



300UA10B2205	10	4	545	4	545	5
300UA1B3C301C302_201	10	30	405	30	405	37.5
300UA1B2202	10	4	405	4	405	5
300UB1B1B3C301_302_201	10	3.75	545	3.75	545	4.6
300UB1B2215	10	3.75	545	3.75	545	4.6
300UB1B2216	10	4	545	4	545	5
300UB2B2C301C302_201_202	10	3.75	545	3.75	545	4.6
300UB2B2203	10	4	545	4	545	5
300UC1Y0B3C302C303_304_204	10	2	220	2	220	2.75
300UC1B2201	50	2	310	2	310	2.5
300UC1YB2201	50	4	545	4	545	5
300UA30B2204	10	4	280	4	280	5
300UA70B2204	10	4	280	4	280	5
300UB1B2202	50	0.1	50	0.1	50	1.25
300UA30B2C301C201_202_203	10	30.06	198	37.27	200	46.5
300UA30B2202	10	2	280	2	280	2.5
300UA30B2204	10	4	280	4	280	5
300UA70B2C301C201_202_203	10	30.06	198	37.27	200	46.5
300UA70B2202	10	2	280	2	280	2.5
300UA70B2204	10	4	280	4	280	5
300UC3Y1B3C302C202_303_204	10	2.1	214	2.1	214	2.6
300UC3Y1B2203	10	1.5	206	1.5	206	1.8
300UC3Y1B3C301C201_202_303	10	2.1	214	2.1	214	2.6
300UC3Y1B2202	10	1.5	206	1.5	206	1.8
300UC3Y1B3C302C202_303_206	10	0.56	36	0.7	85	1.25
300UC3Y1B3C301C201_202_202	10	0.56	36	0.7	85	1.25
300UC3Y1B3C301C203_207	10	0.86	28	12	100	1.25

Металл для крепления трубопроводов Metalware for attachment of pipelines							
Поз.	Обозначение	Наименование	Кол.	Материал	Масса, кг		Примеч.
					Ед.	Общ.	
1	По типу 01 DCI 1082.75.29-80	Опора	15	Сварный	1.5	22.5	
	By type 01 Branch standard 1082.75.29-80	Support		Assembly			
2	По типу 01 DCI 1082.75.56-80	Блок хомутовый	15	Сварный	5.0	65.0	
	By type 01 Branch standard 1082.75.56-80	Clamp block		Assembly			
3	По типу 01 DCI 1082.75.52-80	Блок хомутовый	15	Сварный	1.3	19.5	
	By type 01 Branch standard 1082.75.52-80	Clamp block		Assembly			
4	По типу 97 DCI 1086.32.08-80	Тяга левая	45	0972С-14 ГОСТ 19281-89х Low-alloy steel State standard 1928-89х	0.25	11.3	
	By type 97 Branch standard 1086.32.08-80	Left rod					
5	По типу 03 DCI 1086.32.08-80	Тяга	45	0972С-14 ГОСТ 19281-89х Low-alloy steel State standard 1928-89х	0.25	11.3	
	By type 03 Branch standard 1086.32.08-80	Rod					
6	БК-590770-06	Муфта	45	0972С-14 ГОСТ 19281-89х Low-alloy steel State standard 1928-89х	0.26	11.7	
		Sleeve					
7	ГОСТ 2590-2006	Косарь B10, 500 мм	45	0972С-14 ГОСТ 19281-89х Low-alloy steel State standard 1928-89х	0.31	14.0	
	State standard 2590-2006	Round B10, 500 mm					
8	По типу 01 DCI 1086.43.01-80	Тяга с прокладками	45	Сварный	0.62	27.9	
	By type 01 Branch standard 1086.43.01-80	Rod with lug		Assembly			
9	По типу 01 DCI 1086.43.01-80	Ушко	100	0972С-14 ГОСТ 19281-89х Low-alloy steel State standard 1928-89х	0.07	7.0	
	By type 01 Branch standard 1086.43.01-80	Eye					
10	ГОСТ 2590-2006	Косарь B8, 450 мм	45	301С1А ГОСТ 4340-71 Stainless steel	0.4	180.0	

		Спецификация					
		Specification					
Поз.	Обозначение	Наименование	Кол.	Материал	Масса, кг		Примеч.
					Ед.	Общ.	
19	СТО СЦТИ 001-2007	05 Зона	1	12X18H10T	-	-	см. ТТ пункт 1
	Branch standard 001-2007	05 Probe		Stainless steel	-	-	See no item 1
20	СТО СЦТИ 001-2007	06 Зона	2	12X18H10T	-	-	см. ТТ пункт 1
	Branch standard 001-2007	06 Probe		Stainless steel	-	-	See no item 1
21	СТО СЦТИ 001-2007	06 Зона	2	12X18H10T	-	-	см. ТТ пункт 1
	Branch standard 001-2007	06 Probe		Stainless steel	-	-	See no item 1
22	СТО СЦТИ 001-2007	05 Зона	2	12X18H10T	-	-	см. ТТ пункт 1
	Branch standard 001-2007	05 Probe		Stainless steel	-	-	See no item 1
23	СТО СЦТИ 001-2007	06 Зона	2	12X18H10T	-	-	см. ТТ пункт 1
	Branch standard 001-2007	06 Probe		Stainless steel	-	-	See no item 1
24	СТО СЦТИ 001-2007	05 Зона	2	12X18H10T	-	-	см. ТТ пункт 1
	Branch standard 001-2007	05 Probe		Stainless steel	-	-	See no item 1
25	По настоящим чертежам	Пробака Ø25	7	15X1M1P	0.35	7.00	см. ТТ пункт 2
	By this drawing	Plug Ø25		Alloy steel			See no item 2
26	По настоящим чертежам	Пробака Ø25	2	15C	0.57	0.57	см. ТТ пункт 2
	By this drawing	Plug Ø25		Alloy steel			See no item 2
27	По настоящим чертежам	Пробака Ø16.5	2	15X1M1P	0.60	4.20	см. ТТ пункт 2
	By this drawing	Plug Ø16.5		Alloy steel			See no item 2
28							

[illegible]

drawal data see NO 8633-3004A-##H-TM-31-10-1001.

ing is prepared in 6 sheets.

line schedule, for working and design parameters see table 1.

PI-diagram "Sampling system" see NO 8633-3004A-QUB-TM-01-21-002.

lines shall be manufactured and erected in compliance with SR 10-573-03 "Rules for management and safe operation of steam and hot water pipelines" and "Guidelines for management and safe operation of water pipelines".

first shut-off valve is mounted after probe and shall be attached as close as possible to the sampling point for isolation of sampling line from the main pipeline, and the second is mounted before control to isolate it for maintenance and repair.

lines upstream of valves shall be hydrotested along with the main pipeline.

lines DN 50 mm shall be attached in each 3 m and pipelines DN < 50 - in each 2 m.

the valves are supplied as per separate purchase specifications.

the pipelines shall be installed in the form of a loop. The pipelines shall be enclosed under platform) and routed close to the walls to ensure personnel safety.

erection of sampling lines it is required to ensure pipeline slope towards sample flow is not less than 0.004 and to provide thermal extension compensation sections.

locations of pipeline supports shall be decided at erection. Supports shall be made from part steel ordered in the specification.

Sampling probes are mounted at straight length of pipeline. For installation of tube probe horizontal pipeline it is required to ensure straight length not less than 1000 mm up to the sampling point and not less than 200 mm downstream of it. For installation of tube probes in vertical pipeline it is required to ensure straight length not less than 400 mm up to the sampling point and not less than 200 mm downstream of it. Probes shall be directed strictly against the flow.

a supply set of sampling device shall comprise sleeve and pipe (without probe housing).

at sampling point is 9633030, 16FC Specs3-923-75, group 14 as per SR 10-573-03.

ding device shall be welded directly to the pipeline according to Central boiler

one institute organization standard 01-2007, fig. 2 view A

a supply set of sampling device shall comprise sleeve and pipe (without probe housing).

at sampling point is - 9465x75, 15XMP15 13-14-35-55-200, group 12 as per SR 10-573-03.

ding device shall be welded directly to the pipeline according to Central boiler

one institute organization standard 01-2007, fig. 5 view A

a supply set of sampling device shall comprise sleeve and pipe (without probe housing).

at sampling point is - 9325x40, 15XMP15 13-14-35-55-200, group 14 as per SR 10-573-03.

ding device shall be welded directly to the pipeline according to Central boiler

one institute organization standard 01-2007, fig. 5 view A

a supply set of sampling device shall comprise sleeve and pipe (without probe housing).

at sampling point is - 9465x75, 15XMP15 13-14-35-55-200, group 14 as per SR 10-573-03.

ding device shall be welded directly to the pipeline according to Central boiler

one institute organization standard 01-2007, fig. 2 view A

a supply set of sampling device shall comprise sleeve and pipe (without probe housing).

at sampling point is - 9290x32, 15XMP15 13-14-35-55-200, group 12 as per SR 10-573-03.

ding device shall be welded directly to the pipeline according to Central boiler

one institute organization standard 01-2007, fig. 5 view A

a supply set of sampling device shall comprise sleeve and pipe (without probe housing).

at sampling point is - 9465x56, 15FC 13-14-35-55-200, group 14 as per SR 10-573-03.

ding device shall be welded directly to the pipeline according to Central boiler

one institute organization standard 01-2007, fig. 2 view A

Sampling devices shall be installed after completion of erection works. For the period of erection and post-repair pipeline flushing the probes shall be replaced with plugs 27-27 to prevent clogging of probe receiver.

ends 46-38 are not shown in the drawing for convenience.

ended end piece pos.32, quantity one (1) piece, shall be used to plug nozzle 125x32.

PI-DIAGRAM 31032-2009 as per drawing NO 8633-3004A-11C-TM-63-03-01, 2 in line with updated technical solution (refer to PIID NO 8633-3004A-11L-TM-21-002 rev.2).

the sizes of throttling devices are subject to adjustment during adjustment works.

32105-2009	453 СТО ЦКТИ 32105-2009	16x2,5-100x100x357-R100	Отвод гнаты 45° 16x2,5-100x100x279-R100	12XMP TU 14-3P-35-2001	0,23	12	
56	453 Branch standards 32105-2009		Венд 45° 16x2,5-100x100x357-R100	Any steel, technical specifications H-P-35-2001			
57	015 СТО ЦКТИ 32102-2009	Отвод гнаты 90° 16x2-100x100x357-R100	Венд 90° 16x2-100x100x357-R100	15°C TU 14-3P-35-2001	0,26	4,4	
58	013 СТО ЦКТИ 32102-2009	Отвод гнаты 45° 16x2-100x100x279-R100	Венд 45° 16x2-100x100x279-R100	15°C TU 14-3P-35-2001	0,2	1,8	
59	013 Branch standards 32102-2009			Any steel, technical specifications H-P-35-2001			
60	200 LM 892 HD200	Клапан запорный Ду 10 Рассч. 3127 MPa, Iides 545 °C	Shutoff valve DN 10 Pides 3127 MPa, Iides 545 °C	Сварный Assembly	6,0	372,0	
61	KH 400-010-Hn-025-H УКЛ (15кx67кx)	Клапан запорный Ду 10 PN 2,5 MPa	Shutoff valve DN 10 PN 2,5 MPa	Сварный Assembly	-	-	
62	KH 400-010-Hn-016-H УКЛ (15кx67кx)	Клапан запорный Ду 10 PN 16 MPa	Shutoff valve DN 10 PN 16 MPa	Сварный Assembly	-	-	
63	30лс41х	Задвижка Ду 30 PN 16 MPa	Gate valve DN 30 PN 16 MPa	Сварный Assembly	25,4	25,4	
64	200 AE 872	Клапан запорный Ду 10 Рассч. 382 MPa, Iides 206 °C	Shutoff valve DN 10 Pides 382 MPa, Iides 206 °C	Сварный Assembly	6,0	24,0	
65							
	ГОСТ 2246-70	Сварочная проволока		2 Св-04X19H1M3	35		
	State standard 2246-70	Welding wire					
	ГОСТ 2246-70	Сварочная проволока		2 Св-08FC	5		
	State standard 2246-70	Welding wire					
	ГОСТ 2246-70	Сварочная проволока		2 Св-08XMPA	5		
	State standard 2246-70						
				Итого:	775,06		
				Total:			

23	По настоящим чертежам	Переход 16x25-14x2	12X18H10T	0.12	0.96
23	By this drawing	Reducer 16x3-10x2	Stainless steel		
23	По настоящим чертежам	Переходный композитный 16x4-16x3	Сварный	0.17	0.34
23	By this drawing	Composite reducer 16x4-16x3	Assembly		
23	По настоящим чертежам	Переходный композитный 16x3-16x25	Сварный	0.14	2.5
23	By this drawing	Composite reducer 16x3-16x25	Assembly		
22	По настоящим чертежам	Переходный композитный 16x3-16x2	Сварный	0.13	0.7
22	By this drawing	Composite reducer 16x3-16x2	Assembly		
22	По настоящим чертежам	Переходный композитный 14x2-14x2	Сварный	0.1	7.7
22	By this drawing	Composite reducer 14x2-14x2	Assembly		
22	По настоящим чертежам	Переход 16x4-16x25	12X18H10T ТУ 14-39-55-2001	0.16	0.32
22	By this drawing	Reducer 16x4-16x25	Alloy steel, technical specifications 14-39-55-2001		
22	По настоящим чертежам	Переход 16x3-10x2	12X18H10T	0.1	1.1
22	By this drawing	Reducer 16x3-10x2	Stainless steel		
22	По настоящим чертежам	Переход 16x2-14x2	12X18H10T	0.1	0.88
22	By this drawing	Reducer 16x2-14x2	Stainless steel		

Статус документа/DOCUMENT STATUS: Для утверждения / For approval

5					
4					
3					
2					
1					

Им. Рев.	Описание	Разработано	Проверено	Утверждено	Дата
Заявчик	Description	Prepared	Checked	Approved	Date
Customer		Contractor			

ОАО «Э.ОН Россия»
JSC E.ON Russia

ЗАО «Энергопроект»
CJSC EnergoProekt

Наименование проекта
Project title

Строительство 3-го энергоблока на базе ПСУ-800 филиала «Березовская ГРЭС»
Construction of the 3-rd power unit based on BTU-800 of the branch «Berezovskaya GRES» of JSC «E.ON Russia»

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Утверждено Approved	Королева Koroleva		23.06.2014	Главный проект. Турбинное отделение Турбоузелов 4-го блока БЭС мм высокого давления Турбоузелов 4-го блока пар и воды. Монтажная схема Main Building, Turbine hall HP pipelines of ONK 4-10 Steam and water sampling pipelines Mounting diagram	
Субподрядчик Subcontractor		Субподрядчик Subcontractor		Лист Sheet	6 из 6 of Sheets 6
ЗАРУБЕЖ ЭНЕРГОПРОЕКТ FOREIGN ENERGO-PROEKT				Стадия Stage	PW
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