	☐ ☑ ☐ ☐
	99
	40
	300 8 2400 1 3 40

	1 2 GB16297-1996 2 3 GB12348-2008 3

2-1

			mg/	/	t/a	
			285	4		

1

			3000t/a	3000t/a	

24666.8m^2

	6		NTD600B+ZL700B		1	1
	7	3000L	HYD3000		1	1
	8	1500L	HYD1500		1	1
	9		QZB5		2	

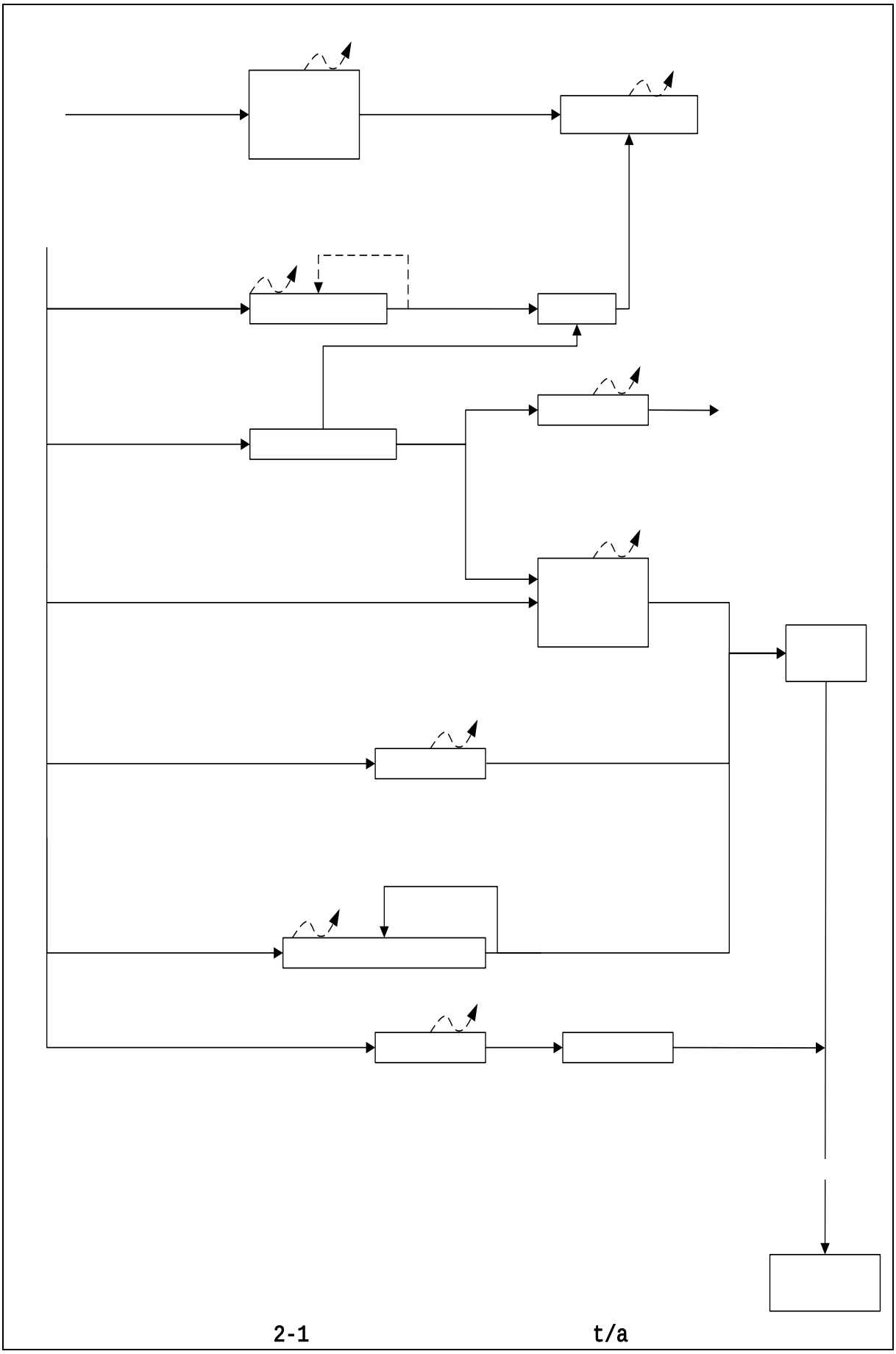
	32		300t/h		2	2
	33		/		3	3

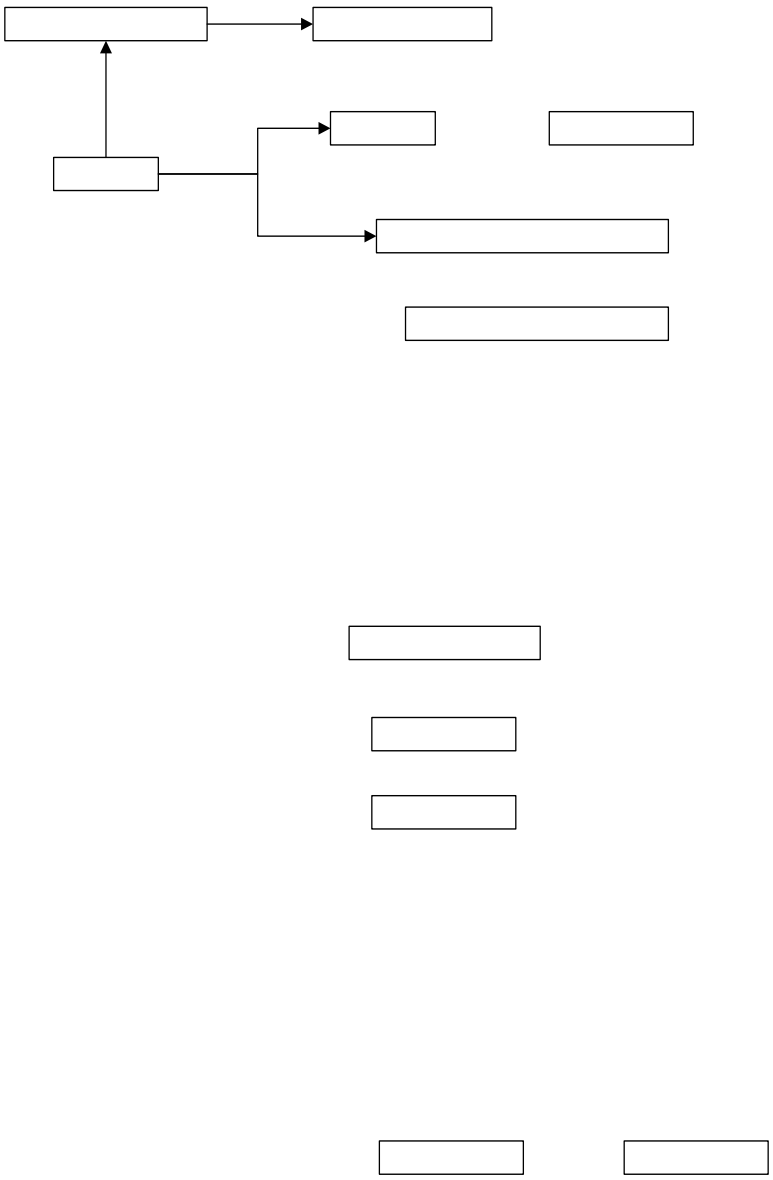
2-4

2-4

		/	kg	kg	kg

		/	21600	133	132
		/	108000	667	660
	100	/	108000	667	660
		/	5000	30.8	30.6
			63000	389	385
		/	270000	3000	2940
		/	48000	533	523
		/	30000	333	327
90		/	30000	333	327
		/	27000	300	294


2-1
t/a



2-2 t/a

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[2018]6 2.

[2015]256

2-5

2-6

2-5

2-6

[2015]256

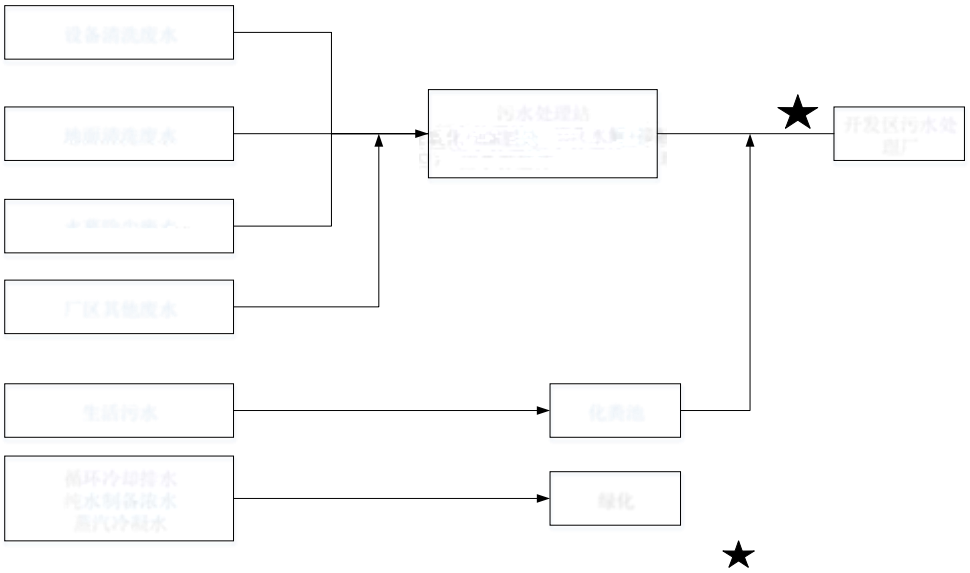
COD

42336.3 / 141t/d

150t/d

3-1

3-1



3-1

3-1

					t/a			
			COD SS		3600			

					800			
					96			
			COD SS		720			

1 15 FQ-05

1 15 FQ-08

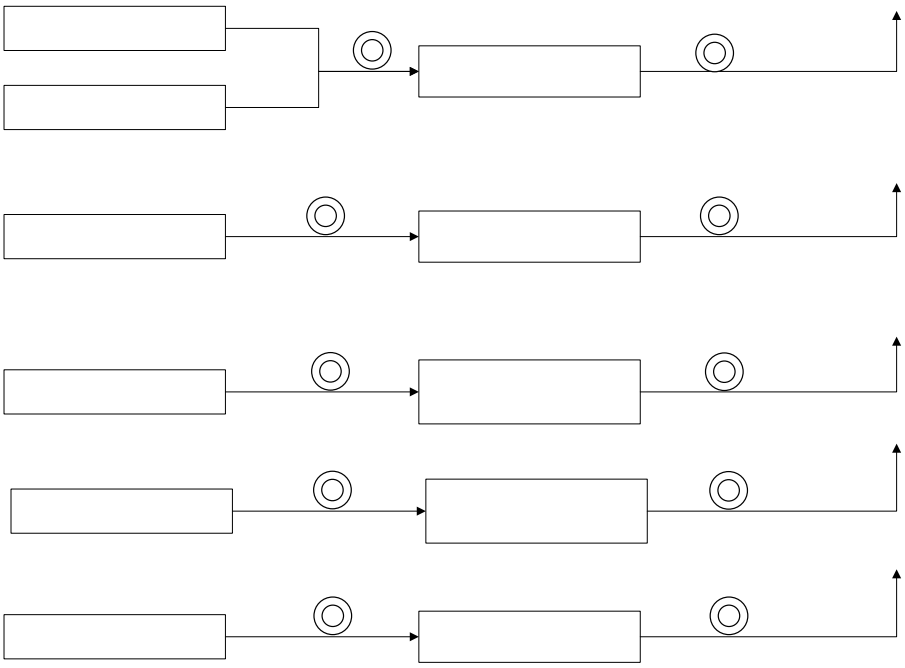
2 1

+ 2 15 FQ-06 FQ-07

1 15 FQ-04

3-2

3-2



3-2

3-2

				60min/d	+15	+15	

50min/d

	1			60min/d	+ +15	+ +15	
	2			60min/d	+ +15	+ +15	

	/		HW49 900-041-49	0.04	0.03		
			HW02 272-005-02	1.06694	0.95		
			/	0.3	5		

/

					15	20

1

2

1 : 100%

99% + 99.5%

GB16297-1996 15m

2 :

5576t/a

3 :

20-25dB A

3

4

3

:

1

2

99

40 6321 650

" " :

1

;

2

; ;

+ ;

(GB16297-1996)

2

3

(GB12348-2008)

3

4

; ; /

(GB18597-2001)

5

	(GB18597-2001)	
5		
6	): ≤5576 30315 COD≤1.586 8.936 NH_3-N≤0.032(0. 392) COD≤0.558 3.028 NH_3-N≤0.032(0.392) : ≤0.00506 0.00706)	5216 / COD_{Cr}0.871 / SS 0.183 / 0.029 / 0.0028 / 42336.3 / COD_{Cr}7.070 / SS 1.482 / 0.238 / 0.023 / 0.0047 /

10%

5-2

	2001108)			
SS	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/

GB/T16157-1996

HJ/T373-2007 HJ/T397-2007

6-1 2 3-1

6-1

		/	/			
	S1		+ + +MBR	pH COD SS NH3-N TP		4 / 2
	S2	/	/	pH COD SS	/	1 / 2
	S3					

6-2 2 3-2

6-2

		/	/			
	Q1					3 / 2
(FQ-04)	Q2					
	Q3					
	Q4					

(FQ-05)

6-4		
	mg/L,pH	
pH	6-9	
	500	
	400	
	35	
	3.0	

GB16297-1996 2

GB16297-1996 7.2

2

h-

h_1,h_2- 1 2

$Q=Q_1+Q_2$

Q-

Q_1,Q_2 1 2

GB16297-1996 7.1

200m 5m

50%

15m, 200m

5m 50%

6-5

6-5

JSGHEL2019200

2019 3 21 2019 3 22

75% “ ”

7-1 7-2

7-1

			/	/	/	%
2019 3 21	1		4.8	0.0667	0.0652	97.8
	2		6.0	0.0667	0.0654	98.0
2019 3 21	1		4.8	0.0667	0.0652	97.8
	2		6.0	0.0667	0.0654	98.0

7-2

			%	kPa	m/s	
2019 3 21		/	/	/	2.4	
2019 3 22		/	/	/	2.1	

7-3

7-3

(mg/L)

+ FQ-07 Q8 FQ-08 Q10

16297-1996 2

16297-1996 2

92.6% 96.0%

95.9% 98.3% 1

+ 93.7% 96.0% 2 +

92.4% 95.0%

93.8% 97.0%

7-4 7-5

7-6 2 3-2

7-1 7-2

7-4

	3 22	mg/m^3						
		kg/h	8.97×10^{-3}	9.54×10^{-3}	1.09×10^{-2}	9.54×10^{-3}	/	/
Q4	2019 3 21	mg/m^3	1.2	1.1	1.2	1.2	120	
		kg/h	2.34×10^{-4}	2.26×10^{-4}	2.46×10^{-4}	2.46×10^{-4}	1.75	
FQ-05	2019 3 22	mg/m^3	1.8	1.3	1.6	1.8	120	
		kg/h	3.67×10^{-4}	2.52×10^{-4}	3.25×10^{-4}	3.67×10^{-4}	1.75	
Q5 1 +	2019 3 21	mg/m^3	15.0	12.5	15.7	15.7	/	/
		kg/h	0.134	0.112	0.141	0.141	/	/

2019 3 22 mg/m^3

+		kg/h						
FQ-07	2019 3 22	mg/m^3	1.5	1.4	1.1	1.5	120	
		kg/h	3.57×10^{-3}	3.43×10^{-3}	2.65×10^{-3}	3.57×10^{-3}	1.75	
Q9	2019 3 21	mg/m^3	13.0	16.0	17.0	17.0	/	/
		kg/h	6.50×10^{-2}	7.84×10^{-2}	8.42×10^{-2}	8.42×10^{-2}	/	/
	2019 3 22	mg/m^3	13.6	14.4	16.8	16.8	/	/
		kg/h	6.97×10^{-2}	7.27×10^{-2}	8.57×10^{-2}	8.57×10^{-2}	/	/
Q10	2019 3 21	mg/m^3	1.1	1.1	1.1	1.1	120	
		kg/h	2.88×10^{-3}	2.95×10^{-3}	2.88×10^{-3}	2.95×10^{-3}	1.75	
FQ-08	2019 3 22	mg/m^3	1.6	1.4	1.3	1.6	120	
		kg/h	4.29×10^{-3}	3.71×10^{-3}	2.57×10^{-3}	4.29×10^{-3}	1.75	

7-5 **kg/h**

FQ-05						
%	98.3	98.1	97.9	95.9	97.4	97.0
Q5 1 +	0.134	0.112	0.141	0.140	0.126	0.142
Q6 1 + FQ-06	6.27×10^{-3}	5.16×10^{-3}	5.59×10^{-3}	6.51×10^{-3}	7.96×10^{-3}	6.95×10^{-3}
%	95.3	95.4	96.0	95.4	93.7	95.1
Q7 2 +	4.45×10^{-2}	4.25×10^{-2}	5.51×10^{-2}	6.38×10^{-2}	6.26×10^{-2}	5.25×10^{-2}
Q8 2 + FQ-07	3.39×10^{-3}	2.91×10^{-3}	3.05×10^{-3}	3.57×10^{-3}	3.43×10^{-3}	2.65×10^{-3}
%	92.4	93.2	94.5	94.4	94.5	95.0
Q9	6.50×10^{-2}	7.84×10^{-2}	8.42×10^{-2}	6.97×10^{-2}	7.27×10^{-2}	

2019 3 21 2019 3 22

59.3dB(A)

GB12348-2008 3

7-7

7-7

				dB(A)	dB(A)		
2019 3 21	Z1	1		55.5	65		
	Z2	1		59.3	65		
	Z3	1		52.3	65		
	Z4	1		52.3	65		
	Z5	1		52.0	65		
	Z6	1		55.8	65		

2019 3 22

“ ”

FQ-04 Q2

FQ-05 Q4 1 +

FQ-06 Q6 2 + FQ-07 Q8

FQ-08 Q10

16297-1996 2

16297-1996 2

92.6% 96.0%

95.9% 98.3% 1

+ 93.7% 96.0% 2 +

92.4% 95.0%

93.8% 97.0%

59.3dB(A)

GB12348-2008 3

/

/

1

“ ”

( ) ( ): ( )

					/			99		
	( )	[C2720]				/		118°88'65" 32°14'05"		
		40			40					
					[2017]99					
		2017 11			2018 12 1			/		
								/		
	( )	42151		( )	650	(%)		1.54		
	( )	45720		( )	695	(%)		1.52		
	( )	/	( ) /	( ) /	( )	/	( )	/	( )	/
		/			/			/		
					/			2019 5 21		

(1)

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