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| 2.1.3 | | 14 |
| 2.1.4 | | 15 |
| 2.2 | | 15 |
| 2.2.1 | | 15 |
| 2.2.2 | | 16 |
| 2.3 | | 16 |
| 2.3.1 | | 16 |
| 2.3.2 | | 17 |
| 2.4 | | 19 |
| 2.4.1 | | 19 |
| 2.4.2 | | 21 |
| 2.4.3 | | 22 |
| 2.4.4 | | 22 |
| 2.4.5 | | 23 |
| 2.4.6 | | 23 |
| 2.4.7 | | 23 |
| 2.5 | | 24 |
| 2.6 | | 24 |
| 2.7 | | 25 |
| 2.7.1 | “ ” | 25 |
| 2.7.3 | | 25 |
| 2.8 | | 26 |
| 2.8.1 | | 26 |

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| 4.4.1 | | 59 |
| 4.4.2 | | 61 |
| 4.4 | | 80 |
| 5 | | 81 |
| 5.1 | | 81 |
| 5.1.1 | | 81 |
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| 5.1.3 | | |



6.2.4



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6.2.6



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| 9.1.4 | | 142 |
| 9.1.5 | | 143 |
| 9.1.6 | | 145 |
| 9.2 | | 146 |
| 9.2.1 | | 146 |
| 9.2.2 | | 147 |
| 10 | | 149 |
| 10.1 | | 149 |
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| 10.2.5 | | 150 |
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| 10.3.3 | | 151 |
| 10.3.4 | | 152 |
| 10.3.5 | | 152 |
| 10.3.6 | | 152 |
| 10.3.7 | | 152 |
| 10.4 | | 152 |
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| 10.7 | | 154 |

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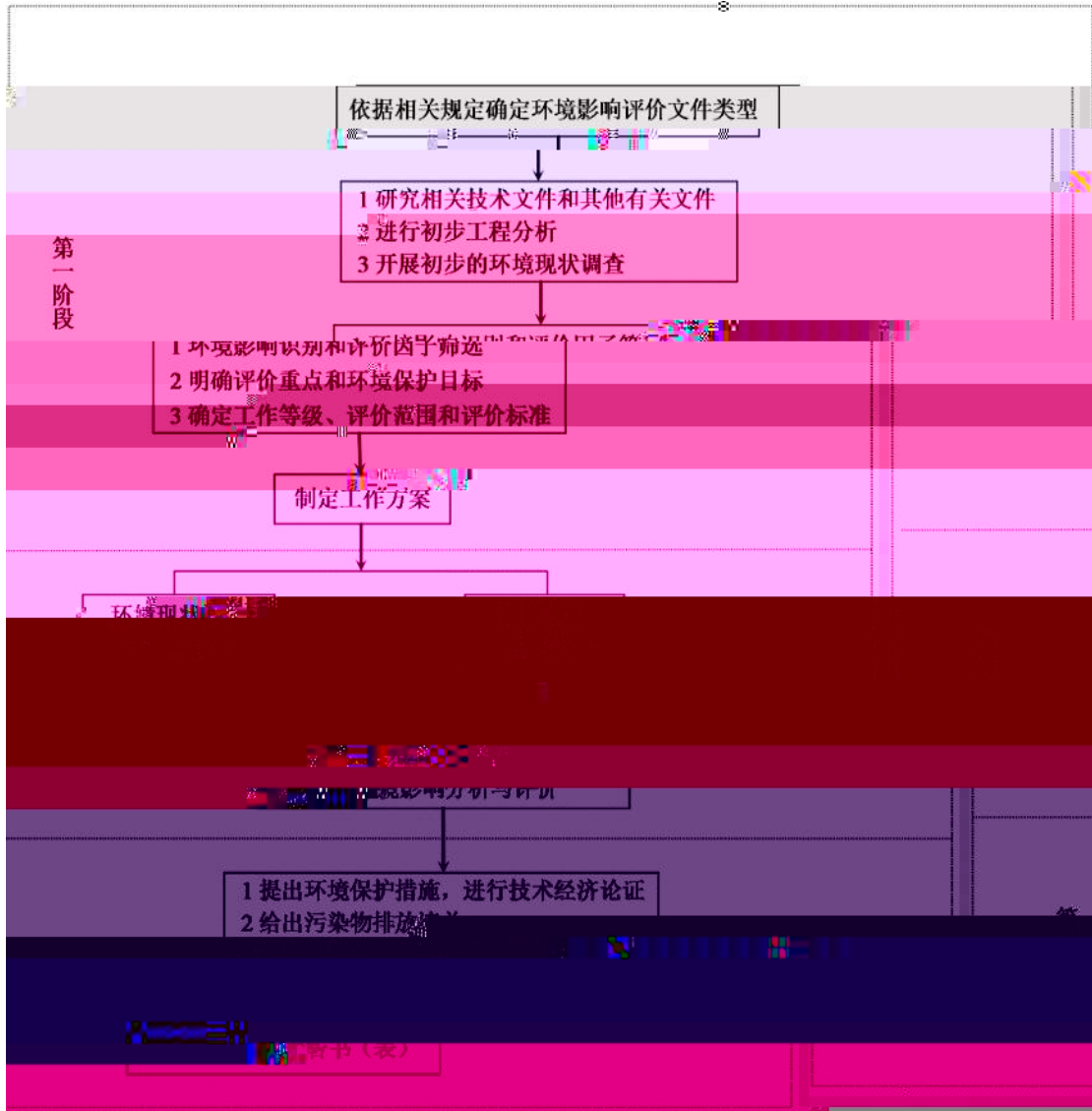
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| 7 | | | | 2019 | 1 | 1 | | | |
| 8 | | | | 2012 | 7 | 1 | | | |
| 9 | | | | 2018 | 10 | 26 | | | |
| 10 | | | | 2016 | 7 | 2 | | | |
| 11 | | | | 2019 | 8 | 26 | | | |
| 12 | | | | 2019 | 4 | 23 | | | |
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| 19 | | | | 2013 | 12 | 7 | | | |

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1 HJ 2.1-2016
2 HJ 2.2-2018
3 HJ 2.3-2018
4 HJ 610-2016
5 HJ 2.4-2021
6 HJ 19-2022
7 HJ 964-2018

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| | | | -1SP | -1LP | -2LP | -1LP | -1LP | | -2LP | |
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2.2-2

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| | | |
| | SO ₂ NO ₂ PM ₁₀ CO PM _{2.5} O ₃ NMHC | SO ₂ NO _x NMHC |
| | pH COD | pH SS BOD ₅ COD _{Cr} NH ₃ -N |
| | K ⁺ Na ⁺ Ca ²⁺ Mg ²⁺ CO ₃ ²⁻ HCO ₃ ⁻ Cl ⁻ SO ₄ ²⁻ pH | |
| | - - | - |
| | GB 36600-2018 1 45 + | |
| | A | A |

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HJ 2.2-2018 D D.1

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| | | | | | |
| | | | | | GB13271-2014 |
| | 40 | 25 | / | 2.0 | DB43/1356-2017 |
| | / | | | 20mg/m ³ | GB37822—2019 |
| | 2000 | 15 | / | 20 | GB14554-93 |

2

GB8978-1996 4

GB/T31962-2015 B

| | 2.3-2 | | | | pH | | mg/L | |
|--|-------|-----|-----|-----|----|----|------|----|
| | 6~9 | 500 | 300 | 400 | / | 20 | 100 | 20 |

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* % X9 Đ ° GB12348-2008

<

GB18599-2020
2013

GB18597-2001

SO₂ NO_x

HJ 2.2-2018

P_i

$$P_i = \frac{C_i}{C_{0i}} \times 100\%$$

P_i—— i

%

C_i——

i

1h

μg/m³

C_{0i}—— i

μg/m³

2.4-1

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| | |
| | P _{max} 10% |
| | 1% P _{max} 10% |
| | P _{max} 1% |

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A III

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HJ 2.4-2009

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3dB(A) [3dB(A)]

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| 2 | a b | |
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| 1 | | 3838-2002 III | GB |
| 2 | | III 14848-2017 III | GB/T |
| 3 | | | GB |

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| | | 3095-2012 |
| 4 | | 3 GB3096-2008 3 |
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2.8-1

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| | | | | | | |
| 1 | | 112.485038 E°,28.11222 1N° | 20 | | NE | 425 |
| 2 | | 112.483477 E°,28.10249 5N° | 50 | | SW | 88 |
| 3 | | 112.475876 E°,28.10436 1N° | 150 | | W | 223 |
| 4 | | 112.480107 E°,28.11025 1N° | 250 | | NW | 130 |
| 5 | | 112.484698 E°,28.10423 6N° | | | E | 100 |
| 6 | | 112.484736 E°,28.10391 9N° | | | SE | 100 |

| | | | | | | |
|---|--|----------------------------------|--|--|----|---------|
| | | | | | | |
| 7 | | 112.485324 E°,28.10386 5N° | | | SE | 270 |
| 8 | | 112.484806 E°,28.10347 9N° | | | SE | 100-500 |

2.8-2

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|---|----------------------------------|----|---|----|-----|
| 1 | 112.483477 E°,28.10249 5N° | 15 | 2 | SW | 88 |
| 2 | 112.480107 E°,28.11025 1N° | 60 | 2 | NW | 130 |
| 3 | 112.484698 E°,28.10423 6N° | | 2 | E | - |

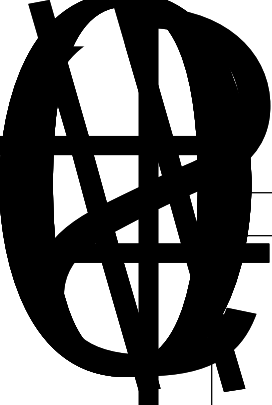
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| 1 | t | 181830 | 300 | 3# |
| 2 | t | 2424 | 47 | 1# |
| 3 | t | 2435 | 47 | 1# 3# 5# |
| 4 | L | 100000 | 1923 | 1# 3# 5# |
| 5 | L | 802 | 5 | |
| 6 | L | 12400 | 350 | 300 |
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| 7 | L | 9400 | 125 | 100 |
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| | | 1 | 2 | 2 | 6 | 6- |
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| 1 | | | | | 10 | |
| | | -1 | 2 | 2 | 6 | 6- |
| | | -4- | | | 1 | |
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| | | | | | 10 | |
| | | | | | 25 | |
| | | 2,4- | | | 10 | |
| | | -2- | | - | 10 | |
| | | 1 | 2 | 2 | 6 | 6- |
| | | -4- | | | 1 | |
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| derivatives | 9 |
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3.4-1

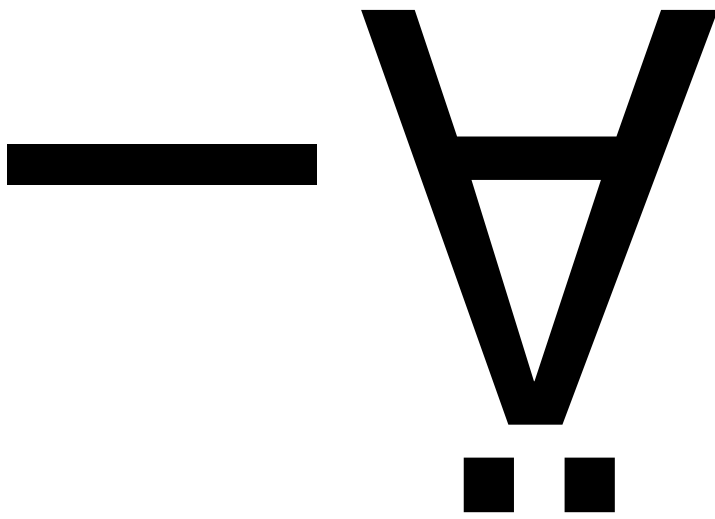
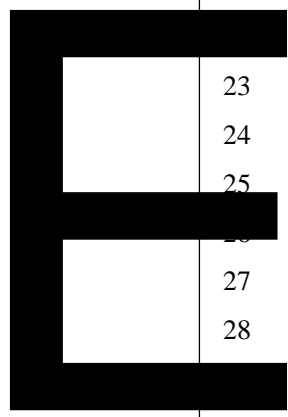
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| 1 | | 12kW | 4m×32m | / | 7 |
| 2 | | | 12mm×3000m | / | 2 |
| 3 | | | 400-2050mm | / | 7 |
| 4 | | | 1000-4000mm | / | 2 |
| 5 | | 1200t | 2000t 2500t 14m | / | 5 |
| 6 | | | 13m | / | 2 |
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| | | | | |
| 5 | | ZY-G10W | / | 1 |
| 6 | KBK | S=6m Gn=300kg | / | 10 |
| 7 | | 3m 2m 300kg | / | 8 |
| 8 | | 200-1000N.m | / | 40 |
| 9 | | - | | |
| | | | | |
| 1 | | 240000mm*5100mm*3000mm * * | / | 1 |
| 2 | | 5m 8t+8t | / | 1 |
| 3 | | S=16m Gn=10+10t | / | 1 |
| 4 | | 2t 1.5m | / | 1 |
| 5 | | 10m 16m*3m*1.8m * * | / | 4 |
| 6 | KBK | 5.5m 500kg | / | 4 |
| 7 | | 3m 300kg | / | 4 |
| 8 | | 200-1000N.m | / | 20 |
| 9 | | | / | 1 |
| 10 | | 4000m ³ /h 3KW | / | 1 |
| 11 | | - | / | 1 |
| 12 | | - | | |
| 13 | | | / | 1 |
| 14 | | | / | 1 |
| 15 | | | / | 1 |
| 16 | | | / | 1 |
| 17 | | | / | 2 |
| 18 | | | / | 1 |
| 19 | | | / | 1 |
| 20 | | | / | 1 |
| 21 | | | / | 1 |

| | | | | |
|----|-----|--------------------------------|---|----|
| | | | | |
| 22 | | | / | 1 |
| 23 | | | / | 1 |
| 24 | | | / | 1 |
| 25 | | | / | 3 |
| 26 | | | / | 2 |
| 27 | EMS | | / | 3 |
| 28 | | | / | 8 |
| 29 | | | / | 1 |
| 30 | | | / | 1 |
| 31 | | | / | 1 |
| 32 | AGV | | / | 2 |
| 33 | KBK | | / | 20 |
| 34 | | | / | 6 |
| 35 | | | / | 1 |
| 36 | | | / | 1 |
| 37 | | Gn=10t S=22.5m | / | 4 |
| 38 | | | / | 20 |
| | | | | |
| 1 | | 15 L=80m | / | 1 |
| 2 | | 4000mm*2000mm*1500mm * * 5T | / | 2 |
| 3 | | 3m 2m 300kg | / | 4 |
| 4 | | 200-1000N.m | / | 3 |
| 5 | | + 100kg | / | 1 |
| 6 | | + : 300KG | / | 1 |
| 7 | | 15-36N.m | / | 2 |
| 8 | | | / | 1 |
| 9 | | | / | 1 |
| 10 | | SR-G100 | / | 1 |
| 11 | | 200-1000N.m | / | 16 |
| 12 | KBK | 5.5m | / | 8 |

8 / 30

9

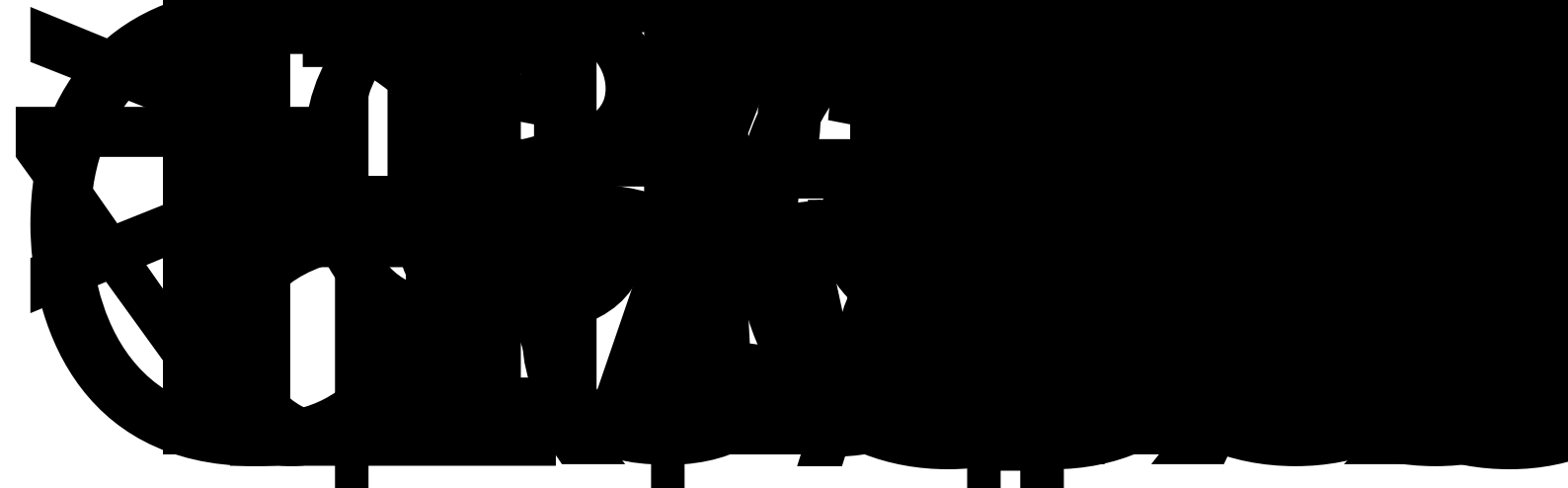
1 / 1

2 / 1

3 / 1

4

| | | | | |
|----|-----|-------------------|---|----|
| | | | | |
| | | L=1000kg | | |
| 3 | | L=100 3500kg | / | 1 |
| 4 | | L=100 3500kg | / | 1 |
| 5 | | L=154M 3500kg | / | 1 |
| 6 | | L=240 4500kg | / | 1 |
| 7 | | L=110m 12000kg | / | 1 |
| 8 | | 10-50 | / | 20 |
| 9 | AGV | 1-2t | / | 40 |
| 10 | | 3-8t | / | 6 |
| 11 | | 5t | / | 10 |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| | | | | |
| 1 | | 10-50 | | |
| 2 | AGV | 1-10t | | |
| 3 | | 3-8t | | |
| 4 | | 5t | | |
| 5 | | 20t | | |
| 6 | | | | |
| 7 | | | | |



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3#

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1#

3#

6#

7#

1

2

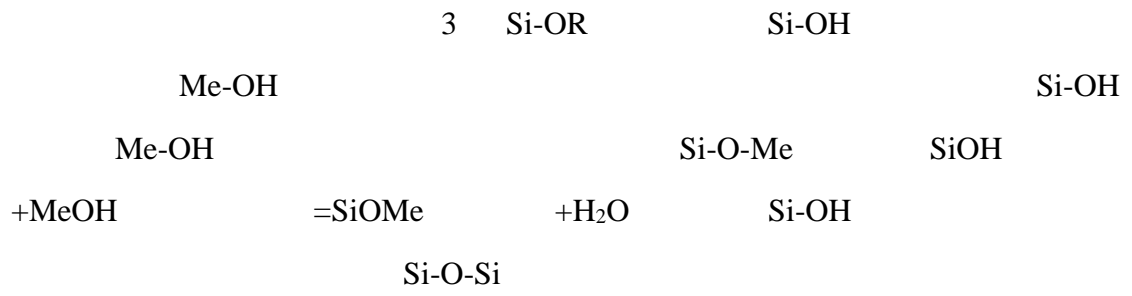
40 -50

2

6

3

2



4

| | | | |
|------|------|-----|----|
| 3min | 28±2 | | |
| UF | | UF | UF |
| | | UF1 | 3 |
| | UF2 | | 1 |
| | UF | | |

1

5

6

7

2#

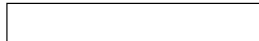
6#



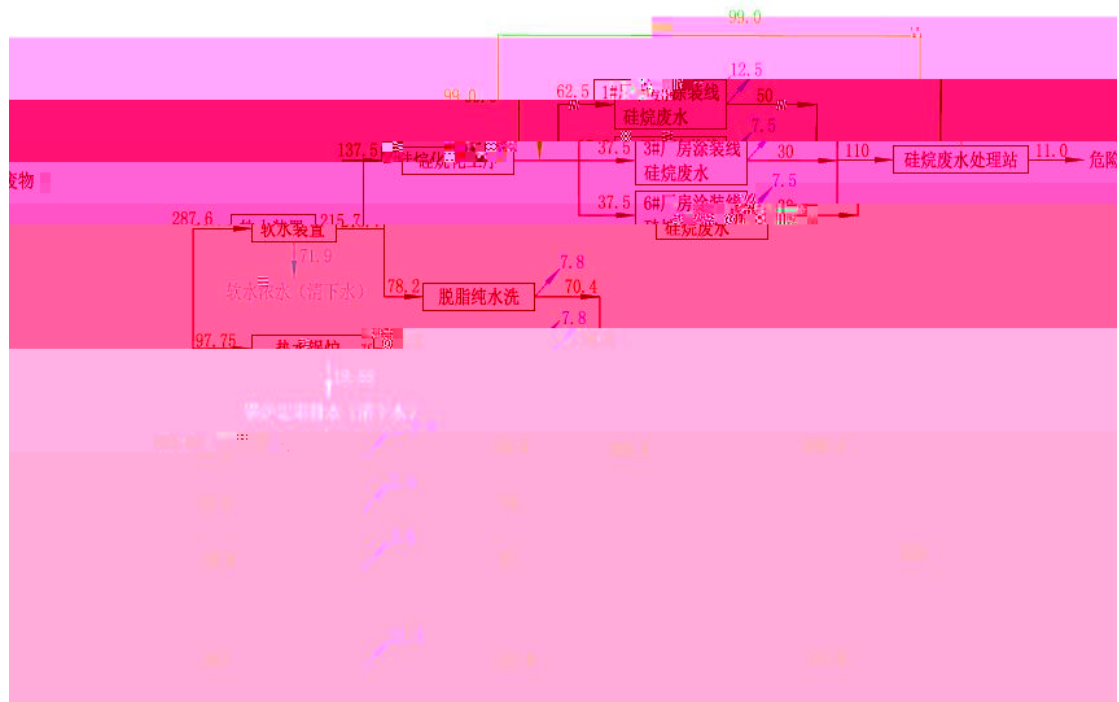
4.1-1

4.2-1

| | | | | |
|-------|-----|---|---------------------------------|-----|
| | G1 | | | |
| | G2 | | | |
| | G3 | | | |
| | G4 | | VOCs | |
| | G5 | | VOCs | |
| G | G6 | | VOCs | |
| | G7 | | | |
| | G8 | | VOCs | |
| | G9 | | VOCs | |
| | G10 | | SO ₂ NO _x | |
| | W1 | | COD _{cr} SS | P a |
| | W2 | | COD _{cr} SS | |
|] W | W3 | È | | |



| | | | | |
|--|-----|--|--|--|
| | | | | |
| | S14 | | | |



4.3-1

m³/d



4.3-2

t/a

CO THC NOx

CO 5.25g/ ·km THC 20.8g/ ·km NOx 10.44g/ ·km

í CE Níà» í

0%

!

€

4.4-1

| | |
|--|-----|
| | |
| | 86 |
| | 84 |
| | 110 |
| | 88 |
| | 88 |
| | 87 |
| | 85 |

4.4-2

| | | | |
|--|--|--|-------|
| | | | 90 |
| | | | 80 85 |
| | | | 75 |

1

&

1

2

1

1

2021

24 “35

”

2.19kg/t

6

1#

3#

6#

7#

6

+

90%

+

95%

1#

DA001

1#

93579t/a

3760h

204.94t/a

86000m³/h

1#

9.22t/a

2.45kg/h

28.52mg/m³

20.49t/a

5.45kg/h

1#

DA004

1#

11415t/a

3760h

25t/a

34000m³/h

1#

1.12t/a

0.30kg/h

8.80mg/m³

2.50t/a

0.66kg/h

3#

DA006 DA007

| | | |
|-------------------------|----------|------------------------|
| 3# | | 68146t/a |
| 3760h | | 149.24t/a |
| 146000m ³ /h | 3# | 6.72t/a |
| 1.79kg/h | | 12.23mg/m ³ |
| 14.92t/a | 3.97kg/h | |

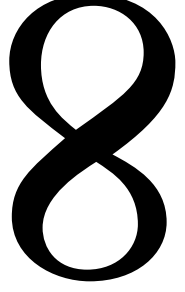
| | | | 2021 | 24 | “35 | |
|----|-------------------------|-----------------------|---------|----|---------|------------|
| | ” | | | | | 166kg/t |
| | 7 | | 1# | 1 | 6# | 1 |
| 7# | 5 | | | | | |
| | 1# | DA002 | | | | |
| | 1# | 15t/a | 3760h | | | 1# |
| | | 2.49t/a 1# | | | | |
| | 90% | | 90% | | | |
| | 57000m ³ /h | | 0.22t/a | | | 0.06kg/h |
| | | 1.05mg/m ³ | | | 0.25t/a | |
| | 0.07kg/h | | | | | |
| | 6# | DA011 | | | | |
| | 6# | 15t/a | 3760h | | | 6# |
| | | 2.49t/a 6# | | | | |
| | 90% | | 90% | | | |
| | 72000m ³ /h | | 0.22t/a | | | 0.06kg/h |
| | | 0.83mg/m ³ | | | 0.25t/a | |
| | 0.07kg/h | | | | | |
| | 7# | DA012 DA013 | | | | |
| | 7# | 2 | | | 15t/a | |
| | 3760h | 7# | | | | |
| | 2.49t/a 7# | | | | | |
| | 90% | | 95% | | | |
| | 120000m ³ /h | | 0.11t/a | | | 0.03kg/h |
| | | 0.25mg/m ³ | | | 0.25t/a | |
| | 0.07kg/h | | | | | |
| | 7# | DA014 DA015 | | | | |
| | 7# | 2 | | | 2t/a | |
| | 3760h | 7# | | | | 0.33t/a 7# |

90%

95%

140000m³/h

| | | | | |
|-----------------------|---|----------|---|-------------------------|
| 1# | | 3# | | 6# |
| 1# | | DA003 | | |
| 1# | | | | |
| 1# | | 560t/a | | 3760h |
| 1# | | 84.0t/a | | 123.20t/a 1# |
| “ | + | + | ” | |
| 90% | | 98% | | + |
| 87.7% | | | | 480000m ³ /h |
| | | 9.30t/a | | 2.47kg/h |
| 5.15mg/m ³ | | | | 8.40t/a |
| 2.23kg/h | | | | |
| | | 2.22t/a | | 0.59kg/h |
| 1.23mg/m ³ | | 12.32t/a | | 3.28kg/h |
| 3# | | DA008 | | |
| 3# | | | | |
| 3# | | 460t/a | | 3760h |
| 3# | | 69.0t/a | | 101.20t/a 3# |
| “ | + | + | ” | |
| 90% | | 98% | | + |
| 87.7% | | | | 550000m ³ /h |
| | | 7.64t/a | | 2.03kg/h |
| 3.69mg/m ³ | | | | 6.90t/a |
| 1.83kg/h | | | | |
| | | 1.82t/a | | 0.48kg/h |
| 0.88mg/m ³ | | 10.12t/a | | 2.69kg/h |
| 6# | | DA010 | | |
| 6# | | | | |
| 6# | | 360t/a | | 3760h |
| 6# | | 54t/a | | 79.20t/a 6# |
| “ | + | + | ” | |



90%
87.7%

1.87mg/m

98%
5.98t/a

+
850000m³/h
1.59kg/h

| | | | | | | | | |
|--|------|-------|----|------|--|------|------|------|
| | | | | | | | | |
| | NMHC | DA005 | 20 | 0.60 | | 7.18 | 0.02 | 0.08 |
| | | | | | | / | 0.02 | 0.06 |

5
 2
 7#
 2021
 24 “35”
 289kg/t
 72.2kg/t
 220kg/t
 1,2,4-MSDS
 150t/a
 3760h
 54.18t/a
 3.54t/a
 33.0t/a
 90t/a
 3760h
 32.51t/a
 2.12t/a
 19.80t/a
 “
 + + ” 90% 98%
 + 87.7%
 380000m³/h
 DA016
 6.0t/a
 1.60kg/h
 4.20mg/m³

0.4

5.27kg/h

4.4-7

1.98t/a

0.58kg/h



1# 3# 6#

2021

24 1 Nm³
 13.63 Nm³ NOx18.71kg SO₂0.02×Skg
 200mg/m³ S=200 2.4kg
 1# 575000Nm³/a
 5000m³/h NOx0.54t/a 0.14kg/h 28.61mg/m³ SO₂0.23t/a
 0.06kg/h 12.23mg/m³ 0.14t/a 0.04kg/h 7.34mg/m³ 20m

3# 410000Nm³/a 3500m³/h
 NOx0.38t/a 0.10kg/h 29.15mg/m³ SO₂0.16t/a 0.04kg/h
 12.46mg/m³ 0.10t/a 0.03kg/h 7.48mg/m³ 20m

6# 380000Nm³/a 5000m³/h
 NOx0.36t/a 0.09kg/h 18.91mg/m³ SO₂0.15t/a 0.04kg/h
 8.09mg/m³ 0.09t/a 0.02kg/h 4.85mg/m³ 20m

4.4-8

| | | | | | | | |
|----|-----------------|-------|----|------|-------|------|------|
| 1# | NOx | DA020 | 20 | 1.08 | 28.61 | 0.14 | 0.54 |
| | | | | / | / | / | |
| | SO ₂ | | | 0.23 | 12.23 | 0.06 | 0.23 |
| | | | | 0.14 | 7.34 | 0.04 | 0.14 |
| | | | | | / | / | / |
| 3# | NOx | DA021 | 20 | 0.77 | 29.15 | 0.10 | 0.38 |
| | | | | / | / | / | |
| | SO ₂ | | | 0.16 | 12.46 | 0.04 | 0.16 |
| | | | | 0.10 | 7.48 | 0.03 | 0.10 |
| | | | | | / | / | / |
| 6# | NOx | DA022 | 20 | 0.71 | 18.91 | 0.09 | 0.36 |
| | | | | / | / | / | |
| | SO ₂ | | | 0.15 | 8.09 | 0.04 | 0.15 |
| | | | | 0.09 | 4.85 | 0.02 | 0.09 |
| | | | | | / | / | / |

2

1

“35

”

9.19kg/t

2435t/a

Miles

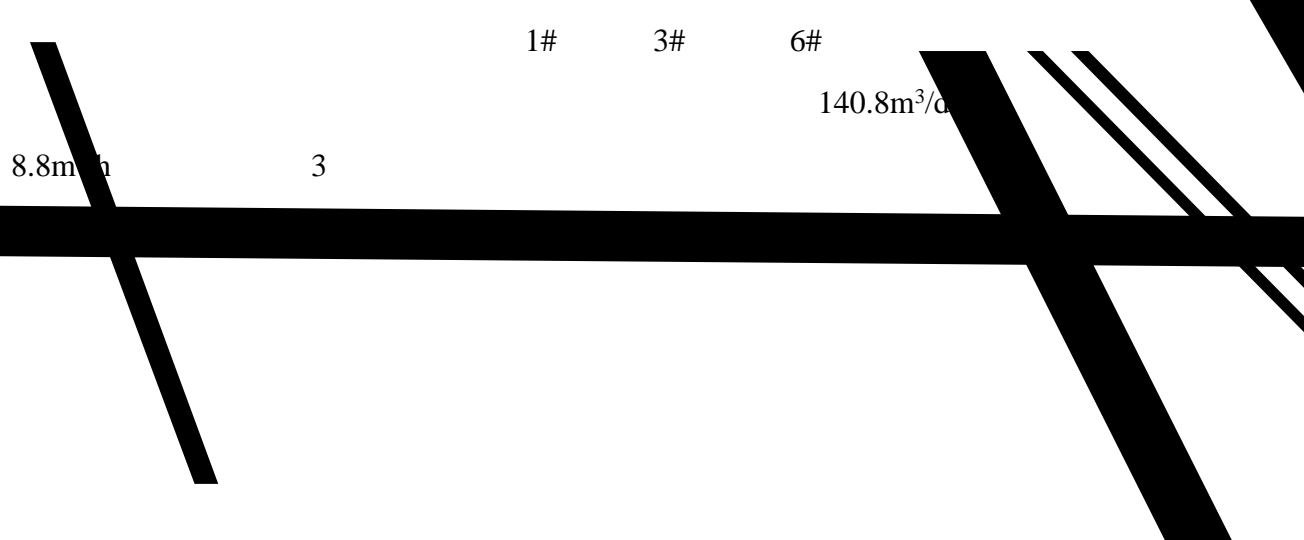
4.1-9

| | | | | | | | | | | | | | |
|-------|------|--------|----|---|------|--------|-------|-----------------|------|-----------------|------|------|------|
| DA001 | | 204.94 | 90 | + | 95 | 86000 | 28.52 | 2.45 | 9.22 | 20.49 | 5.45 | | |
| DA002 | | 2.49 | 90 | | 90 | 57000 | 1.05 | 0.06 | 0.22 | 0.25 | 0.07 | | |
| DA003 | NMHC | 84.0 | 90 | | 87.7 | 480000 | 5.15 | 2.47 | 9.30 | 8.40 | 2.23 | | |
| | | 123.20 | 90 | | 98 | | 1.23 | 0.62 | 2.22 | 12.32 | 3.28 | | |
| DA004 | | 25.0 | 90 | + | \$ | 95 | 34000 | 8.80 | " | 0.70 | 1.12 | 2.50 | 0.66 |
| DA005 | NMHC | 0.60 | 90 | | ** | | | | | | | | |

| DA010 | | NMHC | 54.0 | 90 | + | 87.7 | 850000 | 1.87 | 1.59 | 5.98 | 5.40 | 1.44 |
|----------------|----|------|-------|-----|---|------|--------|-------|-------|------|------|-------|
| | | | 79.20 | 90 | | 98 | | 0.45 | 0.38 | 1.43 | 7.92 | 2.11 |
| DA011 | | | 2.49 | 90 | | 90 | 72000 | 0.83 | 0.06 | 0.22 | 0.24 | 0.07 |
| DA012 DA013 | | | 2.49 | 90 | | 95 | 120000 | 0.25 | 0.03 | 0.11 | 0.25 | 0.07 |
| DA014 DA015 | | | 0.33 | 90 | | 95 | 140000 | 0.03 | 0.004 | 0.01 | 0.03 | 0.009 |
| DA016 | | NMHC | 54.18 | 90 | + | 87.7 | 380000 | 4.20 | 1.60 | 6.00 | 5.42 | 1.44 |
| | | | 3.54 | | | | | 0.27 | 0.10 | 0.39 | 0.35 | 0.09 |
| | | | 33.0 | | | | | 0.42 | 0.16 | 0.59 | 3.30 | 0.88 |
| DA017 | | NMHC | 32.51 | 90 | + | 87.7 | 380000 | 2.52 | 0.96 | 3.60 | 3.25 | 0.86 |
| | | | 2.12 | | | | | 0.16 | 0.06 | 0.24 | 0.21 | 0.06 |
| | | | 19.80 | | | | | 0.25 | 0.09 | 0.36 | 1.98 | 0.53 |
| DA018 | | | 1.41 | 90 | + | 95 | : | 0.22 | 0.02 | 0.06 | 0.14 | 0.04 |
| DA019 | | | 6.64 | 90 | + | 98 | 107000 | 0.30 | 0.03 | 0.12 | 0.66 | 0.18 |
| DA020 | 1# | NOx | 1.08 | 100 | | 50 | 5000 | 28.61 | 0.14 | 0.54 | / | / |

| | | SO ₂ | 0.23 | 100 | | 0 | 5000 | 12.23 | 0.06 | 0.23 | / | / |
|-------|----|-----------------|------|-----|--|----|------|-------|------|------|---|---|
| | | | 0.14 | 100 | | 0 | 5000 | 7.34 | 0.04 | 0.14 | / | / |
| DA021 | 3# | NO _x | 0.77 | 100 | | 50 | 3500 | 29.15 | 0.10 | 0.38 | / | / |
| | | SO ₂ | 0.16 | 100 | | 0 | 3500 | 12.46 | 0.04 | 0.16 | / | / |
| | | | 0.10 | 100 | | 0 | 3500 | 7.48 | 0.03 | 0.10 | / | / |
| DA022 | 6# | NO _x | 0.71 | 100 | | 50 | 5000 | 18.91 | 0.09 | 0.36 | / | / |
| | | SO ₂ | 0.15 | 100 | | 0 | 5000 | 8.09 | 0.04 | 0.15 | / | / |
| | | | 0.09 | 100 | | 0 | 5000 | 4.85 | 0.02 | 0.09 | / | / |

BOREHOLE



1#

3#

6#

8.8m

3

140.8m³/d

Q

25.6m³/d

COD 500

70mg

800 1000

N

NOVA

Q — (L/s)
 — =0.85~0.95
 F — (ha)
 48448m² 15min
 1096m³ SS30mg/L 50mg/L

4.4-2

| | | — | 33088 |
|--|--------------------|------|----------------------|
| | CODcr | 750 | 24.82 |
| | SS | 200 | 6.62 |
| | | 500 | 16.54 |
| | | — | 25850 |
| | CODcr | 700 | 18.10 |
| | SS | 400 | 10.34 |
| | | 60 | 1.55 |
| | | 60 | 1.55 |
| | | — | 5640 |
| | CODcr | 1000 | 5.64 |
| | SS | 200 | 1.13 |
| | | — | 6016 |
| | CODcr | 500 | 3.00 |
| | | 70 | 0.42 |
| | | — | 2350 |
| | CODcr | 500 | 1.17 |
| | SS | 300 | 0.70 |
| | | 10 | 0.02 |
| | | — | 28576 |
| | CODcr | 500 | 14.29 |
| | BOD ₅ | 200 | 5.71 |
| | SS | 300 | 8.57 |
| | NH ₃ -N | 45 | 1.28 |
| | | — | 1233m ³ / |
| | SS | 30 | 0.042t/ |

| | | | |
|--|--|--|---------|
| | | | |
| | | | |
| | | | 50 |
| | | | 0.071t/ |

322m³/d

+

GB/T31962-2015 B

GB8978-1996

322m³/d

4.4-3

| | | | | | | | | | |
|---|------|-----|-------|-----|--------|------|--------|------|--------|
| | mg/L | pH | — | 6-9 | 500 | 200 | 300 | 45 | / |
| | | t/a | 28576 | — | 14.29 | 5.71 | 8.57 | 1.28 | / |
| + | mg/L | pH | — | 6-9 | 425 | 182 | 210 | 436 | / |
| | | t/a | 28576 | — | 12.14 | 5.20 | 6.00 | 1.24 | / |
| | mg/L | pH | — | 6-9 | 735.53 | / | 179.44 | / | 360.74 |
| | | t/a | 47094 | — | 34.64 | / | 8.45 | / | 16.99 |
| | mg/L | pH | — | 6-9 | 296.21 | / | 53.83 | / | 18222 |
| | | t/a | 47094 | — | 13.86 | / | 2.54 | / | 5.10 |

4.4-4

dB(A)

| | | | |
|--|--|-------|-------|
| | | | |
| | | 75~90 | 65~70 |
| | | 80~85 | 60~65 |
| | | 80~90 | 60~70 |
| | | 80~85 | 60~65 |
| | | 85~90 | 65~70 |
| | | 80~85 | 60~65 |
| | | 85~90 | 65~70 |
| | | 75~85 | 55~65 |
| | | 80~90 | 60~70 |

1

2

3

4

70dB A

4.4-5

t/a

| | | | | |
|---|--|--|--|-------|
| | | | | |
| 1 | | | | 184.3 |
| 2 | | | | 73 |
| 3 | | | | 3 |
| 4 | | | | 4 |

| | |
|----|------|
| 5 | 77 |
| 6 | 11.5 |
| 7 | 1.0 |
| 8 | 47 |
| 9 | 3 |
| 10 | 2 |
| 11 | 340 |
| 12 | 22 |
| 13 | 1 |
| 14 | 2 |

| | | | | | | | |
|--|--|--|--|------|------------|-----|--|
| | | | | | | | |
| | | | | HW08 | 900-249-08 | 3 | |
| | | | | HW49 | 900-047-49 | 22 | |
| | | | | HW49 | 900-047-49 | 1 | |
| | | | | HW49 | 900-047-49 | 2 | |
| | | | | / | / | 2 | |
| | | | | / | / | 340 | |
| | | | | / | / | 893 | |

1

GB8978-1996

CODcr NH₃-N

26t/a 3.3t/a

GB18918-2002 IV

CODcr30mg/L NH₃-N1.5mg/L

CODcr NH₃-N 2.27t/a

0.11t/a

2

SO₂ NO_x VOCs

SO₂ NO_x VOCs

0.54t/a 1.28t/a 62.03t/a

4.4-7

| | | | |
|---|--------------------|-------|-------|
| | | | |
| 1 | COD | 2.27 | 2.27 |
| 2 | NH ₃ -N | 0.11 | 0.11 |
| 3 | SO ₂ | 0.54 | 0.54 |
| 4 | NO _x | 1.28 | 1.28 |
| 5 | VOCs | 62.03 | 62.03 |

CODCr 2.27t/a

0.11t/a SO₂

0.54t/a NOx 1.28t/a

VOCs

62.03t/a

“ ”

319

112.482105°E 28.105557°N

1

1607.9

200

30-80

23.5

100

300.8

30

100.0m

46.5m

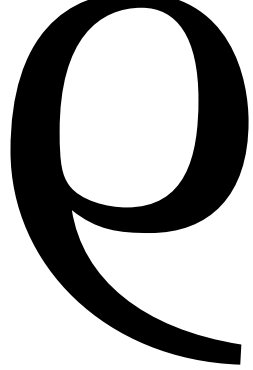
53.5m

60- 90m

30m

20%

600



2021 1 1 ~2021 12 31
2021 1 ~12

| 5.2-1 2021 | | μg/m ³ | |
|-------------------|-------|-------------------|------|
| PM ₁₀ | | 52 | 70 |
| PM _{2.5} | | 43 | 35 |
| NO ₂ | | 29 | 40 |
| SO ₂ | | 7 | 60 |
| CO | 95 | 992 | 4000 |
| O ₃ | 90 8h | 126 | 160 |

2mg/m³

5.2-3 mg/m³

| | | | | | |
|----|------|-----------|---|-----|--|
| | | | | | |
| G1 | | ND | 0 | 0.2 | |
| | NMHC | 0.69-0.82 | 0 | 2.0 | |

2mg/m³

“2021 1 ~12 ” “2021 1 ~12 ”

2021 1-12

III

1 W1 W2
 2 pH COD
 3 2020 3 21
 4 GB3838-2002 III
 5

5.2-3 mg/L pH

| | | | | | | |
|----|-----------|------|-----|---|-------|------|
| | | | | | | |
| W1 | 2020.3.21 | 7.63 | 6.1 | 7 | 0.437 | 0.14 |

GB/T14848-2017 III

S 5.2-5

mg/L pH

D1

| | | | | | | | | | | | | |
|--|---|---------|-----------|-------|-----|--------|-----------|------|-------|------|-----|-------|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | 0.006L | 0.21-0.23 | 88-90 | 1.5 | 0.018L | 0.7-0.706 | ND | ND | ND | 2 | 30-40 |
| | % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| | | pH | | | | | | | | | | |
| | | 6.5-8.5 | 0.50 | 20 | 1.0 | 0.002 | 0.05 | 0.01 | 0.001 | 0.05 | 450 | 0.01 |
| | | | | | | | | | | | | |
| | | 1.0 | 0.3 | 1000 | 3.0 | 250 | 250 | 0.50 | 3.0 | 100 | | |

(sed

2022 6 6 ~2022 6 12

6

5.2-6

| | | | |
|----|--------|--------------|-------------|
| T1 | | 112.481151°E | 28.110586°N |
| T2 | 2 j? x | 118.88328°E | 28.104678°N |
| T3 | | | |

T1~T3 T5 T4

GB36600-2018 1

T6

GB15618-2018 1

5.2-7

mg/kg

| | | 5.2-7 | | | | | mg/kg | | |
|----------------|------|-------|-----|-------|-----|-------|-------|-----|-----|
| 1-F9 Ei 7 õ | 12.2 | 0.52 | ND | 24 | 35 | 0.138 | 20 | ND | ND |
| | 60 | 65 | 5.7 | 18000 | 800 | 38 | 900 | 2.8 | 0.9 |
| | ND | ND | ND | ND | | | | | |

T4

0-0.2m

2022 6 6 ~2022 6 12

4

3

5.2-8

| | | | | |
|----|----|--------------|-------------|--|
| | | | | |
| N1 | 1m | 112.484281°E | 28.105376°N | |
| N2 | 1m | 112.483721°E | 28.102722°N | |
| N3 | 1m | 112.480620°E | 28.104493°N | |
| N4 | 1m | 112.482416°E | 28.111123°N | |

LAeq

1

GB3096-2008 2 4a

B

| | | | | |
|-----|--------------------|-----------------|-----------------------|------|
| | | | | 100m |
| 1m | 3mg/m ³ | 25m | 1.53mg/m ³ | 60m |
| TSP | | | | |
| 4~5 | 70% | | | |
| | SO ₂ | NO ₂ | CO | |

$$L(r) = L(r_0) - 20 \lg(r/r_0) - \Delta L$$

$L(r) = L(r_0) - 20 \lg(r/r_0) - \Delta L$
 dB(A)

HJ2.4-2009

Aatm

Agr

6.1-2

dB A

| m | 10 | 20 | 40 | 60 | 80 | 100 | 150 | 200 | 250 | 300 | 350 | 520 |
|---|------|------|------|------|------|------|------|------|------|------|------|------|
| | 82 | 75.9 | 69.8 | 62.3 | 59.1 | 56.6 | 52.0 | - | - | - | - | - |
| | 88 | 81.9 | 75.8 | 68.3 | 65.1 | 62.6 | 58.0 | 54.7 | - | - | - | - |
| | 82.5 | 76.4 | 70.3 | 62.8 | 59.6 | 57.1 | 52.5 | - | - | - | - | - |
| | 82 | 75.9 | 69.8 | 62.3 | 59.1 | 56.6 | 52.0 | - | - | - | - | - |
| | 100 | 93.9 | 87.8 | 80.3 | 77.1 | 74.6 | 70.0 | 66.7 | 64.0 | 61.8 | 60.0 | 54.9 |
| | 87 | 80.9 | 74.8 | 67.3 | 64.1 | 61.6 | 57.0 | 53.7 | - | - | - | - |

60m

r

((2015)15)

2

1

2

pH

3

4

a

| | | | | | | |
|-------|---|------|--------|-------|-------|-------|
| DA006 | | | 149.24 | 6.72 | 1.79 | 12.23 |
| | | | | 14.92 | 3.97 | / |
| DA007 | | | 149.24 | 6.72 | 1.79 | 12.23 |
| | | | | 14.92 | 3.97 | / |
| | | NMHC | 54.00 | 5.98 | 1.59 | 1.87 |
| DA008 | | | | 5.40 | 1.44 | / |
| | | | 101.20 | 1.82 | 0.48 | 0.88 |
| | | | | 10.12 | 2.69 | / |
| DA009 | | | 2.78 | 0.12 | 0.03 | 0.19 |
| | | | | 0.28 | 0.07 | / |
| | | NMHC | 54.00 | 5.98 | 1.59 | 1.87 |
| DA010 | | | | 5.40 | 1.44 | / |
| | | | 79.20 | 1.43 | 0.38 | 0.45 |
| | | | | 7.92 | 2.11 | / |
| DA011 | | | 2.49 | 0.22 | 0.06 | 0.08 |
| | | | | 0.25 | 0.07 | / |
| | | | | 0.11 | 0.03 | 0.25 |
| DA012 | | | 2.49 | 0.25 | 0.07 | / |
| | 1 | | | 0.11 | 0.03 | 0.25 |
| DA013 | | | 2.49 | 0.25 | 0.07 | / |
| | 2 | | | 0.25 | 0.07 | / |
| DA014 | | | 0.33 | 0.01 | 0.004 | 0.03 |
| | 1 | | | 0.03 | 0.009 | / |
| DA015 | | | 0.33 | 0.01 | 0.004 | 0.03 |
| | 2 | | | 0.03 | 0.009 | / |
| | | NMHC | 54.18 | 6.00 | 1.60 | 4.20 |
| | | | | 5.42 | 1.44 | / |
| DA016 | | | 3.54 | 0.39 | 0.10 | 0.27 |
| | | | | 0.35 | 0.09 | / |
| | | | 33.00 | 0.59 | 0.16 | 0.42 |
| | | | | 3.30 | 0.88 | / |
| | | NMHC | 32.51 | 3.60 | 0.96 | 2.52 |
| | | | | 3.25 | | |
| DA017 | | | | | | |

| | | | | | | | |
|-------|----|-----------------|--|-------|--------|------|-------|
| | | | | | | | |
| | | | | | | | |
| DA020 | 1# | NOx | | 1.08 | 0.54 | 0.14 | 28.61 |
| | | | | | / | / | / |
| | | SO ₂ | | 0.23 | 0.23 | 0.06 | 12.23 |
| | | | | | / | / | / |
| | | | | 0.14 | 0.14 | 0.04 | 7.34 |
| | | | | | / | / | / |
| DA021 | 3# | NOx | | 0.77 | 0.38 | 0.10 | 29.15 |
| | | | | | / | / | / |
| | | SO ₂ | | 0.16 | 0.16 | 0.04 | 12.46 |
| | | | | | / | / | / |
| | | | | 0.10 | 0.10 | 0.03 | 7.48 |
| | | | | | / | / | / |
| DA022 | 6# | NOx | | 0.71 | 0.36 | 0.09 | 18.91 |
| | | | | | / | / | / |
| | | SO ₂ | | 0.15 | 0.15 | 0.04 | 8.09 |
| | | | | | / | / | / |
| | | | | 0.09 | 0.09 | 0.02 | 4.85 |
| | | | | | / | / | / |
| / | | | | 22.38 | / | / | / |
| | | | | | 2.24 | 0.60 | / |
| / | | | | 19.80 | / | / | / |
| | | | | | 0.99 | 0.26 | |
| | | SO ₂ | | | 0.54 | | |
| | | NO _x | | | 1.28 | | |
| | | NMHC | | | 32.60 | | |
| | | | | | 24.69 | | |
| | | | | | 0.63 | | |
| | | SO ₂ | | | / | | |
| | | NO _x | | | / | | |
| | | NMHC | | | 29.43 | | |
| | | | | | 78.65 | | |
| | | | | | 0.56 | | |
| | | SO ₂ | | | 0.54 | | |
| | | NO _x | | | 1.28 | | |
| | | NMHC | | | 62.03 | | |
| | | | | | 103.34 | | |
| | | | | | 1.19 | | |

HJ 2.2-2018

) 2017 9

2019 7 31

HJ 610-2016 a "

1

% ?

0.30~7.50m

(Qd1)

95%

0.80~5.40m

(Qal)

~

95%

0.90~9.10m

(Qal)

~

80mm

2~20mm

0.80~7.20m

(Qel)

~

95%

0.60-8.60m

(K)

RQD

30~45

V

5.9m

“ + ”

2

6.2-2

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |

a



1

$$C = C_0 \left[\frac{1}{2} \left(\frac{x - ut}{\sqrt{D}} \right) - \frac{1}{2} \left(\frac{x - ut}{\sqrt{D}} \right) + \frac{1}{2} \left(\frac{x + ut}{\sqrt{D}} \right) - \frac{1}{2} \left(\frac{x + ut}{\sqrt{D}} \right) \right]$$

C_0 — mg/L
 x — m
 u — m/d
 t — d
 D — m²/d

6.2-3

mg/L

COD

500

3.0 GB/T14848-2017III

6.2-4 COD

| | | | |
|---------|--------|--------|--------|
| | | | |
| 5 | 321.00 | 442.00 | 469.00 |
| 10 | 162.00 | 385.00 | 437.00 |
| 15 | 69.20 | 329.00 | 406.00 |
| 20 | 23.90 | 276.00 | 374.00 |
| 25 | 6.59 | 228.00 | 343.00 |
| 30 | 1.45 | 184.00 | 313.00 |
| 35 | 0.25 | 146.00 | 283.00 |
| 40 | 0.03 | 113.00 | 255.00 |
| 45 | 0.00 | 86.00 | 228.00 |
| 50 | 0.00 | 64.10 | 203.00 |
| 60 | 0.00 | 33.30 | 157.00 |
| 70 | 0.00 | 15.80 | 118.00 |
| 80 | 0.00 | 6.90 | 86.80 |
| 90 | 0.00 | 2.74 | 61.90 |
| 100 | 0.00 | 0.99 | 42.90 |
| 110 | 0.00 | 0.33 | 28.90 |
| 120 | 0.00 | 0.10 | 18.90 |
| 130 | 0.00 | 0.03 | 12.00 |
| 140 | 0.00 | 0.01 | 7.36 |
| 150 | 0.00 | 0.00 | 4.39 |
| 160 | 0.00 | 0.00 | 2.54 |
| 3.0mg/L | | | |

2

50m 100m 170m COD
 50m 322
 COD 100m 1254
 COD 170m 3494
 COD

6.2-5 COD mg/L

| | | | | | |
|---|------|---|------|---|------|
| | | | | | |
| 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

| | | | | | |
|------|--------|------|-------|------|-------|
| 50 | 0.00 | 100 | 0.00 | 200 | 0.00 |
| 100 | 0.00 | 200 | 0.00 | 400 | 0.00 |
| 150 | 0.03 | 300 | 0.00 | 600 | 0.00 |
| 200 | 0.23 | 400 | 0.00 | 800 | 0.00 |
| 300 | 2.19 | 500 | 0.00 | 1000 | 0.00 |
| 400 | 6.99 | 600 | 0.03 | 1600 | 0.02 |
| 500 | 14.30 | 700 | 0.10 | 2000 | 0.11 |
| 600 | 23.20 | 800 | 0.26 | 2600 | 0.64 |
| 700 | 33.10 | 900 | 0.54 | 3000 | 1.43 |
| 800 | 43.40 | 1000 | 0.99 | 3600 | 3.43 |
| 900 | 53.80 | 1500 | 6.22 | 4000 | 5.35 |
| 1000 | 64.10 | 2000 | 16.00 | 4600 | 9.07 |
| 1500 | 111.00 | 2500 | 28.80 | 5000 | 12.00 |

“ ”

“ ”

2

10-15cm

2mm

10^{-10} cm/s

10^{-10} cm/s

40mm

2mm HDPE

10^{-10} cm/s

GB18597-2001

10^{-7} cm/s

GB18599 2001

VOCs

VOCs

HJ964-2018

$$S=n(I_s \quad L_s \quad R_s)/(b \times A \times D)$$

S— g/k

I_s— g

L_s— g R_s—

g

b— kg/m³

A— m²

D— 0.2m

n— a

B

VOCs

0.012-÷

5.12mg/kg 10.24mg/kg 21.45mg/kg

VOCs 1 5 10 20

GB36600-2018

2

10^{-10} cm/s

“ ”

1

405m²

2

GB18599-2001

3

893t/a

4

HJ2025-2012

GB18597-2001

35

85%

6.2-8

/

1

“ ”

2

GB50493-2009



Ai5\$ Ô fF

1

$$V = V_1 + V_2 + V_{\max} - V_3$$

$V_1 + V_2$

1

350m³

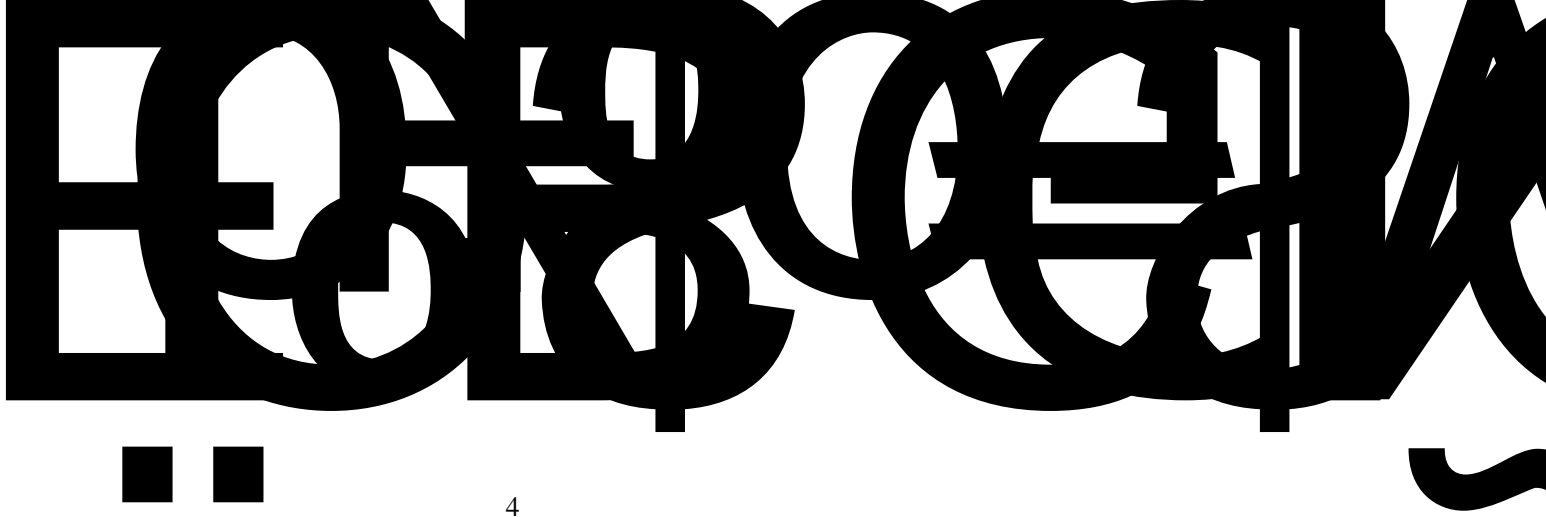
3

HJ 169-2018

/

6.2-9

| | | |
|--|-----------------------|--------------|
| | | |
| | | |
| | E 112.482105° | N 28.105557° |
| | 1 2 3 4 5 | |
| | 1 | |



4

5

1

100%

100%

100%

100%

100%

100%

50%

70%

2

0#

1

GB18918-2002 A

2

3

4

5

1

2.5m

2

GB12523-2011

6 00

22 00

2

3

4

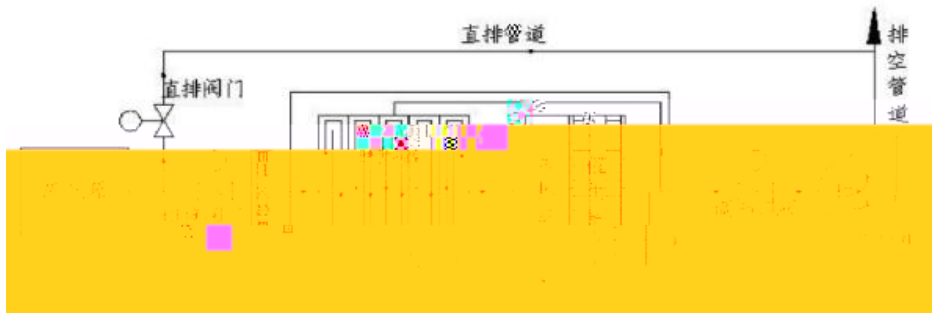
5



6

7

CO



7.2-1 CO

CO

200 400

CO

200-400

85%

95%

2.6~30mg/m³

5~30

20~1500mg/m³

CO

VOCs

CO

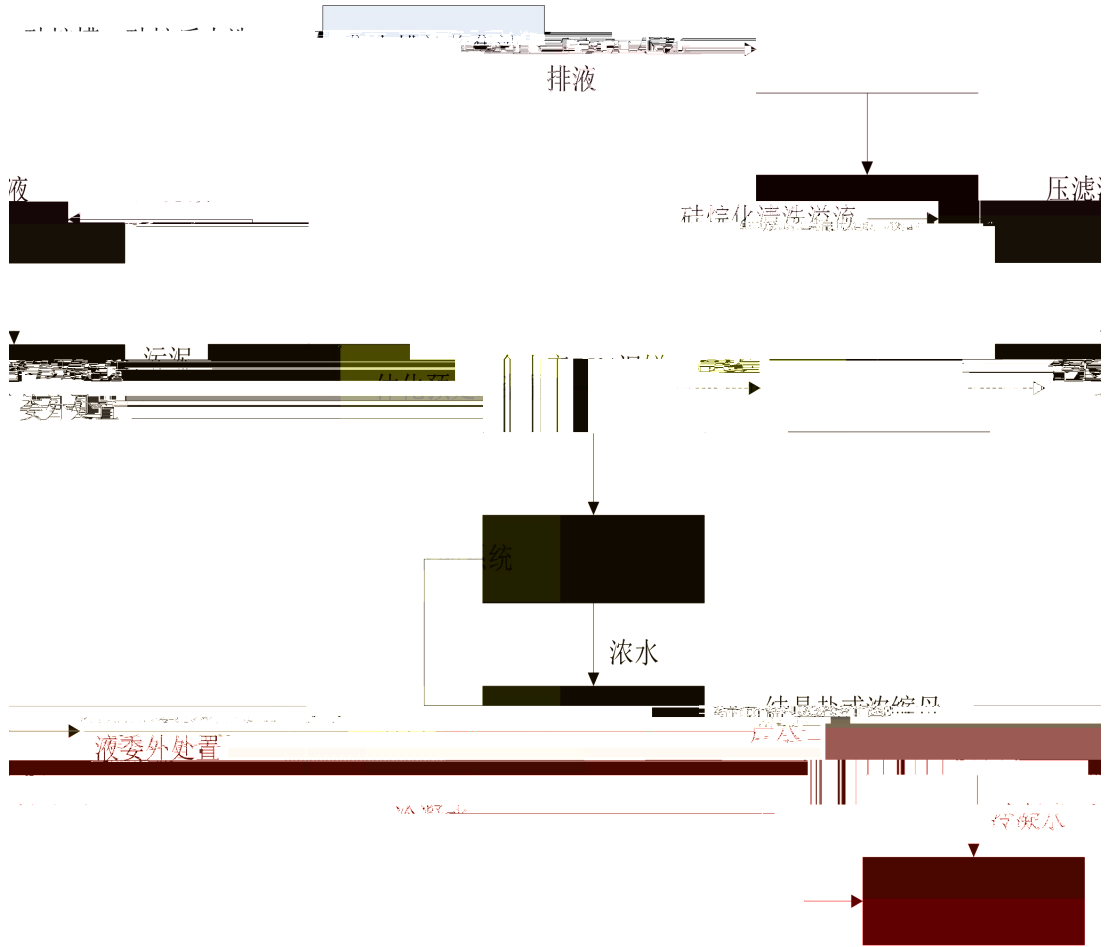
85%

HJ 971-2018

2

+

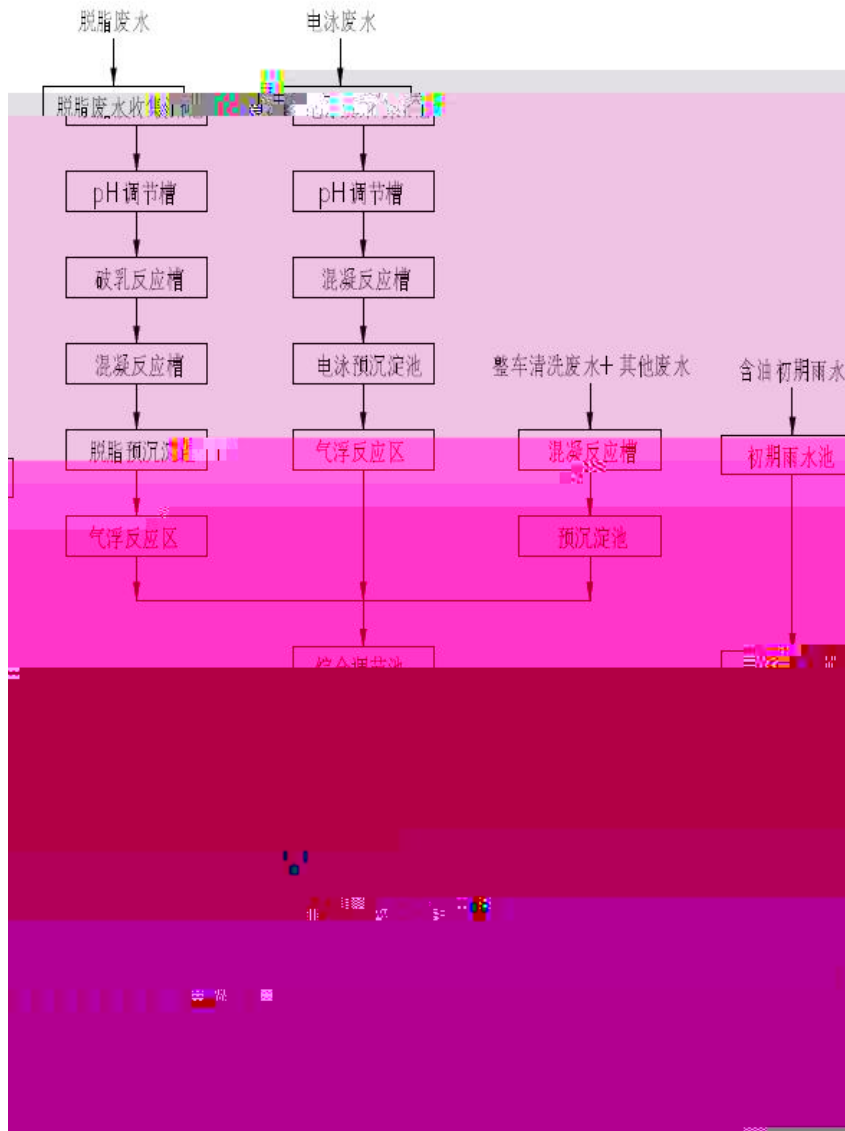
1



pH MBR MBR MBR SWRO MVR MBR SWRO

SWRO

SWR



28576m³/a 121.6m³/d

(GB18918-2002) IV (TN 10mg/L)

GB8978-1996

322t/d

0.2%

“

”

()

1

10

2

6.0m

$1.0 \times 10^{-7} \text{cm/s}$

1.5m

$1.0 \times 10^{-7} \text{cm/s}$

3

7.2-1

| | | | |
|---|--|--|---|
| | | | |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | / |

65~90dB(A)

10~40dB(A)

15~30dB(A)

3~15dB(A)

1

GB 18597-2001 2013

1999 5

2014 22

a

b

c

$1.0 \times 10^{-7} \text{cm/s}$

2mm

1m

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

d

e

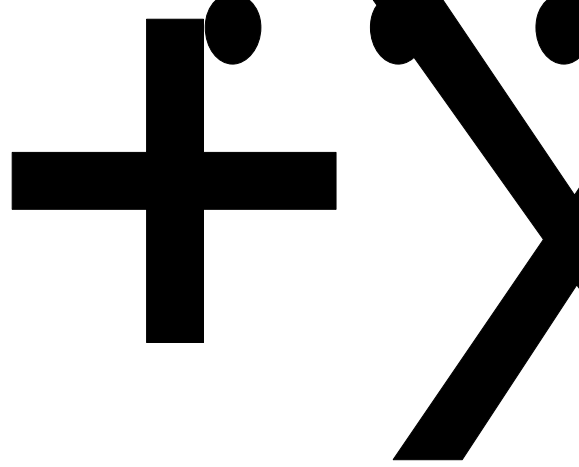
GB 15562.2

GB 8978

f



03



3

3130-88

JT 618

(2005 9)

JTJ

GB 13392-2005

1

2

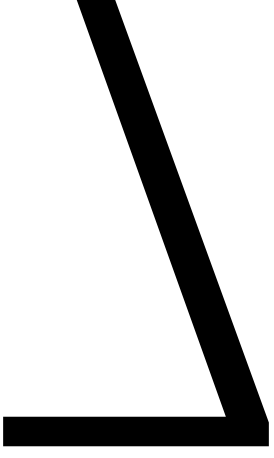
3

3800

577256

36.03%

6.96



1

2

3

4

5

| | | | | | |
|--|--|--|------------------|-------------------|-------|
| | | | | | |
| | | | 3 + | 90 | |
| | | | + | 20 | |
| | | | | | 2500 |
| | | | | 5 | |
| | | | | 30 | |
| | | | | 5 | |
| | | | | 100 | |
| | | | | 10 | |
| | | | | 50 | |
| | | | 1 2 3 4 | 350m ³ | 200 |
| | | | | / | 11610 |

1

2

3

4

2

1

2

3

4

5

6

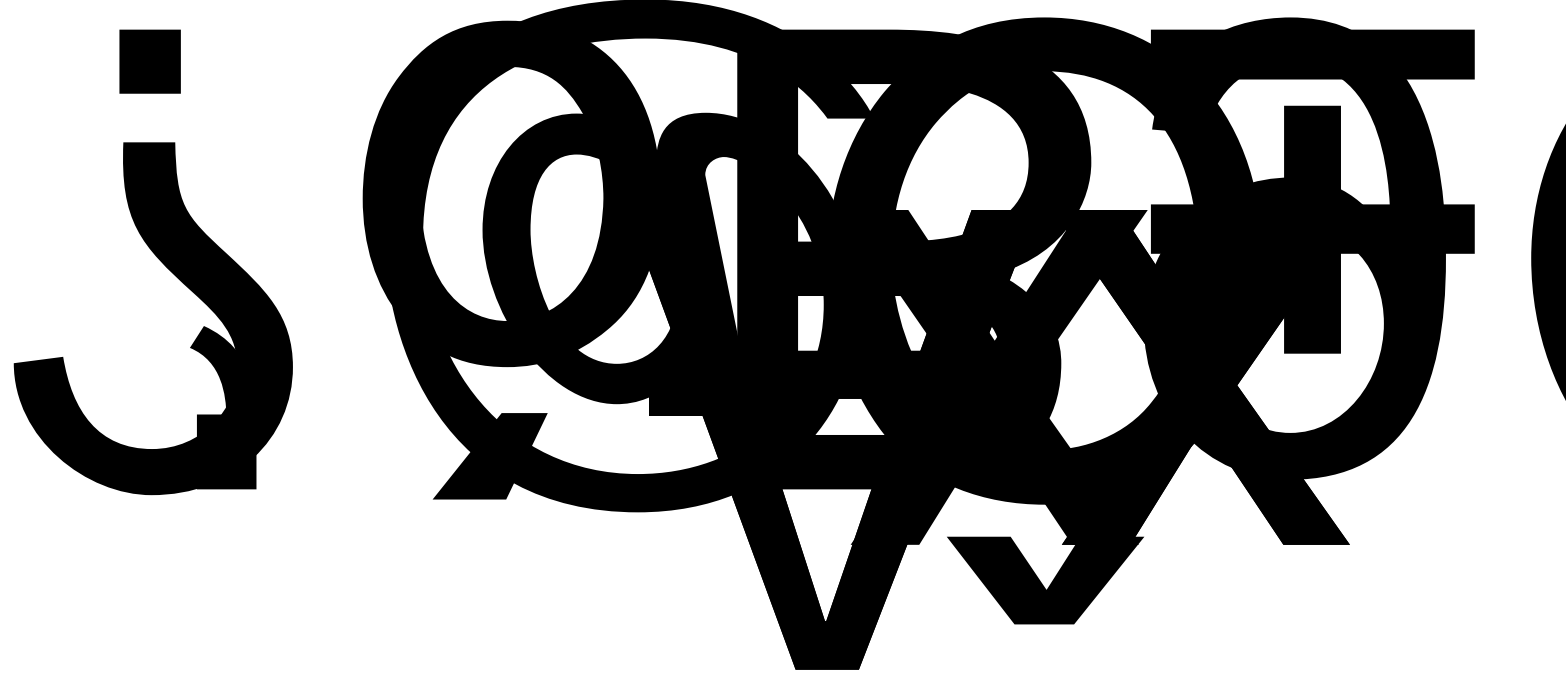
7

8

9



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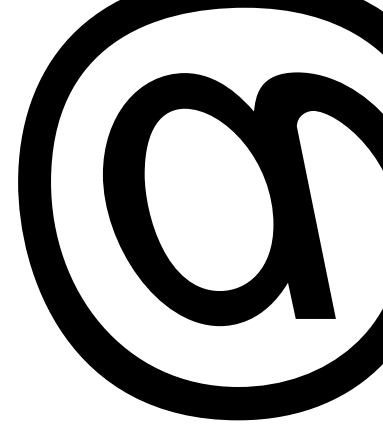
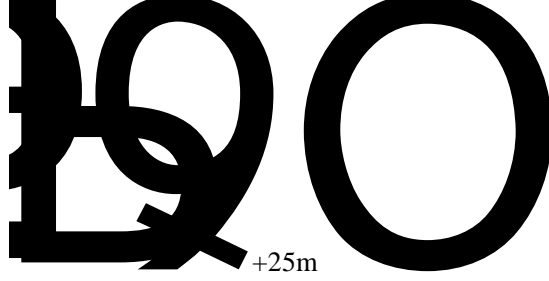


1

2

3

4



NMHC

+25m

+

+25m

+

+20m

1#

NOx SO₂

+20m

SO₂ NO_x

3#

NOx SO₂

+20m

GB13271-2014

3

6#

NOx SO₂

+20m

GB16297-1996

COD SS

TN

COD_{cr} BOD₅

SS NH₃-N

GB/T31962-2015 B

Leq A

4

/

/

\$

a "

W

3

4

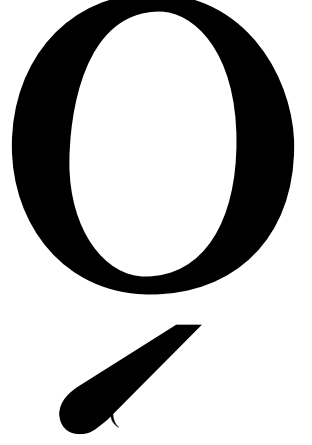
5

()

]

1

pH



pH

)

3

5

1

4

1

4

2

A

5

3

| | | | |
|--|---|---------------------|------|
| | | | |
| | |) (| |
| | | | 1 /5 |
| | | Leq A | 1 / |
| | DA001 DA002 DA004 DA006 DA007 DA009 DA011~DA015 DA018 DA019 | | 1 / |
| | DA005 | NMHC | |
| | DA016 DA017 | NMHC | |
| | DA020~DA022 | NOx SO ₂ | |
| | | NMHC | |

577256

11610

2.0%

932137.26m²

24

3800

3760h

| | | | | |
|-------------------|--------------------|------------------|-----------------|-----------------|
| | 2021 | PM ₁₀ | SO ₂ | NO ₂ |
| CO | 95 | O ₃ | 8h | 90 |
| | | GB3095-2012 | | |
| PM _{2.5} | | | | |
| HJ2.2-2018 | | | | HJ2.2-2018 |
| D | | | | |
| | 2mg/m ³ | | | |
| COD | | | | pH |
| | | | | GB3838-2002 III |
| | | pH | COD | |
| | GB3838-2002 III | | | |
| GB3838-2002 III | | | | |
| | | | | GB/T14848-2017 |
| III | | | | |
| | | | | |
| GB3096-2008 4a | | | | |
| | - | | | GB36600-2018 |
| | | | | GB |

15618-2018

GB12348-2008 4a

VOCs 1

5 10 20



+20m
+ +20m

NMHC + +
+25m
NMHC +20m
+ +20m
+ +20m

NMHC + +
+25m
+ +20m

+20m
NMHC + +
+25m 25m
+20m 2
+20m 2
+ +20m &

| | | | |
|--|--|---|-------------------|
| | | | |
| | | | |
| | | / | |
| | | / | |
| | | | 350m ³ |
| | | | |

1

2

3

4