

EM/XFHG-2016-001

2016

2016



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2016    \_\_\_\_\_

2016    \_\_\_\_\_

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1	.....	1
1.1	.....	1
1.2	.....	1
1.3	.....	3
1.4	.....	3
1.5	.....	3
2	.....	5
2.1	.....	5
2.2	.....	6
2.3	.....	15
3	.....	18
3.1	.....	18
3.2	.....	18
3.3	.....	20
3.4	.....	20
4	.....	21
4.1	.....	21
4.2	.....	21
4.3	.....	22
5	.....	25
5.1	.....	25
5.2	.....	26
5.2	.....	28
5.3	.....	30
6	.....	31
6.1	.....	31
6.2	.....	34
6.3	.....	38

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6.4	.....	41
6.5	.....	42
6.6	.....	42
7	.....	46
7.1	.....	46
7.2	.....	47
8	.....	49
8.1	.....	49
8.2	.....	49
8.3	.....	49
8.4	.....	50
8.5	.....	50
9	.....	52
9.1	.....	52
9.2	.....	55
10	.....	57
10.1	.....	57
10.2	.....	57
10.3	.....	58
11	.....	!
1	.....	!
2	.....	!
3	.....	!
4	.....	!
5	.....	!
6	.....	!
7 LNG	.....	!
1		
2		

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3

4

5

6

7

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# 1

## 1.1

1

2

3

## 1.2

### 1.2.1

1

9

2

32

3

87

4

31

5

69

6

13

7

6

8

591

9

G-6(1989]1)] TJ ET EMC /P <</MCI

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41		
18		45
19	[2009]130	
20	34	
21		
[2012]77		
22		[2012]98
23		
[2015]4		
24	17	
25	2014 119	
26	HJ589-2010	
27	2014 34	
28	DB37/1996-2011	
29	2014 15	
30	120 2012.5.31	
31		
32		
	2012 85	
33		
[2009]80		
34		[2007]22
35	2012.5.16	
36		
37		

**1.2.2**



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### 1.3

1

2

3

4

5

6

### 1.4



### 1.5

1

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2

3

4

5

6

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2

2.1

40  
2005 1 6

3km

47.3

98

40 51.6 1632 137

9

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1

4

## 2.2

1

### 2-1

		t/a		
1	t/a	40		99.99
2	100 t/a	144.56		98 93
3	t/a	12.9498		99.99
4	t/a	388.017		99.99
5	t/a	8307.96		23
6	t/a	3917.8		50
7	t/a	1042		99.95
8	t/a	218.8		98.5
9	Nm <sup>3</sup> /a	1.188×10 <sup>7</sup>		O <sub>2</sub>
10	Nm <sup>3</sup> /a	7.2×10 <sup>6</sup>		99.999 Ar

2

[2009]116

2011 140

3

2-2

2-2

1		t/a	1520557	
2		t/a	230239	
3		t/a	3320	
4		t/a	28604	
5		t/a	3000	
6		Nm <sup>3</sup> /a	443×10 <sup>6</sup>	
7		t/a	8852	0.5%
8		t/a	6000	
9		t/a	240	
10		t/a	18	
11		t/a	14	
12		t/a	6	HCl31%
13		t/a	22	100%HNO <sub>3</sub>
14		t/a	10.8	
15		t/a	10.86	
16		t/a	940	
17		t/a	63	
18		t/a	400	
19	98%	t/a	12.2	
20		t/a	334	
21		t/a	10	
22		t/a	91	
23		t/a	330	
24	98%	t/a	1184	
25		t/a	220	

26		t/a	2376	
27	Z-200	t/a	133	
28	2#	t/a	85.6	
29		t/a	5400	
30		m <sup>3</sup> /a	130	
31		t/a	2990	
32		t/a	10	
33		t/a	120	
34		t/a	210	
35		t/a	160	
36		t/a	140	
37		t/a	241	
38		t/a	53.5	
39		t/a	7.3	
40		t/a	5.28	
41		t/a	10.56	
42		t/a	2.4	
43		m <sup>3</sup> /d	41.5	
44		t/a	6	98.5%
45		t/a	100	3%
46		t/a	1.06	98.5%
47		t/a	1.06	98.5%
48		t/a	1.52	99.5%
49		m <sup>3</sup> /a	120	99.6%
50		t/a	120	92%

51		t/a	100	98%
52		t/a	170	30%
53		t/a	51	
54		t/a	200	3%
55		t/a	172	
56		t/a	20	
57		t/a	120	20%
58		t/a	4	31%
59		t/a	4	30%
60		t/a	0.4	
61		t/a	0.3	
62		t/a	1	
63		t/a	3.2	
64		t/a	0.4	
65		t/a	1	
66		t/a	180000	1.04g/cm <sup>3</sup>
67	M	t/a	1630	
68	HCl	t/a	10	31%
69		t/a	180	30
70		t/a		85%
71		t/a	2.6	NH <sub>3</sub> 420%
72		t/a	4.2	
73		t/a	1.3	99.99%

4

2-3

2-3

			)	
1			22	

2		B=1000,L=2500+6500mm N=3+2.2kW	22	
3	4	B=800,L=119400mm	2	
4		v=250t	1	
5		48600m <sup>3</sup> /h 1732m <sup>2</sup> 1770Pa 200 99.97%	1	
6			1	
7		Q=63.6t/h;P=5.4MPa;T=27	1	
		L225000×W3000×H5000	1	
9	FSF	:LD60m2-4-7 60m2 47120(N)m <sup>3</sup> /h                      350 -2500Pa	1	100g/(N) m3,

10



28	2	1780m2 1.1r/min,0.4-1.6r/min 200 )	1	
29		200T	1	
30		FFGM125-2×7	1	
31		145t/h	2	
32		1.0 10t/h	1	
33		Q=135t/h	1	
34		SLDC-32 75Kw 160t/h 7.5Kw*4 ±1%	2	
35		LD60 -4-7	1	
36		GW-2R2000F 2000mm;990rpm; 630kW	2	
37		LM31.3 100t/h	1	
38		FFGM104-2×18	1	
39		120t/h 200m 55m 15m3 DN300	2	
40		HC-2R2450F 2450mm 1480rpm 2250kw	1	
41		HC-D1100	2	
42		18890 FRP	2	
43		FRP	2	
44		FRP	2	
45		SDDH-23 C-FRP	12	
46		321SS 304SS	2	
47		2.5MPa 7.06t/h	4	
48		40473KKXGSE80500 GL360 10.788~1.209m3/S P=2.04~21.51kPa Pw=268.9KW n=2990r/min	2	
49		Q235	2	
50		6500×17920	2	
51		5498×15563	4	
52		GNFS3-2500 Q 2500m³/h t1=42 t2=32	9	
53		FRP	4	

54			4	
55			4	
56		PF7.9/12.6M4 40	2	
57			2	
58		PF7.9/12.6M4 40	1	
59		24m <sup>3</sup>	12	
60			6	
61		14m <sup>3</sup>	4	
62		14m <sup>3</sup>	4	
63		H=1700×1700×1800mm	12	
64		D-05 4mm .2600mm H2600mm	2	
65		ANF-144P-190P-LA .1900×L5732mm	4	
66	5000t	-A	24	
67		GZT1300*6000	1	
68		PD75150	1	
69			2	
70			2	
71		CF300-1.54	3	
72		HTG-60	8	
73		PF22/32M1 45	1	
74		10t-25.5m	4	
75		5840×1170×1400/1600 FRP	1440	
76		500 /h	2	
77		450 /h	1	
78		JCB1115-450	1	
79		BF4-72 No.10C ( )	3	
80		12000x60000x2800	6	
81		12000x6000x2800	4	
82		BSG- -25,L=25000m <sup>3</sup> /h, 30-40	19	
83		PBF6.0M2/625	1	
84		CD130A9-87	2	
85		K-10000L	5	

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86		EPCM-SP500 CSM	2	
87		450 /	1	
88		JCB1115-450	1	
89		35.t4*31.5m	2	

90

		PO/CS		
126			1	
127	S-63	DMF-RF1-6-A	1	
128	S-69	:VSF30/28/800,	1	
129		PO/CS	1	
130		0.3M3                      0.6MPa	1	
131	2#	0.1M3                      0.6MPa	1	
132		JW-RPP-25-20 40PP-8                      0.098MP	1	
133		JXD45A	5	
134		XAZ20/720-UK,	4	
135		JXD45A	6	
136		XAZF40/720-U	1	
137		XAZF40/720-U	1	
138		GT109 L3 K1	1	
139		TDZ30	2	
140		15.6 re W* n /P <<Λ		

2.3

2.3.1

HJ/T 169-2004

2015

GB12268-2012

8.1

2.1

2.2

2.3

6.1

5.1

2.3.2

2-4

	SO <sub>2</sub> NO <sub>x</sub> Cu Pb As Hg Cd Sb Ag Zn	+	1 100m 1#
		+	1 100m 2#
		+	
	SO <sub>2</sub> NO <sub>x</sub> Cu Pb As Hg Cd Sb Ag Zn	1	
		+	
		+	
		--	
		+	1 31m 3#



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		SS COD		
		SS COD	--	


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**3**

**3.1**

[2014]34

Q

M

E

**Q3M2E1**

**3.2**

**1**

2015

3-1

**3-1**

		UN		CAS
		1971	21007	74-82-8
	LNG			
98% 93%	5000m <sup>3</sup> /	1830	81007	7664-93-9
	250m <sup>3</sup> /	1789	81013	7647-01-0
		1823	61821	62-56-6



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	2m <sup>3</sup> /	2031	81002	7697-37-2
		1823	82001	1310-73-2
			61507	1317-36-8
		1079	23013	7446-09-5
		1829	81010	7446-11-9
		1053	21006	7783-06-4
		1849	82011	7757-83-7
		1778	81025	16961-83-4
		1498	51055	7631-99-4

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**3.3**

**3.4**

2m  
30cm

4000m<sup>3</sup>

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**4**

**4.1**

**4-1**

**4.2**

1

2

3

## **4.3**

### **4.3.1**

### **4.3.2**

1

2



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6


7


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# 5

## 5.1

1

2

3

2

DCS

DCS

DCS

DCS

DCS

DCS

DCS

I/O

DCS

PLC

I/O

I/O

1

PLC

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## 5.2

1

GB50160-2008

2

LNG









1

2

3

**3**

**5.2.3**

1

2

3

4

5

**3**

6

---

7

8

## **5.3**

### **5.3.1**

### **5.3.2**

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**6**

**6.1**

**6.1.1**

1

2

**6.1.2**

1

2

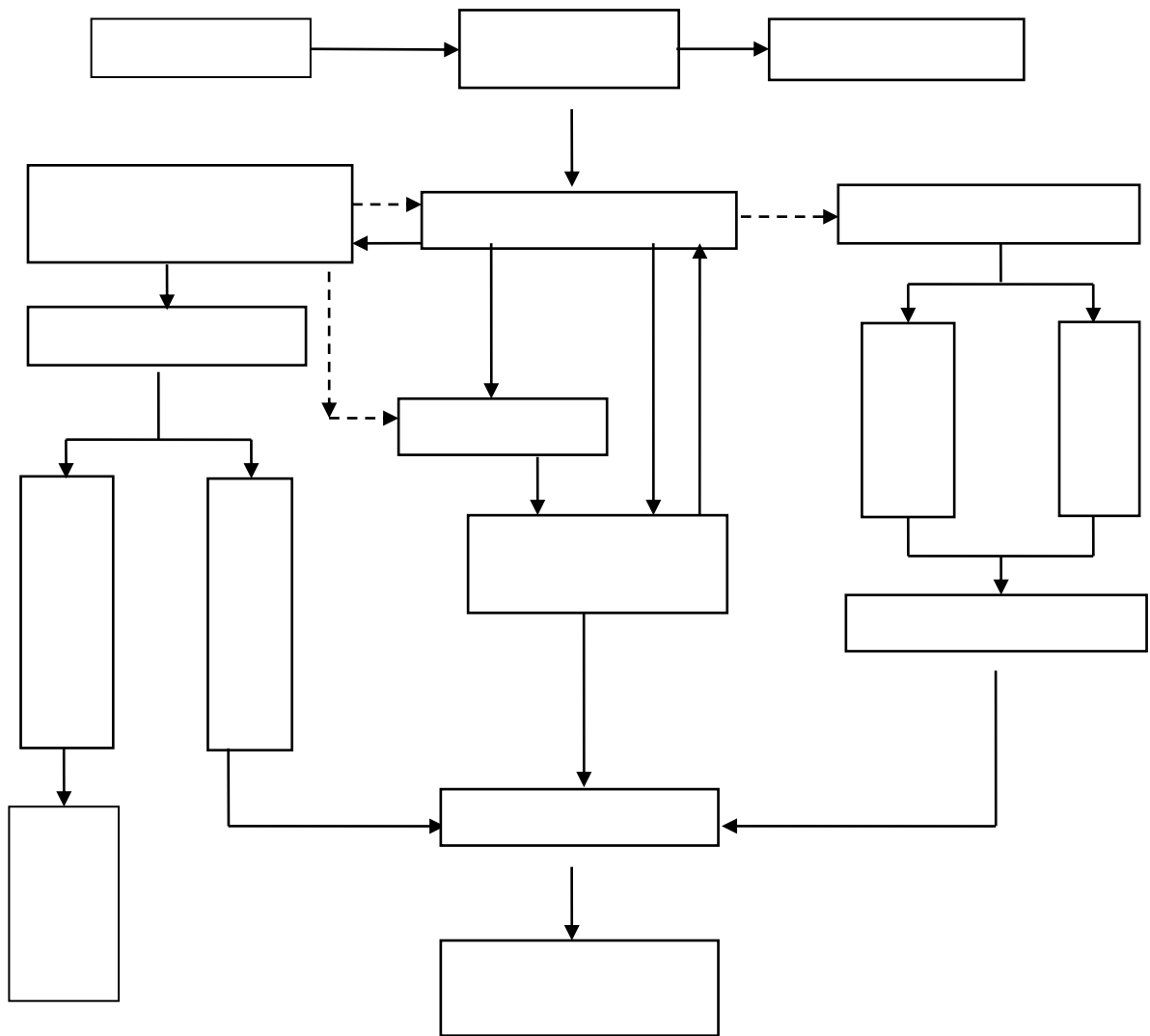
3

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### 6.1.3

1

2



6-1







2

3

**6.2.3**

DCS

DCS

DCS

DCS

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DCS

DCS

DCS

I/O

ABB ACF800

DI/DO AI/AO

2000

SO<sub>2</sub> SO<sub>3</sub>

SO<sub>2</sub>

DCS

PLC

I/O

I/O

1

PLC

**6.2.4**

**6.2.5**

1



2

/

4000m<sup>3</sup>

4000m<sup>3</sup>

3

/

/

2008

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## **6.2.6**

## **6.3**

### **6.3.1**

6.3.1.1

6.3.1.2

### **6.3.2**

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5

**6.3.3**

- 1
- 2
- 3
- 4

**6.3.4**

6.3.4.1

- 1
- 2

6-1

**6-1**

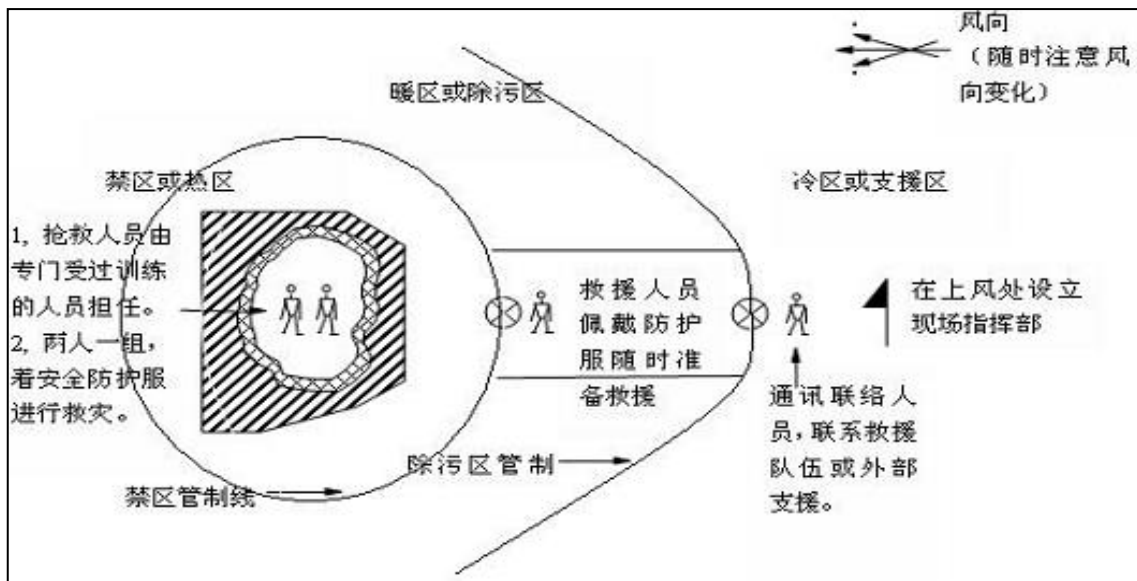
		( )
		( )
		( )

		( )
		( )

3

6.3.4.2

6-2



6-2

6.3.4.3

1

2

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6.3.4.4

1

2

3

6.3.4.5

1 /

2 /

3

## 6.4

### 6.4.1

SO<sub>2</sub> NO<sub>x</sub>

COD

pH

6

### 6.4.2

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## 6.5

1

2

3

## 6.6



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**6.6.1**

1

2

**6.6.2**

1

1

1

30

6-3

43

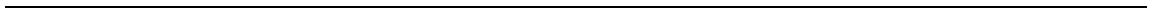


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2  
**6.6.3**

**3**

**6.6.4**





/ / / /

## 7.2

1

2

3



4

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**8**

**8.1**

7

**8.2**

**8.3**

1

2

24

3

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## 8.4

4

## 8.5

1

2

3

4

5

1

2







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6

**3**

1

2

3

4

5

6

7

**9.1.2**

1

2

3

**1**

4

1

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2

1

2

3

3

4

---

## **9.2**

### **9.2.1**

1

2

3

4

### **9.2.2**

1

2

3

4

5



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## 10

### 10.1

1

2

3

4

500

5

6

7

8

### 10.2

1

2

