SIBLEY STANDARD OPERATIONAL PRACTICE MANUAL

JOB DESCRIPTION:

Quantify heat rate/efficiency for Sibley 1 & 2, in accordance with requirements for the Fuel Adjustment Clause (FAC) as described in 4 CSR 240-3.161 (2)(P).

PROCE	DURE NO.: 0801-2400-0001	LOCATION: Sibley
DATE:	9/11/07	ACTION AND ACTION AND ACTION AND ACTION AND ACTION
Inforn	nation/Background:	THE STATE OF THE S
Initial sp	pace below as steps are completed.	***CT**CLASTORY THE PROPERTY OF THE PROPERTY O
1	Current coal blend shall be maintained for at le	east 24 hours prior to test. No "wet" coal
	shall be used during the test.	Verification of the control of the c
2	Testing shall be conducted at least once every	24 months.
3	Testing should be conducted immediately follo	wing a Spring or Fall Outage or when the
	boiler/condenser are free of ash deposits/acc	mulation
4	Do not perform the test if a boiler tube leak is	SUSPECTED.
5	There shall be a 30 minute settling period before	re the 4-hour test begins. The unit shall
	be within 5% of the target load of 50 gross MV	V throughout the settling period for
	baseline testing. Only minor changes in unit c	ontrol shall be made during this time as
	required to bring the unit into normal steady-s	tate operation.
6.	Subsequent testing shall be performed at the	same governor position as the original
-dis-	baseline test without the need to obtain the sa	me MW load. Constant boiler outlet
	pressure shall be maintained.	
7	Sootblowing and equipment starting/stopping	should be kept to a minimum and logged
	on Data Sheeks	
8	Any deviations from load shall be noted on Da	ta Sheet 1.
9	Ensure plant Distributed Control System (DCS) reports (described below in Step 18) are
	available for hourly printing.	
Opera	tional Steps:	
8	Determine proper testing conditions. If done	during Southwest Power Pool (SPP)
Ор	erational Test, ambient site conditions must be m	et and test performed in the summer

Sibley Generating Station Procedure No. 08-01-2400-0002

	months (June - September). If not performed in conjunction with the SPP test, determine
	when boiler/condenser is free from accumulation, instruments calibrated, minimal equipment
	out of service, etc. If there is equipment out of service, these items shall be noted on Data
	Sheet 1.
9.	Attach completed Maintenance Request (MR) for instrument calibration. Instruments
	that shall be calibrated prior to test include: throttle steam temperature and pressure (PT1004
	PT2004, TT1004, TT2004), feedwater to economizer (FT1005, FT2005), flue gas oxygen
	(MT1016, MT2016), circulating water to condenser temperature and pressure (TT1062,
	TT2062, PT2131), coal feeder flow (1CH-XE001E, 1CH-XE001W, 2CH-XE001E, 2CH-
	XE001W), main steam attemperator flow (FT1011, FT2011).
10.	Ash samples (see Procedure 0801-2510-0102 for collecting ash samples) for the test
	shall be collected for each segment of the test including settling period and 4 hour test.
11.	Fuel samples (see Procedure 0801-2300-0001 for collecting fuel samples) for the test shall be
	collected for each segment of the test including settling period and 4 hour test.
12.	Note the fuel blend on Data Sheet 1.
13.	Notify System Operations, Operations, Maintenance, and Coal Handling personnel of
	test date/time.
14.	Remove the unit from Remote Control.
15.	Raise load to 50 MW for the first test (baseline). The turbine governor valve position
	shall be recorded, as this will be the testing point for future tests. The test will be performed
	for 30 minute settling period and continue holding for 4 hour test period.
16.	Begin ash sample collection and initial below that sample was collected.
	SettlingHour 2Hour 4
17:	THE PROPERTY OF THE PROPERTY O
	SettlingHour 1Hour 2Hour 3Hour 4
18.	Begin hourly DCS data acquisition from Engineering console.
	Initial below that DCS reports were collected.
	Settling Hour 1 Hour 2 Hour 3 Hour 4
19.	Collect all information on Data Sheet 1 at the top of end of each hour for settling period and 4
	hour test period.
	Initial below that information for Data Sheet 1 was collected.
	SettlingHour 1Hour 2Hour 3Hour 4
20.	Review the data hourly to determine if test data is reasonable. If inadequate, test will
	he standed and performed at a later date

	Initial below that data was reviewed and is accurate										
	SettlingHour 1Hour 2Hour 3Hour 4										
21.	At completion of test, notify System Operations and reduce/release load for remote										
	control operation.										
22.	At test conclusion, compile and ensure all data was collected.										
23.	Prepare ash samples for testing and analysis. Ash samples shall be tested by in-										
	house lab and shall include LOI.										
24.	Prepare fuel samples for testing and analysis. Five samples (30 minute settling										
	sample and 4 one-hour samples) are for in-house testing and five samples are to be sent to an										
	outside laboratory. If various feeder samples, they shall be combined into one sample for each										
	hour of the test period. An outside laboratory will perform a short proximate analysis in										
	addition to the testing done in-house (Btu, ash, sulfur, moisture)										
25.	Complete preliminary test calculations using in-house fuel btu values. Record results										
	on data sheet. Heat Rate results will be averaged over the testing period.										
26.	Compare baseline (first test) and all subsequent testing data to actual test results and										
	determine if adequate/consistent.										
27.	Attach copies of DCS reports data sheets, and other Operator logs/test sheets, if										
	necessary. ### Applications of Applications o										
28.	Once fuel sample results are obtained and reviewed, complete final averaged heat rate										
	calculations. Record results using the average of all fuel Btu values received on Data Sheet 1.										
29.	Include an executive summary of the findings with the test documentation including										
	Data Sheet 1, DCS reports, and heat rate calculations.										
30.	Forward to appropriate contact for the Aquila Regulatory Department.										
A800*	Manual Control Contr										

AFE	All plant personnel shall follow Plant Safety Procedures										
LE/	RANCE: None required										
ED	CONNEL : Operator Assistant Operator Operations Engineer Coal Handler Laborer System										

CL

PERSONNEL: Operator, Assistant Operator, Operations Engineer, Coal Handler, Laborer, System Operations

EFFECTS ON OTHER EQUIPMENT: None.

LOCATIONS: Control Room

Sibley Unit 1 Heat Rate Test

Data Sheet 1							
		Collected by:					
		Hour	Settling	1	2	3	4
		Time					
Gross MW	ST1011	MW					
Net MW		MW					
MVARS		mvars		Ü			
Barometric Pressure		INHG					1
Ambient Air Temperature	TT1757	°F					1
HHV of coal	In house Lab	mbtu/lb					
HHV of coal	Outside Lab			n			
Gross Heat Rate Calculation	In house Lab	Btu/KWH	ACCEPTANCE PRODUCTION OF THE P	ACCOUNTS SECTIONS SEC	7		1
Gross Heat Rate Calculation	Outside Lab	Btu/KWH	Americani	Assessment Country			
Ash analysis		LOI		AND CARLO SECTION AND CO.			
SO ₂ emissions		tons		CONSTRUCTION OF THE STATE OF TH	м		
NO _x emissions		lb/mmBtu		. Assessment	personantico personantico personalitativo personalitativo		
			25 ACCOUNT 2012/2014 ACCOUNT 2012/2014 ACCOUNT	4,0000	######################################	20 900 2008	
CO ₂ emissions		9.00			Amaignamentaria"	2005 16665 20029	
Governor valve position		% "	CONTRACTOR		**************************************	NOW.	
Make up flow	FT1057	gpm	ALLEAN MANAGEMENT OF THE PROPERTY OF THE PROPE		Program to conserv	ir .	<u> </u>
Circ Water to Condenser	TT1062	°F	**************************************	Su. Anne.	-		
Selected O2	SELO21	%	National Control of the Control of t	AMERICAN AMERICANA AMERICANA			<u> </u>
Excess O2	MT1016	%	***	ENGLESCHERANDA STOREGOEDERS	eren eren eren		
FD Fan Inlet Vane Position	MT1080	%		Activities proceedings to a particular	#? -		ļ
FD Fan Amps		Amps		recognification of the second			
BFP 1E Suction Flow	FT1006	KLB/HR	w.	2020000 202000 20200			
BFP 1W Suction Flow	FT1007	KLB/HR	######################################	earn Notes			
Condensate from Pump Discharge	TT1054 Superior security assessment to the superior security as superior se	°F 🚟 🖫	morning son				
BFP 1E Suction Temp	TT1043	°F ******	***************************************				
BFP 1W Suction Temp	TT1038		30000 ASSUREDON.				
Feedwater to Econ	FT1005	KLB/HR	5000000 60000 0 60000				
Feedwater to Econ Press	PT1028	psig	2000 2000 37				
Attemperator flow	1S-FT1011UNIT12@U12						
Total Air Flow	AN1064	KLB/HR					
Coal Flow - east feeder	1CH-XE001E-HRF	KLB/HR					
Coal Flow - west feeder	1CH-XE001W-HRF	KLB/HR					
Total Fuel Flow	AN1078	KĽB/HR					
Steam Flow	AN1076	KLB/HR					
Primary Furnace Gas Pressure	PT1063************************************	INWC					
Air Heater Outlet Air Temp	TT1683	°F					
Air Heater Outlet Gas Temp	TT1687	°F					
Air Heater in Temp	TT1700	°F					
OFA settings							
Throttle Pressure	PT1004	psig					
Throttle Steam Temp	TT1004	°F					
Turbine Exhaust	TT1133	°F					
Condenser Hotwell	TT4053	°F					
Circ Water from Cond 1E	TT1064	°F					
Circ Water from Cond 1W	TT1068	°F					1
Circ Water pressure	PT2131	psig					
Economizer Outlet Gas	TT1685	°F					1
Boiler Master %	O001X196	%					
Furnace/Windbox Diff	PT1061	INWC			-		
Cond Abs Pressure	PT1026	INHGA					
Drum Level	BDLEVEL1	INWC					
Drum Pressure	PT1008	psig					
Secondary Furn Gas Press	PT1064	INWC					
	FT1022	KLB/HR					
Secondary Air Flow 1E	FT1022	KLB/HR KLB/HR					
Secondary Air Flow 1W	FIIUZI	IVED/UK	L				
Notes including list of equipment out							
of service							
ĺ	1						

Sibley Generating Station Procedure No. 08-01-2400-0002

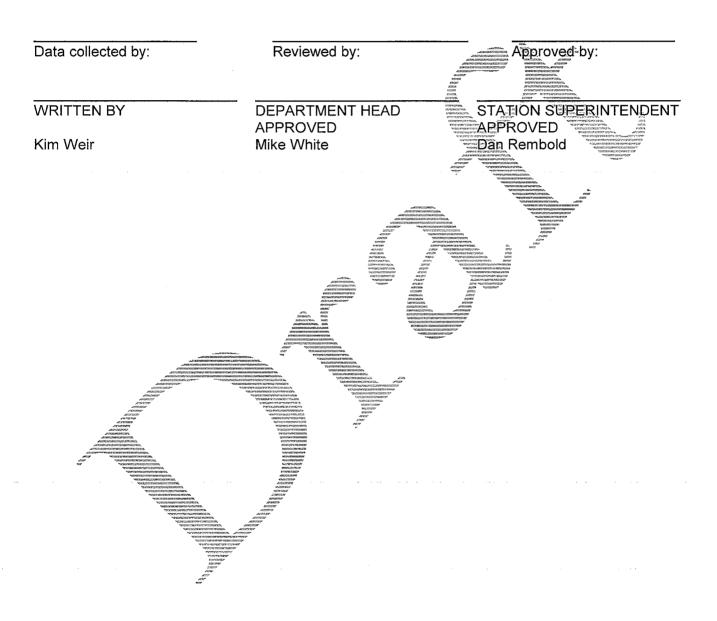
Sibley Unit 2 Heat Rate Test Data Sheet 1

Data Sheet 1			·				· · · · · · · · · · · · · · · · · · ·
		Collected by:					ļ <u>.</u>
		Hour	Settling	1	2	3	4
10.00	IO-TOO 4.4	Time					
Gross MW	ST2011	MW					
Net MW		MW			ļ		
MVARS		mvars					
Barometric Pressure		INHG					
Ambient Air Temperature	TT2757	°F			<u> </u>		
HHV of coal	In house Lab	mbtu/lb		ļ			
HHV of coal	Outside Lab	mbtu/lb					
Gross Heat Rate Calculation	In house Lab	Btu/KWH		ASSESSMENT	20074. 20 909754.	ANY NATIONAL NATIONAL	
Gross Heat Rate Calculation	Outside Lab	Btu/KWH		Anten mettersender Terresender	If AUDITORNOUS A DOMESTICATION AND	course are	
Ash analysis		LOI		SERVE .	STATESTANDARDA STATESTANDARDA STATESTANDARDA		
Sootblowing during test		Y/N		201	\$2,000 \$2,000000 \$2,000 \$6,000 \$100 \$100 \$2,000 \$2,000 \$100 \$100 \$100	CONTRACTOR STOCKERSON	
Coal blend		%	6 6	ports. ports. port Arma	A137 (0.00	AND THE PROPERTY OF THE PROPER	
SO ₂ emissions		tons	,	processing as	Contract Contract Contract	CONTRACTOR CONTRACTOR CO	seed, Street Service
NO _x emissions		lb/mmBtu		James Australian Villeto.		400000000000000000000000000000000000000	200000 2000000000000000000000000000000
CO ₂ emissions		tons		TO SECTION STATES AND SECTION AS A SECTION A	i	**********	**************************************
- CO2 cimociono		10110		ANAMAN MARKANANANA ANAMAN MARKANANANA	eses. Markos.	Micros	exem-
Make up flow	FT2057	gpm		ALL AND	POST OF THE POST O		<u> </u>
wake up now	1 12001	lahiii		***	OFFICE AND		
Covernor valve nosition		0/			ACCOUNT OF THE PARTY OF T	797	ļ <u>.</u>
Governor valve position		%	Accordance Accordance		**************************************	A. AND	
Oire Western to Oran I	TT0000	C=			*Diesessis manages Trappersonates Managessisses Necessisses	2000	
Circ Water to Condenser	TT2062	°F	ger egwar i''' waar geeggegggggggggggggggggggggggggggggg	5000. 2000. 2000.	*********	<u> </u>	
Selected O2	SELO22	%	20000000 200000000	MANAGEMENT OF A	2000 2000		
Excess O2 E	MT2016	%	MULTIN THE	SOURCE CONTROL OF THE SECOND STATE OF THE SECOND SE	200		
FD Fan Inlet Vane Position	MT2080	%	ANNE CHICA CHICA	**************************************	MAY MAY May Jack		
FD Fan Amps		Amps	Jacobs Jacobs	promise construction of the	-		
BFP 2E Suction Flow	FT2006	KLB/HR	SECTIONS SECTIONS	600000 600000 600000			
BFP 2W Suction Flow	FT2007	KLB/HR	200000000000	Acceptions Transferred			
Condensate from Pump Discharge	TT2054	°F	***************************************	Control of the Contro			
BFP 2E Suction Temp	TT2043	°F	99000000000000000000000000000000000000	aior ar			
BFP 2W Suction Temp	TT2038	°E.					
Feedwater to Econ	FT2005	KLB/HR					
Feedwater to Econ Press	PT2028	psig					
Attemperator flow	FT2011	With the control of t	*				i
Total Air Flow	AN2064	KLB/HR					ĺ
Coal Flow - east feeder	2CH-XE001E-HRF	KLB/HR					
Coal Flow - cast feeder	2CH-XE001W-HRE	KLB/HR					
Total Fuel Flow	AN2078	KLB/HR					
Character Flow		KLB/HR					
Steam Flow		L			<u></u>	 	
Primary Furnace Gas Pressure	PT2063	INWC	w				
Air Heater Outlet Air Temp	TT2683	°F					
Air Heater Outlet Gas Temp	TT2687	°F					
Air Heater In Temp	TT2700	°F				ļ	
OFA settings	200 to sales Alternation Con. Commission	ļ				<u> </u>	
	PT2004	psig		ļ			
	TT2004	°F					ļ
Turbine Exhaust	TT2133	°F					
Condenser Hotwell	TT2053	۴					
Circ Water from Cond 2E	TT2064	°F					
Circ Water from Cond 2W	TT2068	°F					
Circ Water pressure	PT2131	psig					
Economizer Outlet Gas	TT2685	°F					
Boiler Master %	O006X196	%					
Furnace/Windbox Diff	PT2061	INWC				1	
Cond Abs Pressure	PT2026	INHGA			i – –		
Drum Level	BDLEVEL2	INWC					
Drum Pressure	PT2008	psig					
	PT2064	INWC			l		
Secondary Furn Gas Press				ļ			
Secondary Air Flow 2E	FT2022	KLB/HR			 		
Secondary Air Flow 2W	FT2021	KLB/HR	L	L	L	<u> </u>	<u> </u>
Notes including list of equipment out							
of service							
	1						
	l						

Example Gross Heat Rate Calculation =

Fuel burned (klbs) * fuel higher heating value (Btu/lb) / gross MW generated

Average Heat Rate Calculation for the complete testing period =



SIBLEY STANDARD OPERATIONAL PRACTICE MANUAL

JOB DESCRIPTION:

Quantify heat rate/efficiency for Sibley 3, in accordance with requirements for the Fuel Adjustment Clause (FAC) as described in 4 CSR 240-3.161 (2)(P).

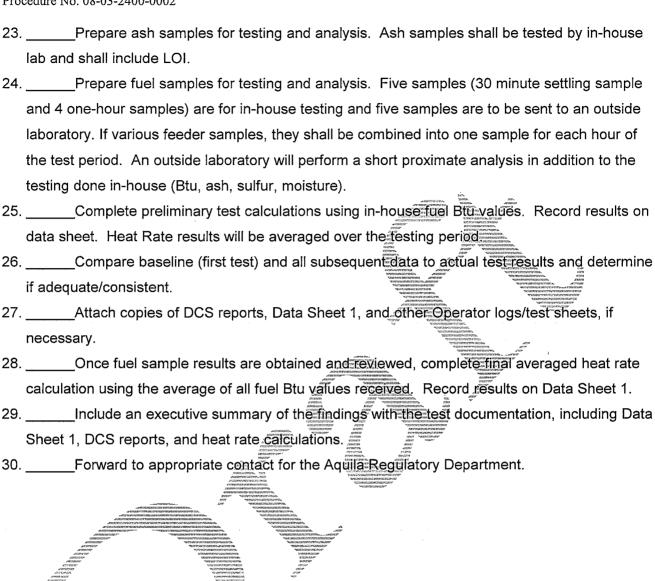
PROCEDURE NO.: 0803-2400-0002 **LOCATION:** Sibley REVISION NO.: 0 **DATE:** 8/15/07 Information/Background: Initial space below as steps are completed. 1. Current coal blend shall be maintained for at least 24 hours prior to test. No "wet" coal shall be used during the test. 2. Testing shall be conducted at least once every 24 months. 3. Testing should be conducted immediately following a Spring or Fall Outage or when the boiler/condenser are free of ash-deposits/accumulation. Do not perform the test if a boiler tube leak is suspected. 5. There shall be a 30 minute settling period before the 4-hour test begins. The unit shall be within 5% of the target load of 380 gross MW throughout the settling period. Only minor changes in unit control shall be made during this time as required to bring the unit into normal, steady-state operation. 🌌 Sootblowing and equipment starting/stopping should be kept to a minimum and logged on Data Sheet 1. Any deviations from load shall be noted on Data Sheet 1. Ensure plant Distributed Control System (DCS) reports (described below in Step 18) are available for hourly printing.

Operational Steps:

Determine proper testing conditions. If done during Southwest Power Pool (SPP)

Operational Test, ambient site conditions must be met and test performed in the summer months (June – September). If not performed in conjunction with the SPP test, determine when boiler/condenser is free from accumulation, instruments calibrated, minimal equipment out of service, etc. If there is equipment out of service, these items shall be noted on Data Sheet 1.

9.	Attach completed Maintenance Request (MR) for instrument calibration. Instruments
	that shall be calibrated prior to test include: throttle steam temperature and pressure (PT006,
	PT004, TT004, TT005), feedwater to economizer (FT005), flue gas oxygen (MT017, MT028,
	MT040, MT041), circulating water to condenser temperature and pressure (TT062, PT026), coal
	feeder flow (MT63-70), main steam attemperator flow (FSSH), reheat attemperator flow
	(FT016), reheat temperature (TT007, TT006).
10.	Ash samples (see Procedure 0803-2510-0102 for collecting ash samples) for the test
	shall be collected for each segment of the test including settling period and 4 hour test.
11.	Fuel samples (see Procedure 0803-2300-0001 for collecting fuel samples) for the test
	shall be collected for each segment of the test including settling period and 4 hour test.
12.	Note the fuel blend on Data Sheet 1.
13.	Notify System Operations, Operations, Maintenance and Coal Handling personnel of
	test date/time.
14.	Remove the unit from Remote Control.
15.	Raise load to 380 gross MW for 30 minute settling period and continue holding for 4 hour
	test period.
16.	Begin ash sample collection and initial below that sample was collected.
	SettlingHour 1 description
17.	Begin coal sample collection and initial below that sample was collected.
	Settling for the control of the cont
18.	Print daily DCS reports once testing is completed. Reports include Unit 3 Boiler Data,
	Unit 3 Heat Rate, Unit 3 Operations Engineer Daily Report, Unit 3 Performance Testing Report,
	DPSC Test Data Sibley Unit 3.
19.	Collect all information on Data Sheet 1 at the end of each hour for the 30 minute settling period
	and each 4-hour test period.
	Initial below that information for Data Sheet 1 was collected.
	Settling Hour 1Hour 2Hour 3Hour 4
20.	Review the data hourly to determine if test data is reasonable. If not reasonable, test will
	be stopped and performed at a later date.
	Initial below that data was reviewed and is reasonable.
	SettlingHour 1Hour 2Hour 3Hour 4
21.	At completion of test, notify System Operations and reduce/release load for remote
	control operation.
22	At test conclusion, compile and ensure all data was collected.



SAFETY: All plant personnel shall follow Plant Safety Procedures

CLEARANCE: None required

PERSONNEL: Operator, Assistant Operator, Operations Engineer, Coal Handler, Laborer, System Operations

EFFECTS ON OTHER EQUIPMENT: None.

LOCATIONS: Control Room

Sibley Unit 3

Sibley Unit 3					I	r	
TT . D . E		Collected					
Heat Rate Test		by:	~				<u> </u>
Data Sheet 1		Hour	Settling	1	2	3	4
		Time					
Gross Megawatts		MW					-
Station Use MW		MW					-
Net Megawatts		MW					
MVARS		mvars					
Ambient Air Temperature		°F	- Anni Silino	20 Sylectic arrange			
Barometric Pressure		INHG		40.00750,00000 Name of the control o			
HHV of coal	In house Lab	mbtu/lb	######################################	gaz format participation and property of the second and			
HHV of coal	Outside Lab	mbtu/lb	ensiste accordin contrata accordina	ACCESSED ACCESSEDA	<u>.</u>		
Gross Heat Rate Calculation	In house Lab	Btu/KWH	50795437034 17757937314144 50727323097505 5072732097505054765 5072732097505054765 507273209750547656	SUDA NAMES OF THE PROPERTY OF	MATTE		
Gross Heat Rate Calculation	Outside Lab	Btu/KWH	TOTAL STREET, ACCOUNTS	**************************************	TOTAL TOTA		
Ash analysis		LOI	NOTATION AND THE PROPERTY AND THE PROPER		- 1940/2009/2007/2007/P		
SO ₂ emissions		tons	Contracts American actions and Contracts American actions and Contracts and Contract and Contracts and Contract an	JOBA JENNIA JENNIA	47.5495.46664		
NO _x emissions		lb/mmBtu	2000 2000 2000 2000 2000 2000 2000 200	NOONE CONTROL OF THE			
CO ₂ emissions		tons		**************************************	een te		
Cdser Abs Pressure	PT026	INHG	CANA CANA CANADA CANADANA CANADANA	**CONCOUNTED CONTROL C			
Turbine Vacuum		INHG	portion file between the control of	ACCOUNTS OF THE PARTY OF THE PA			
Circ Water to Condenser	TT062	°F	5 * **Manual de Constantina (Constantina) A **Constantina (Constantina) A **November de Constantina (Const	5 4000 5 4000			
Condenser Steam	TT711	oLymposium second	**************************************	00° A 6			
Cdsr Hotwell Condensate	TT053	°F	ema *commonorer sea: *commonorer seas				
Circ Wtr Lvg Cdser	TT064	°F	2000000 20000000 200000000000000000000				
Circ Wtr Lvg Cdser	TT065	°F	CONTRACTOR AND				-
Flue Gas Oxygen	MSO2	%	Constant				
BFPT E Suction Flow	FT007	KLB/HR					
BFPT W Suction Flow	FT006	KLB/HR					
6W Htr Inlet Water	TT036	and Comments					
6E Htr Inlet Water	TF037	°F					
Ext Steam 7E Htr	PT017	PSIG					
Ext Steam 7W Htt	PT016	PSIG					
WBFP Suction Water	TT038	°F					
EBFP Suction Water Consumer Control of the Control	TT043	.°F					
Ext. Steam BFPT E	FT004	KLB/HR					
Ext. Steam BFPT W	FT003	KLB/HR					·
LP Demd Valve Pos EBFPT	LPDEMDA	%					
LP Demd Valve Pos WBFPT	LPDEMDB	%					
EBFP demand	AN0053	%		* .			
WBFP demand	AN0054	%					
Cold Rht. Steam to BFPT's	PT125	PSIG					
EBFP discharge pressure	PT031	PSIG					
Feedwater to Econ	FT005	KLB/HR					
Air Htr Gas Inlet	PT071	INWC			-		
Air Htr Gas Outlet E	PT073	INWC					
Air Htr Oulet Gas E	TT687	°F					
Air Htr Outlet Gas W	TT688	°F				1	
711 11ti Outlot Oas W	11000						

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TT 41 04 0	PTOOC	l para	I	I	1	1	1
Throttle Steam S	PT006	PSIG					
Throttle Steam N	PT004	PSIG					
Throttle stm temp. N	TT004	°F °F					-
Throttle stm temp. S	TT005						_
Selected Throttle Pressure	PSTP	PSIG					-
Mn turb 1st stage - A	PT091	psig					
G.V. 1 Position	GV1PZ	%					
G.V. 2 Position	GV2PZ	%					
G.V. 3 Position	GV3PZ	%					
G.V. 4 Position	GV4PZ	%	ARTHUR DE LA COLUMN DE LA COLUM	200000000000000000000000000000000000000			
G.V. 5 Position	GV5PZ	%	41001000000000000000000000000000000000	THE TAXABLE SECTION SE			
G.V. 6 Position	GV6PZ	%	AND	TO COLOR OF THE PROPERTY OF TH			
G.V. 7 Position	GV7PZ	%	control format f	Secretary and control responsibility of the property of the pr			
G.V. 8 Position	GV8PZ	%	ACCORDING AND AC	4000 4000 4000 4000 4000 4000 4000 400	ordered Societale Store Store Societale Store Societale Store Societale Store Societale Store Societale Store Societale Store Store Societale Store St		_
Conv Pass Encl Outlet	PT014	PSIG	Account of the control of the contro	466000 4600	Talentine Control (Control (Co		
Deaerator Pressure	PT043	PSIG	Accordance and Accord		**************************************		
Boiler Master Demand	BLRMSTO3	%	Particular Security S	1992. HOUSE, HOUSE,	1400000-		
Furnace Gas Pressure	PAFURN	INWC	, 200 AT 1980 2000 00 00 00 00 00 00 00 00 00 00 00 00	CONTRACTOR			
E FD Fan Mtr	MT043	AMPS		TORROWSHIP OF THE TORROWSHIP O	and the second		
W FD Fan Mtr	MT044	AMPS	STATE	4 color chartegraphy Antique sales (Color Color Color Antique calculation (Color Color C			_
Cyclone Master	CYCMASTR	%	COLORES STATE COLORES	9000000 30000000 300000000			
Windbox Average Air Pres	PAWBAIR	INWG	* **Personal Committee of the Committee				
Selected WB/Furn dp	PSFRNDP	NWC =	The state of the s	*			
Total Cyclone Air		KLB/HR	\$1,000 manufactures (1,000				
OFA setting	Anti-production application of parameters and parameters parameters and parameters para	2004m Shaqib Arthresi Garden Projekt Projekt Shaqiban Shaqiban Shaqiban Shaqiban Shaqiban Sha	Acceptance				
Total Coal Flow	TOTCOALH	KLB/HR	contractions and the plant of t				
SWL Coal Flow	MTO63	KLB/HR	. 200301364 - 200301364				
SWU Coal Flow	MTO64	KLB/HR					
SEL Coal Flow	MTO65	KLB/HR					
SEU Coal Flow	MTO66	KLB/HR					
NEL Coal Flow	MTO67	KLB/HR					
NEU Coal Flow	MTO68	KLB/HR					
NWL Coal Flow	MTO69	KLB/HR					
NWU Coal Flow and restriction to the second	MTO70	KLB/HR					
Make up flow	MAKUPFLH	GPH					
Economizer outlet water	TT652	°F					
Cyclone supply dwncmr flow	FT018	KLB/HR					
CP out temp	TSCNVOUT	°F					
Main steam attemp flow	FSSH	KLB/HR					
Reheat steam attemp flow	FT016	KLB/HR					
Pri sprht in steam	TT655	°F					
Pr sprht out steam	TT663	°F					
Pri sprht in steam	PT055	PSIG					
Sec sprht in steam E	TT667	°F					
Sec spritt in steam E Sec spritt out steam S	TT001	°F			<u> </u>		
Reheat out steam N	TT007	°F					
Reheat out steam N Reheat out steam S	TT006	°F					-
	TARHOUT	°F					<u> </u>
Average reheat outlet temp		°F					
Reheat in steam W	TT013		l			I	L

Furn 3rd Pass side wall RSR1	TT301	°F				
Furn 3rd Pass side wall RSR9	TT318	°F				
Conv. Pass side wass RSR1	TT340	°F				
Conv. Pass side wass RSR9	TT348	°F				
Conv. Pass front wall RSR1	TT360	°F				
Conv. Pass rear wall tube 1	TT367	°F				
Furn 1st pass RSR1	TT571	°F				
Furn 1st pass RSR9	TT579	°F				
Rear wall 2nd pass tube 1	TT601	°F				
Furn floor tube panel #1	TT793	°F		sin.		
Furn floor tube panel #4	TT800	°F	CONTROL OF A STATE OF	CONSTRUCT ACCOUNTS CONSTR		
SWU cyc reent thrt rsr bef tee	TT543	°F	ments entros. entroses. etcenores a maintanages.	SECTION OF THE PROPERTY OF T		
SEL cyc reent thrt rsr bef tee	TT545	°F	internal unacces electronia consecuta	Materials and Characterist (1900) of the Charact		
SEU cyc reent thrt rsr bef tee	TT547	°F	Secretarion of the Control of the Co	MON. ADMINISTRATION AND ADMINISTRATION OF ADMINI	paper was true, speed	
NWU cyc reent thrt rsr bef tee	TT549	°F	ARTHUR STATE TO THE STATE OF TH	92-90,136 92-90,136 93-90,136	TOTAL CONTROL OF THE STATE OF T	
NWL cyc reent thrt rsr bef tee	TT551	°F	ACTIVITIES ACTIVITI ACTIVITIES ACTIVITIES ACTIVITIES ACTIVITIES ACTIVITIES ACTIVITI AC		TO A SECRET SERVICE SE	
NEU cyc reent thrt rsr bef tee	TT553	°F	######################################	AL CONTROL CON	***************************************	
NEL cyc reent thrt rsr bef tee	TT555	°F	1980a0001 960a0 1960	Description territ, permitting control territ, p		
Notes including list of equipment out of service		STATES AND	CONTROLOGIA (MA) CONTROLOGIA (MA) CONTROLOGIA (MA) CONTROLOGIA CON	The control of the co	anin Maria ur	

Example Gross Heat Rate Calculation =

Fuel burned (klbs) * fuel higher heating value (Btu/lb) / gross MW-generated

Average Heat Rate Calculation for the complete testing period =

Application of the control of the co	MAY ALAMANDA A		
700	AND THE PROPERTY OF THE PROPER	ewed by:	Approved by:
WRITTEN BY	APPRO	TMENT HEAD	STATION SUPERINTENDENT APPROVED
Kim Weir	Mike W	hite	Dan Rembold