} \sim \circ$ $\mathfrak{E}$
 $\downarrow$ $\approx$ D $\mathfrak{n}$

2. $\downarrow$

$\bar{G}$ $\mathfrak{i}$ $\mathfrak{v}$ $\mathfrak{j}$ $\acute{k}$
 $\mathfrak{B}$ $\dot{\mathfrak{i}}$ 2
 $\mathfrak{T} \downarrow \tilde{U}$ $z_{\mathfrak{v}}$ 3000t $\gamma \mathfrak{i}$
 z $\acute{k}$ $\acute{k} \mathring{A}$ 20 30 $^{\circ}$ $\mathfrak{T}$ 3000
 U $\mathring{A}$ $\acute{k}$ 30 $\acute{k}$
 $\mathfrak{T} \mathfrak{T}$ 200 U $\tilde{U}$ $\mathfrak{v}$ $\downarrow$ 4 $\tilde{U}$ β
 $\mathfrak{M} \mathfrak{M} \dot{\rho} \mathfrak{M} \mathfrak{v}$ $\mathfrak{v}$ 400m³
 $\downarrow$ Υ
 $\downarrow$ $\mathfrak{v}$ $\bar{G}$ $\mathfrak{r}$ ()

(GB15562.2-1995)

$\downarrow$ №
 $\downarrow$
 $\downarrow$
 $\mathfrak{r}$ $\mathfrak{i}$ $\mathfrak{r}$ $\mathfrak{F}_0$ $\mathfrak{E}$ $\mathfrak{r} \mathfrak{r}$ $\dot{\rho}$
 $\tilde{u} > \sim$ $\dot{\rho}$
 $\tilde{\mathfrak{Q}}$ $\mathfrak{n}$ 1 $\mathfrak{b}$

$\tilde{E}$ $\mathcal{V}$

1.5

U

 $\tilde{\mathcal{D}}$ $\mathfrak{p}$

$\tilde{E}$	$\sqrt{}$	1.5	U	$\tilde{\rho}$	ρ
				$\rightarrow$	$\rightarrow$
	4.3-1				
	4.3-1	$\sqrt{}$			
		o			
	r				
	$\sim$	r			
$\dagger$	(	)			
γ	(	)			
σ					
	r				
	r				
$\tilde{t}$	r				
	r	$\sqrt{}$	r		
	r	$/$	r		
σ	γ				
σ	$/$				

4.3.1.3 「.

[illegible]

