VTGC OJSC

«VOLGA TERRITORIAL GENERATING COMPANY»
« ULYANOVSK CHP-PLANT» Branch
Industrial area, 432046 Ulyanovsk, Zavolzhsky district,
Tel.: (842 2) 20-06-14, fax: (842 2) 20-88-88

Our ref: 08-033/184 dated February 26, 2010

«Northern Interindustry Company
«The Alternative» Ltd
For the attention of Technical Director,
Chief Engineer
V.I. Mankovsky

21 Karl Marx street, 164500 Severodvinsk,
Arkhangelsk region, Russia

As a response to your letter dated February 17, 2010 (Ref.: 08-01.3/505) «About the results of operation» we forward you the appraisal report on the main technical and economical parameters of the ТПЕ-429 boiler No.1A before and after the replacement of heat exchange elements produced by «Northern Interindustry Company «The Alternative» Ltd and installed in regenerative air heater РВП-68 in 2009.

Appraisal report on the effectiveness of operation of heat exchange elements manufactured by «Northern Interindustry Company «The Alternative» Ltd installed in regenerative air heater РВП-68 will be forwarded to your address after expiration of a guarantee period of 12 months.

We are looking forward to getting to know normative service life of СМКА® heat exchange elements produced by «Northern Interindustry Company «The Alternative» Ltd.

Enclosure: List of the main technical and economical parameters in one sheet in one copy.

Sincerely yours,

Director – Chief Engineer V.A.Antonov

S.G.Kitaev
007 (8422) 59-47-07

«VOLGA TERRITORIAL GENERATING COMPANY» OJSC
«Ulyanovsk CHP-plant-2» Branch
List of the main parameters of technical condition of the boiler unit No.1A with ТПЕ-429 steam boiler (construction No.375), year of manufacture is 1984, start-up year is 1985, major repair period lasted from Julv 06, 2009 to August 30, 2009.

№	Parameter	Project or normative factory data	Operation tests or measurements data		Notes
			before major repair	after major repair	
1.	Fuel, its characteristics	gas	gas	gas	
2.	Number of operating burners*	8	8	8	
3.	Excess air behind superheater, α*	1.04 (1.1)**	1.043	1.034	
4.	Steam capacity reduced to the rated parameters, tons/hour	400	399.9	386.2	
5.	Temperature of superheated steam, °C	560	560	560	
6.	Temperature of feed water, °C	230	230	230	
7.	Temperature in checkpoints of water- steam circuit, °C Temperature of feed water behind water economizer	312	323	318	
8.	Maximum temperature of coils walls of heating surfaces in typical places, °C	15	14	10	
9.	Cold air inleakage into furnace, %	0	1.7	1.4	
10.	Air inleakage into convective gas ducts of a boiler, %	10/25.4 (10.7)**	8.8/32.3 24.08	4.9/26.8 19.1	
11.	Inleakage into gas ducts from air heater to smoke exhaust, %	0	9.3	6.4	
12.	Vacuum before guide vane of smoke exhaust, κg/m^2	238	200	165	
13.	Rate of opening of guide vanes of smoke exhaust, %	-	94	69	
14.	Rate of opening of guide vanes of fans, % Primary blast fan/Secondarv blast fan	-	90/55(II)	100/75(I)	
15.	Temperature of released gases, °C	150(120)**	141.8	134.0	
16.	Heat loss with released gases, %	6.367 (4.36)	6.29	5.53	
17.	Boiler gross efficiency, %	92.838 (94,74)	93.29	94.03	
18.	Specific power consumption for traction and blast, kWatt-hour/ steam	5.0	5.86	4.04	
19.	NO_x content in flue gases (a=l.4) mg/ nm^3	270	240.1	175.6	
	*Accepted by parameter chart				
	**Project factory data				

Representatives of power plant:

Head of Production and Technical Department — U.A.Chernyshev
Head of Boiler-Turbine Workshop — A.P.Oleynikov
Chief of Repair: — V.G.Gusev