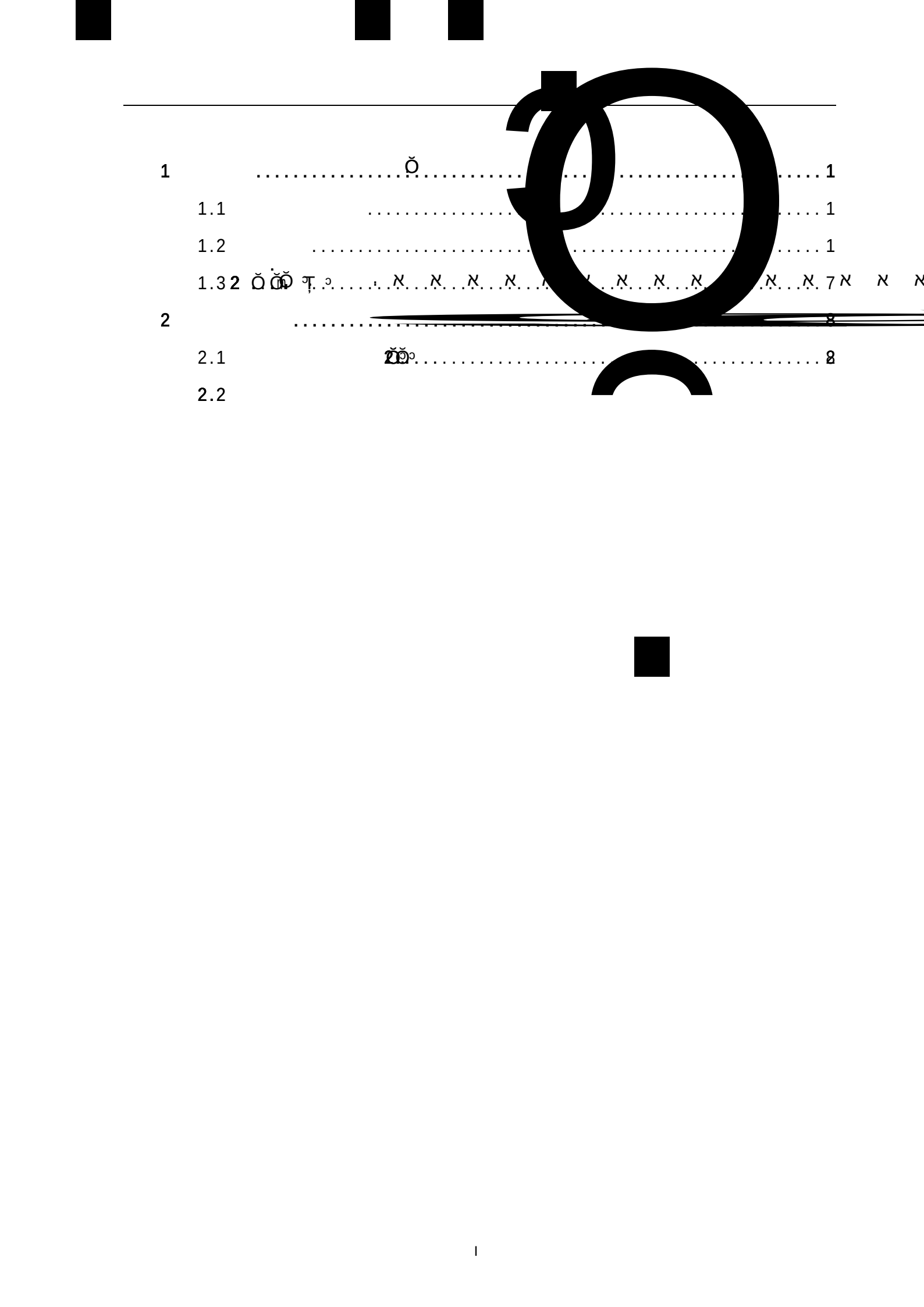
7

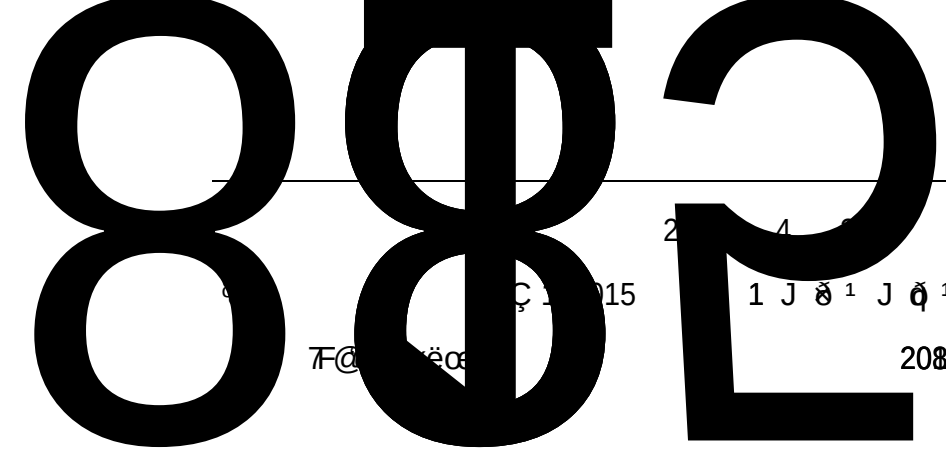
“

”

“ ”

1 Ŏ 1
1.1 1
1.2 1
1.3 7
2 8
2.1 8
2.2





91 2018 3 1

20 [2007]

16

21 2016 88

إ ء ژ

33

[2011]142

34

[2011]95

35 < >

[2014] 114

36 < >

[2022]136 2022 11 21

37 (

[2017]5

1.2.2

1 GB50603-2010

2 GB 50414-2018

3 AQ2001-2018

4 YB/T 4978-2021

5 GB50721-2011

6 20kV GB50053-2013

7 GB2894-2008

8 TSGZF001-2006

9 GB50348-2018

10 GB2893-2008

11 GB50054-2011

12 GB/T 25295-2010

13 GB50171-2012

14 1 GB/T5959.1-2019

15 GB50056-1993

16 ɔ GB5959.8-2007

17 GB12158-2006

18 ɔ GB 39800.1-2020

19 3 GB 39800.3-2020

20 GB7231-2003

21 GB 50019-2015

22 GB50316-2000[2008]

23 GB4387-2008

24 GB50187-2012

25 1 GBZ2.1-2019

26 2 GBZ2.2-2007

27 GB50052-2009

28 1 GB4053.1-2009

29 2 GB4053.2-2009

Ä30

45 GB/T6441-1986

46 1 GB/T6067.1-2010

47 GB8958-2006

48 GB/T12801-2008

49 GB/T13861-2022

50 GB/T29639-2020

51 GB5083-1999

52 GB/T13955-2017

53 GB/T50493-2019

54 GB50055-2011

55 GB18218-2018

56 GB6944-2012

57 GB 14050-2008

58 GB15630-1995

59 GB50974-2014

60 GB55036-2022

61 - TSGD0001-2009

62 GB/T 50387-2017

63 1 JB/T7688.1-2008

64 GB/T3766-2015

65 GB17914-2013

66 GB/T13869-2017

67 GB12358-2006

68 AQ8001-2007

69 AQ8003-2007

1.2.3

1.2.4

1

2023 3

2

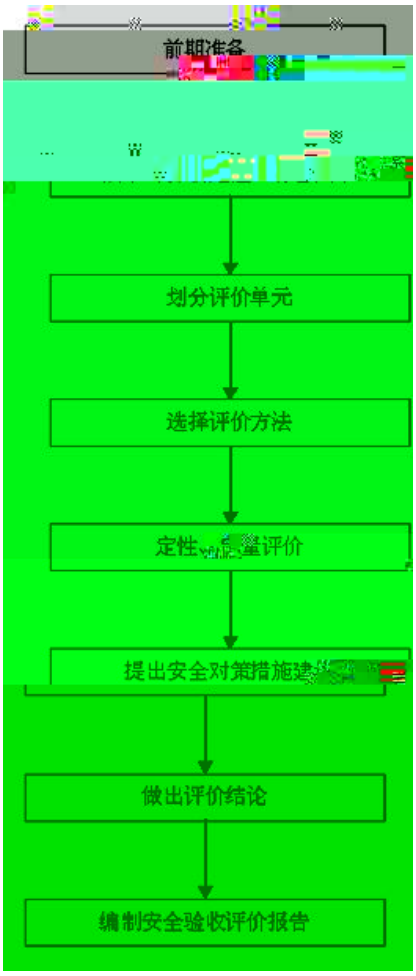
2023 5

3

1.2.5

1.3

1-1



1

18

$1.444 \times 10^5 m^2$ 76km

70km 58km 30km 38km

3km

2.3.1-1

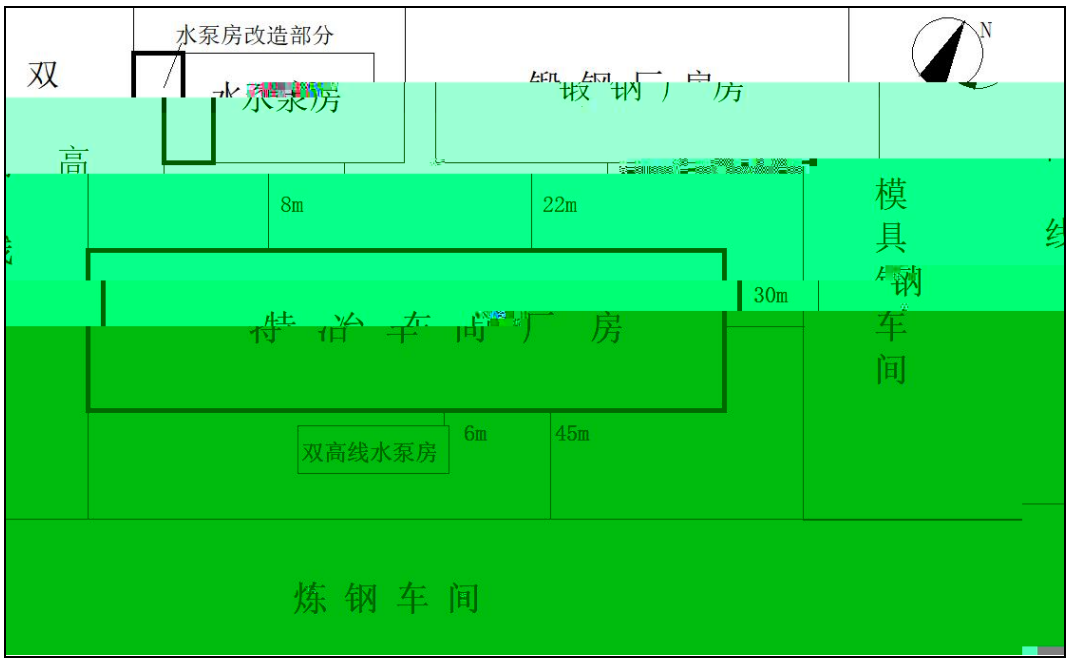
2.3.1-1

2 Å

22m 45m

1

30m j



2.3.1-2

2.3.1-1 m

1			2018 3.4.7	6	8
2			2018 3.4.1	10	22
3			2018 3.4.8	6	6
4			2018 3.4.1	10	45
5			2018 3.4.1	10	30

9486m² 186.00m 51.00m

AB 6m 12m 10m 14m 2.3.1-3

10t 8# 10t 9# A-B 1-3

2-3 6m 1-2 5t 10# 11#

3# 5# B B 10t

12# 11# A-B 12-13 7t 13# 14#

A 16 -17 2

2.3.1-3

13# 14# 36t

B-C

A-B

1.5m

0.8m

0.2m

1Lx “ ”

1m

1m

2.3.2

7

3556.09 22620t/a

2024

2.3.3

2

1 2.3.3-1

2.3.4

2

2.3.4-2

2.3.5

1

A

8m 15m

A 4-5 70m² 4m

1# 14m

20m

2.3.6

2.3.7

3556.09 480

13.50%

2.3.8

2.3.9

1

10.9

-18.8

35.3

-9.8

-13.0

-3.9

26.3

29.0

1013.9hPa

997.8hPa

56%

71%

24.9

5.6m/s

NNE 15%

NNE

20 50

15 30

3

10km² 42 444.9km

50km²

12 1308km²

25 28 15km

10m 1000m 2m

4

0.15g

2.4

2.4.1

2.4-1

	(m)	(m)	(m)			
	186	21	12			
	186	30	12 21.5			

1

±0.000 0.5m

400mm 1/15 1/200

2

3

100Lx 2

4

7#

5

7

2.4-2

6

3 1# 7# 3

5000㎥/h 6000㎥/h 6000㎥/h

3 5t 1 1 10t 30t 1

2 100t 36t 1 3

7

1

2

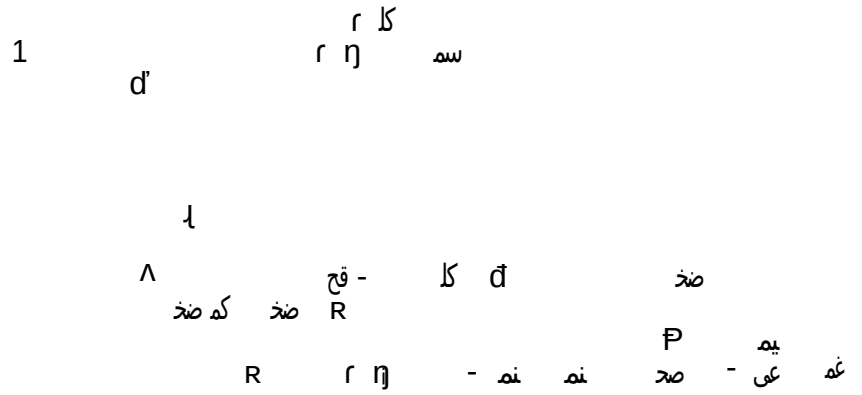
3

2022 12

2.6

2.7

2.8



3.

3.1

3.2

3.2.1

B

1

2

3.2.4

3.2.5

3.3

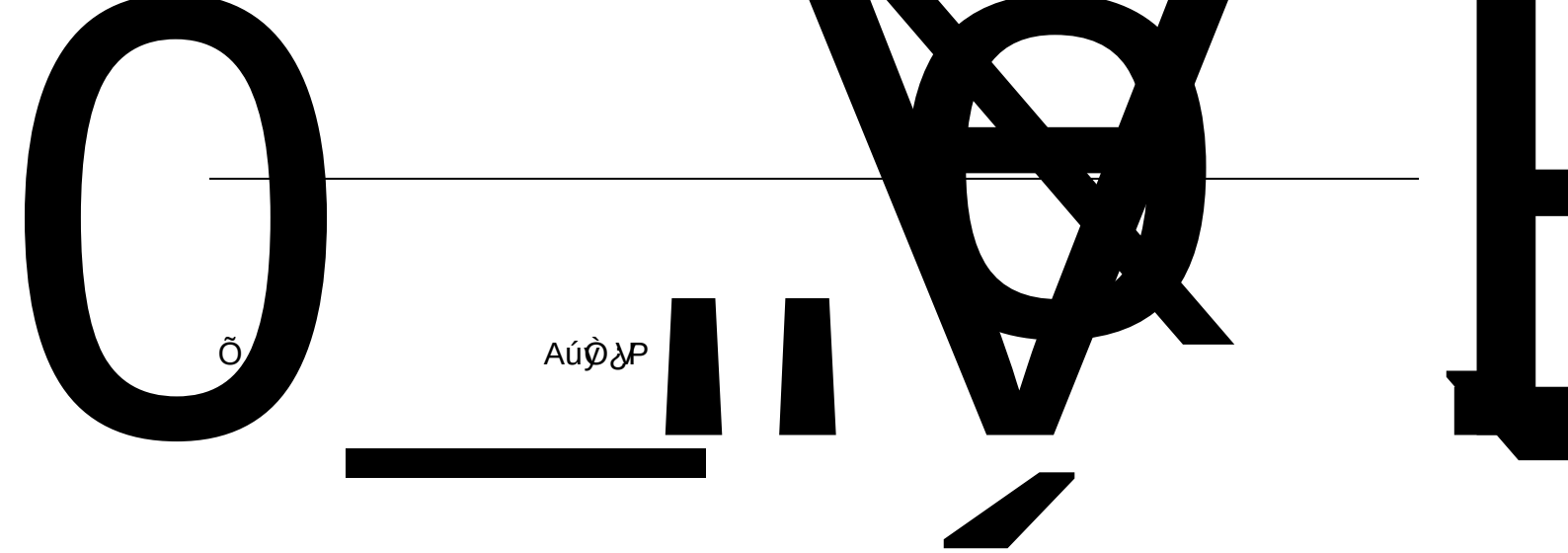
3.3.1

0.6MPa

3.3-1

				Argon
	CAS No.	7440-37-1		Ar

%		210
%		mJ
	MPa	



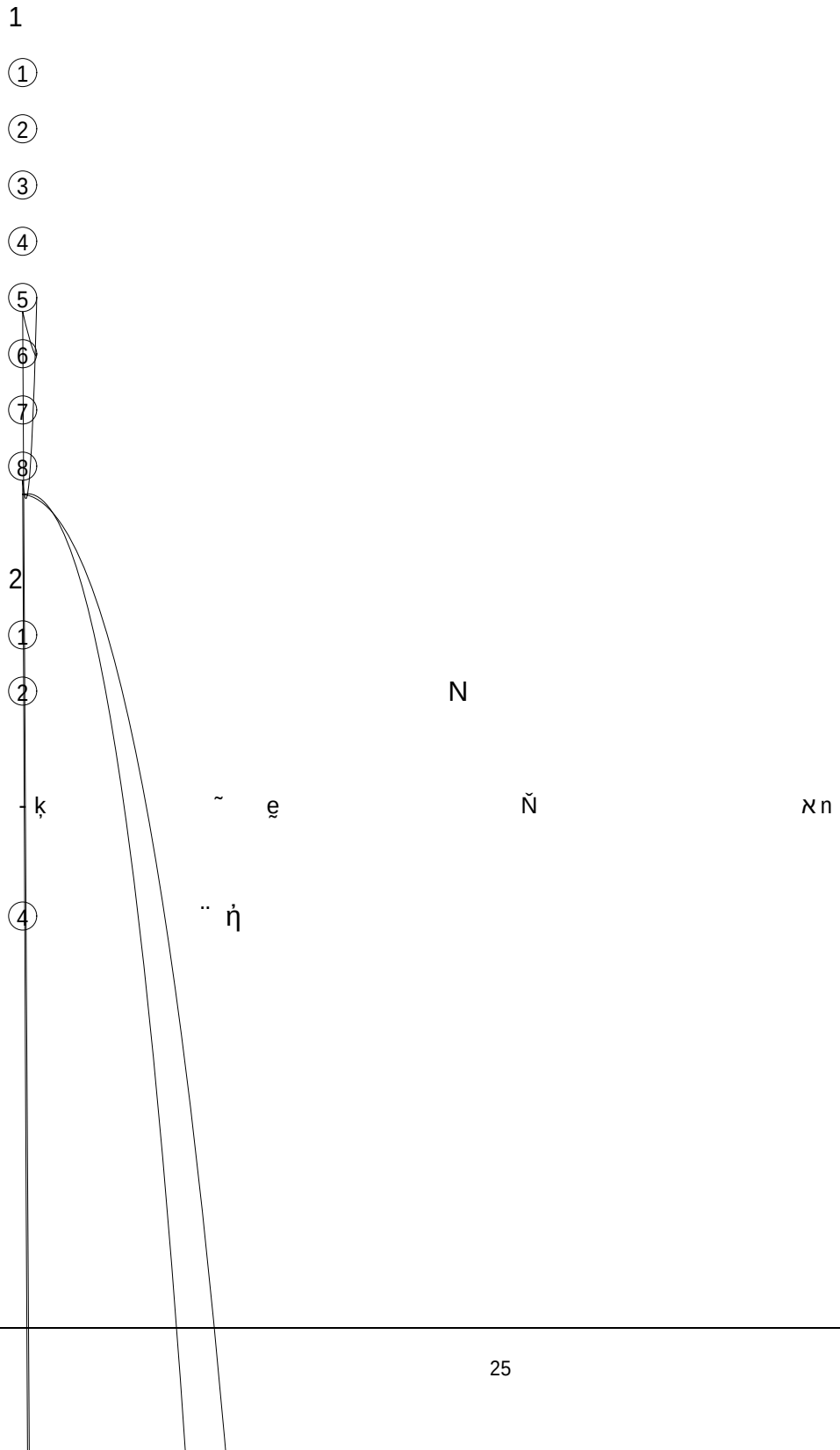
Õ AúÿÒ¿P

&• N [illegible] DAm=8("@@P

! Ù$²Õ@Ðø ãTLÔ@ 5ž²@ø P D

3.4 !c شي 4 âɔr c א n

Ƨ



)

1

①

②

③

④

⑤

⑥

⑦

⑧

2

①

② N

- ķ ˜ e̯ Ň ϰ n

④ ¨ ή

3.4.2

3.4.3

7

3.4.4

3.4.5

1 d̯ ȣπ ʼl ḳ̣ ẕ

я ″l

1

②

③

④

4 ћ

①

②

2

1

2

3

4 я

6

7

8

9

10

11

3

1

2

3

3.6

3.7

85%

3.7.1

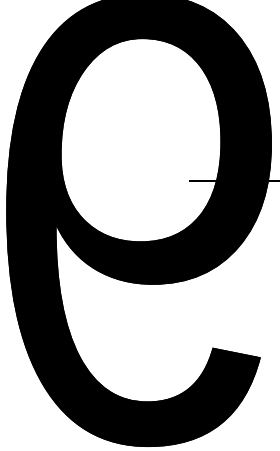
3.7.2

“

”

3.7.3

1



2

3

4

5

6 אn

3

613mm

4

طی

21 9 21

2020 9 17 9 30 xx 9#

9# 18

19 xx 9# 1.5m 1.6m

1.5m

2020 9 20 x 9#

23

55 xx

x xx 23 57 xx

“ xx 9# ” x

1

2020 9 20 x xx 9# xx

2020 9

20 23 55 xx x

2 2

2

1

x

2

2# xx

9#

3

9#

4 xx

1

2

3

4

3.10

4.

4.1

4.1.1

1

2

3

4

4.1.2

4-1

4-1

“ ”

1

2

3

4

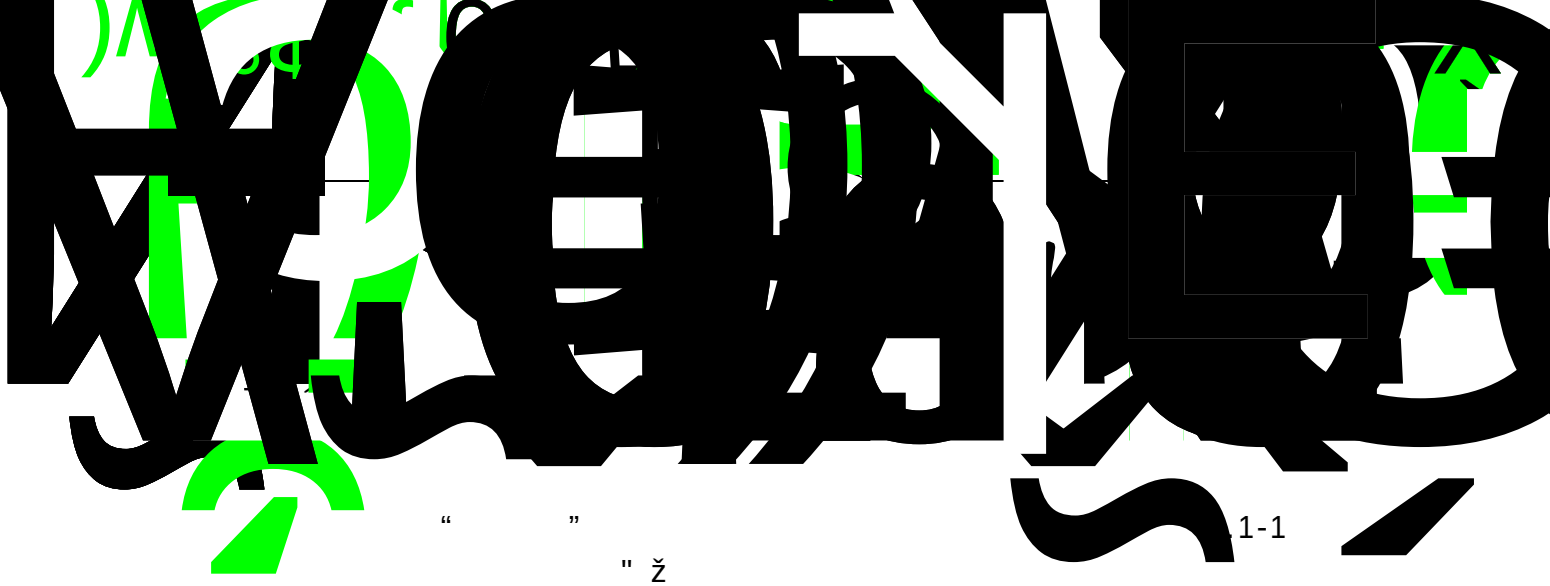
5 æ

11			
12			

4.2

Safety Check List, SCL

4.3



“ ” .1-1

" ž

6					
7			“ ”		
8			“ ”		

“ ”

3556.09 480 13.50%

5.1-1

1

3556.09
480
13.50%

	432
	5
	2
	1
	20
	10
	10

2

	480			

5.2

5.2-1

5.2-1

3	GB50603-2010 5.1.6
4	GB50603-2010 5.1.10
5	GB50603-2010 5.13.4
6	GB50187 2012 5.1.6
7	GB50187 2012 5.1.7
8	GB4387-2008 6.1.1
9	GB4387-2008 4.2
10	GB4387-2008 6.1.3
11	AQ2001-2018

		5.1.3		
12		AQ2001-2018 6.1.2		
13	0.5m 1m	AQ2001-2018 5.1.1		
14		AQ2001-2018 5.2.1		
15	10	3.4.5	4m 4m	

5.3

5.3-1

5.3-1

1

7.1.6

2		7.1.7		
3	( ) ( ) ( ) ( ) ( ) 0.8m	5.2.4		
4	0.3m	5.3.1	0.3m	
5		6.7.1		
6	3m 2.5m	12.4.1		
7	, , , , ( )	AQ2001-2018 5.2.1		
8	, ( ) , , ,	AQ2001-2018 5.2.3		

5.4-1

5.4-1

,

9

	,	13.1.1		
8	100% , ,	13.1.5		
9	(GB 6222) ; ;	13.1.7		
10	,	13.1.11		
11		3.1.3		
12		3.2.13		
13		6.1.1		
14		6.2.1		
15		6.3.1		
16		4.4.1		
17		4.4		
18				

	“ ”	5.1.2		
19		6.3.7		
20		4.1.2		
21		5.3.4		
22		4.0.5	12#	
23		5.0.4	13#	
24	1 2 3 4	6.0.3		
25	4㎜^{2}	7.0.5		
26		7.0.6		
27	4㎜2	5.1.1		
28		4.2.3		

5.5.2

5.5.2-1

1 3.1.3

2 3+ 3.2.2

3 2 5.1.3 2

4 3.1.2

5 6.3.2

6

3+

13

7.4.1

2 GB50014 GB50187-2012 7.4.2

3 1 2 3 GB50187-2012 7.4.4

4 1 0.2m 0.4m 0.3m 2 0.3% 0.2% 3 0.2m GB50187-2012

5.6

1

2022 4 22 “ ” 2024 4

2

2025

1 1

3

2023 4 24 “ ” 2024 4 24 m " s

5.9

4 1

1

2 "

3
P

1 א

5

6 ð O

6

24

30kPa

8

“

”

2				
3				
4				
5				

1

2

24

3

4

5

6

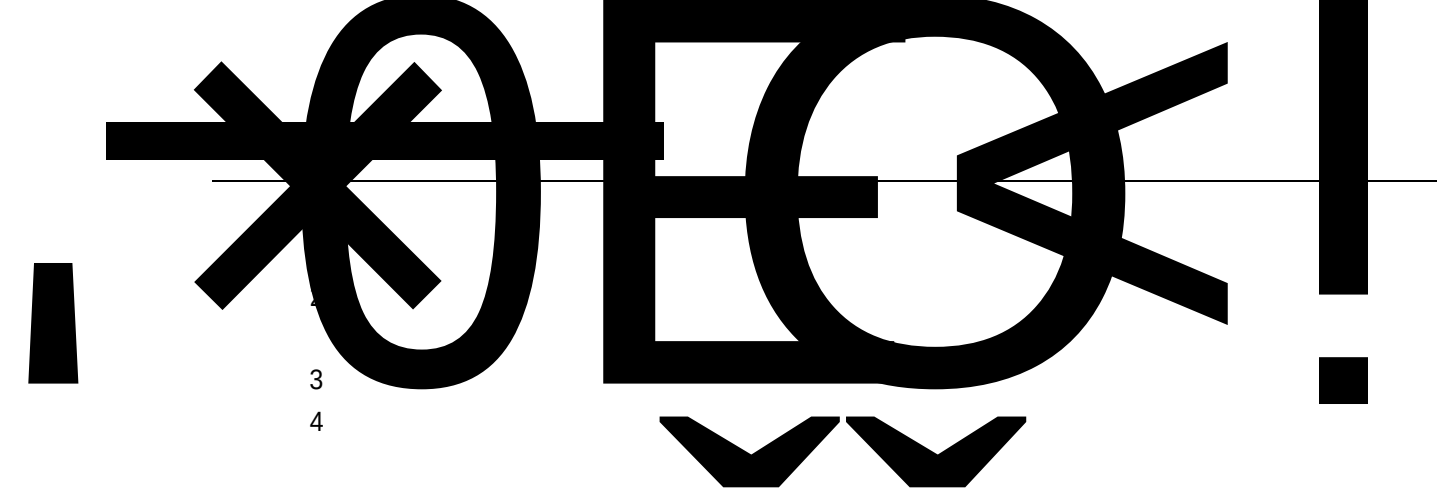
5.10

3

5.10-1

5.10-1

1	1.2m	3 4.1.1		
2		3 4.1.2		
3		3 4.5.1		
4	2m 20m 1050mm	3 5.2.2	1050mm	
5	“ ”	4.2.3	“ ”	
6	2m	6.1.6	2m	

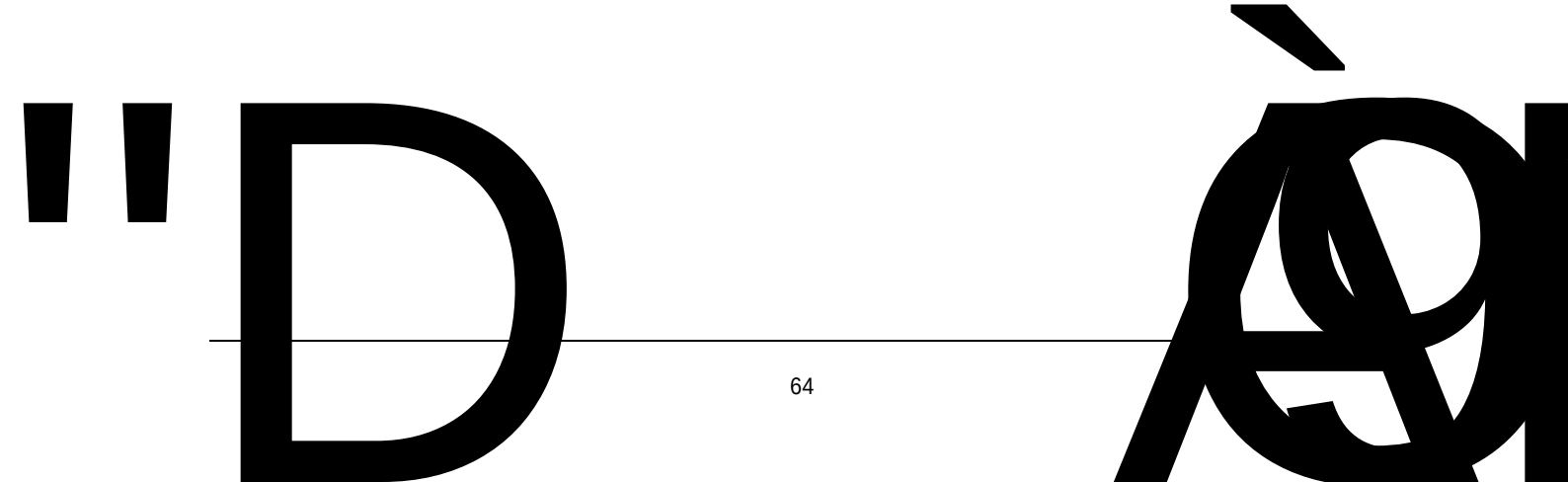


3

4

3

*



- - -

5

6

7

8

	17 18 19 20 TOP			
4	1 1 2 3 4 ， 2 1 2 3 4 5 30 50 6	6.2.3		

7

0.02%

1

2

3

4

قد , Ṗ ⅄

5

6

5

2 ė ž m" r -

3

4

5

6

7 ū

10

6.2.99

1

2

3 “ ”

4

5

11

6

7

8 2021 5

1

9

10 ╝

1050㎜

	1Ω 4 20kV 5 / PLC 20kV 6 AC380/220V 2.2m 36/24V 10mA 90min 6-1 6-1 7 1.5m 8			
15	6.4.2.1	6.4.2		

1		1	
2		1	
3		2	

24h

لإ

108mm 20

16 GB7231-2003 4.2

24 26 20 ± 2

1
2
3 PLC

19

	300mm 2 1 15m GB50057 3 7 4 Wo=0.45kN/m² So=0.50kN/m² 50	6.5		
22	1 30km/h 20km/h 3 4 5 6 7 8 9	6.6.1		
23	1 , , 2 “ ” “ ” 3 ( ) 4 “ ” 5	6.6.2		

6

6.1

4 4.0.5

12#

7

7.1

7.2

1

2

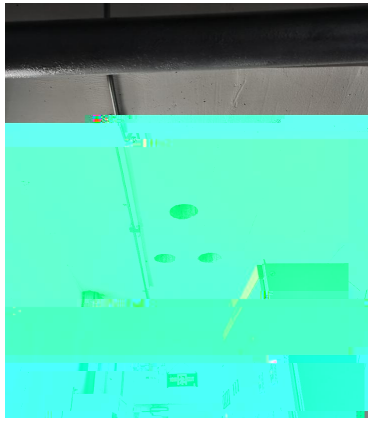
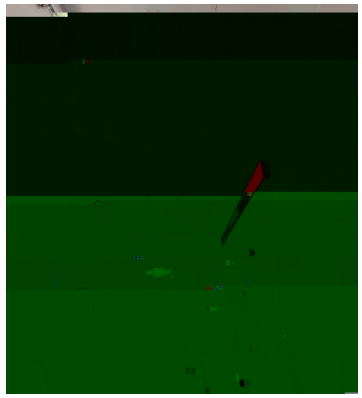
3

4

7.3

“ ”

“ ”

1	7#			
2	13#			

3	13#			
4	12#			

5				
			2023 12 22	