August 11, 2014

Jeffery F. Koerner, Administrator
Jeff.Koerner@dep.state.fl.us

Florida Department of Environmental Protection
Office of Permitting and Compliance
Division of Air Resources Management
2600 Blair Stone Road, MS # 5505
Tallahassee, Florida 32399-2400

Re: Permitted Capacity after Installation of the GE Series 7FA.04
Unit 5 Turkey Point Florida Power & Light (FPL)
Permit No. 0250003-024-AC/PSD-FL-338B

In accordance with the Permit No. 0250003-024-AC/PSD-FL-338B Section 5, Subsection III – Specific Condition A.6, Permitted Capacity: FPL is providing the required information regarding updated manufacturer's performance curves that correct for site conditions after installation of the GE Series 7FA.04 components. Please find attached updated performance curves for FPL Turkey Point Units 5A, 5B, 5C and 5D.

If you have any question or need additional information, please contact me at your convenience.

Sincerely,

Rudy Sanchez
PGD Regional Plant General Manager – FPL Turkey Point
Florida Power & Light Company

cc via email:

Katy Lusky (Forney):	Forney.kathleen@Epa.gov
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Rick Garcia	Garcima@miamidade.gov
Kevin Washington:	Kevin.Washington@fpl.com

(attachment)

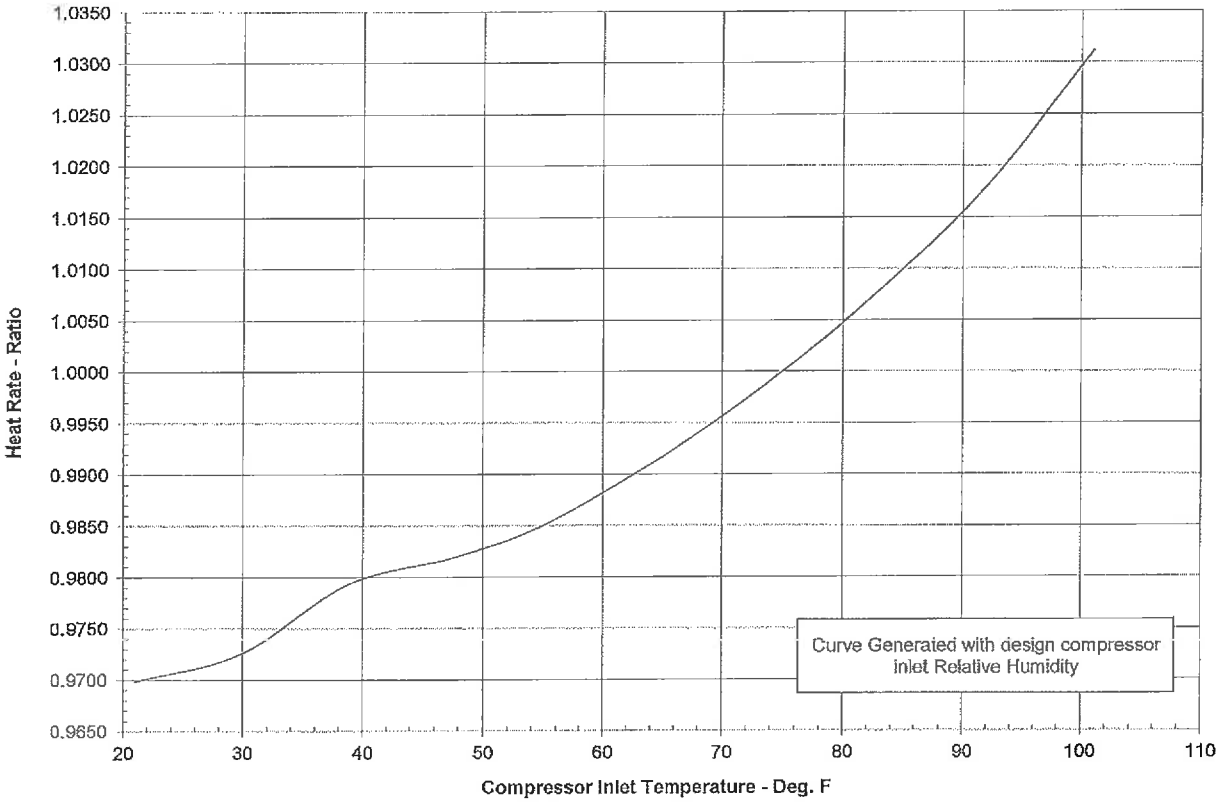
FPL Turkey Point Unit 5A

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Compressor Inlet Temperature on Heat Rate

Design Values Referenced on 101H0017 Rev C Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298559 ONLY



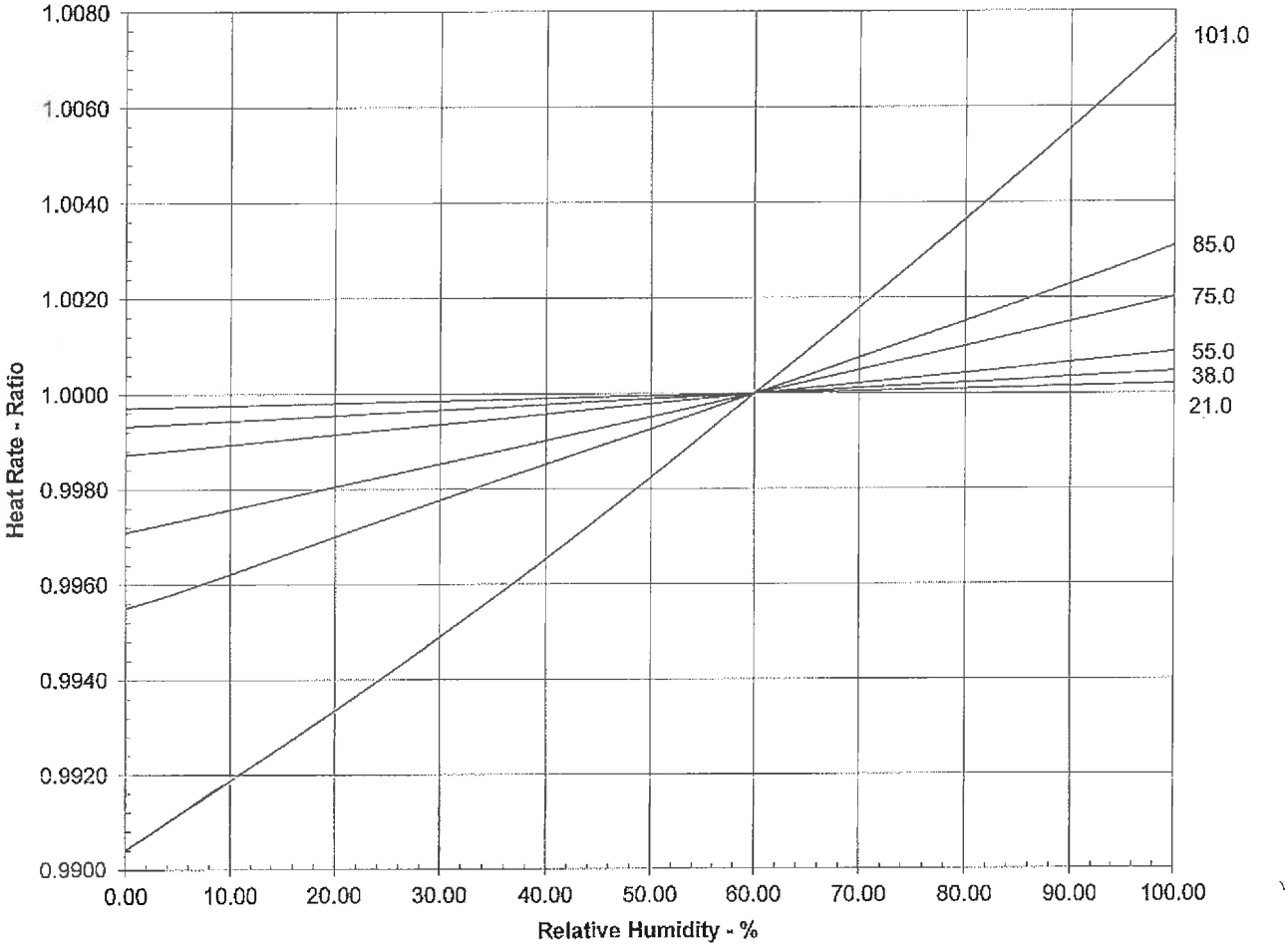
	Units										
Compressor Inlet Temperature	F	21.00	29.89	38.78	47.67	55.00	65.44	75.00	83.22	92.11	101.00
Heat Rate Ratio		0.96985	0.97257	0.97930	0.98195	0.98506	0.99204	1.00000	1.00810	1.01816	1.03121

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Relative Humidity on Heat Rate at Different Compressor Inlet Temperatures

Design Values Referenced on 101H0017 Rev C Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298559 ONLY



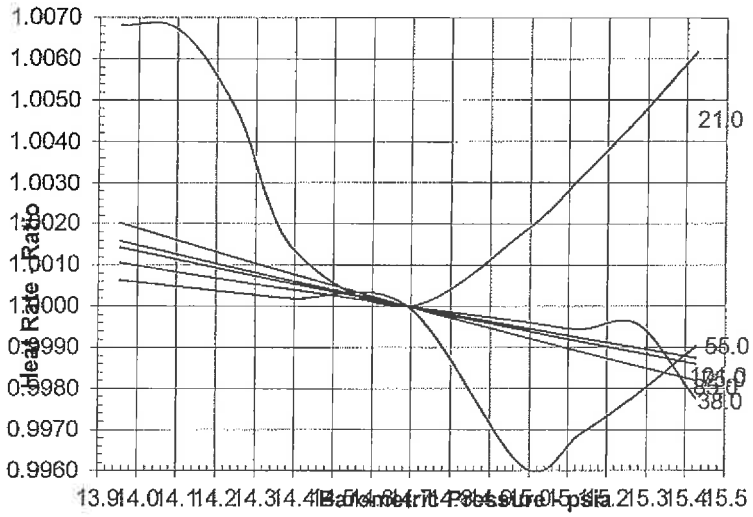
Compressor Inlet Temperature - Deg. F

Relative Humidity - %	21.0	38.0	55.0	75.0	85.0	101.0
60.0	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
0	0.99971	0.99932	0.99872	0.99710	0.99551	0.99041
20	0.99980	0.99955	0.99915	0.99805	0.99700	0.99335
40	0.99990	0.99977	0.99957	0.99902	0.99852	0.99654
50	0.99995	0.99989	0.99979	0.99951	0.99926	0.99824
60	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
70	1.00005	1.00011	1.00022	1.00050	1.00076	1.00180
80	1.00010	1.00023	1.00043	1.00100	1.00152	1.00365
100	1.00020	1.00046	1.00087	1.00201	1.00309	1.00749

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Barometric Pressure on Heat Rate at Different Compressor Inlet Temps
Design Values Referenced on 101H0017 Rev C Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298559 ONLY



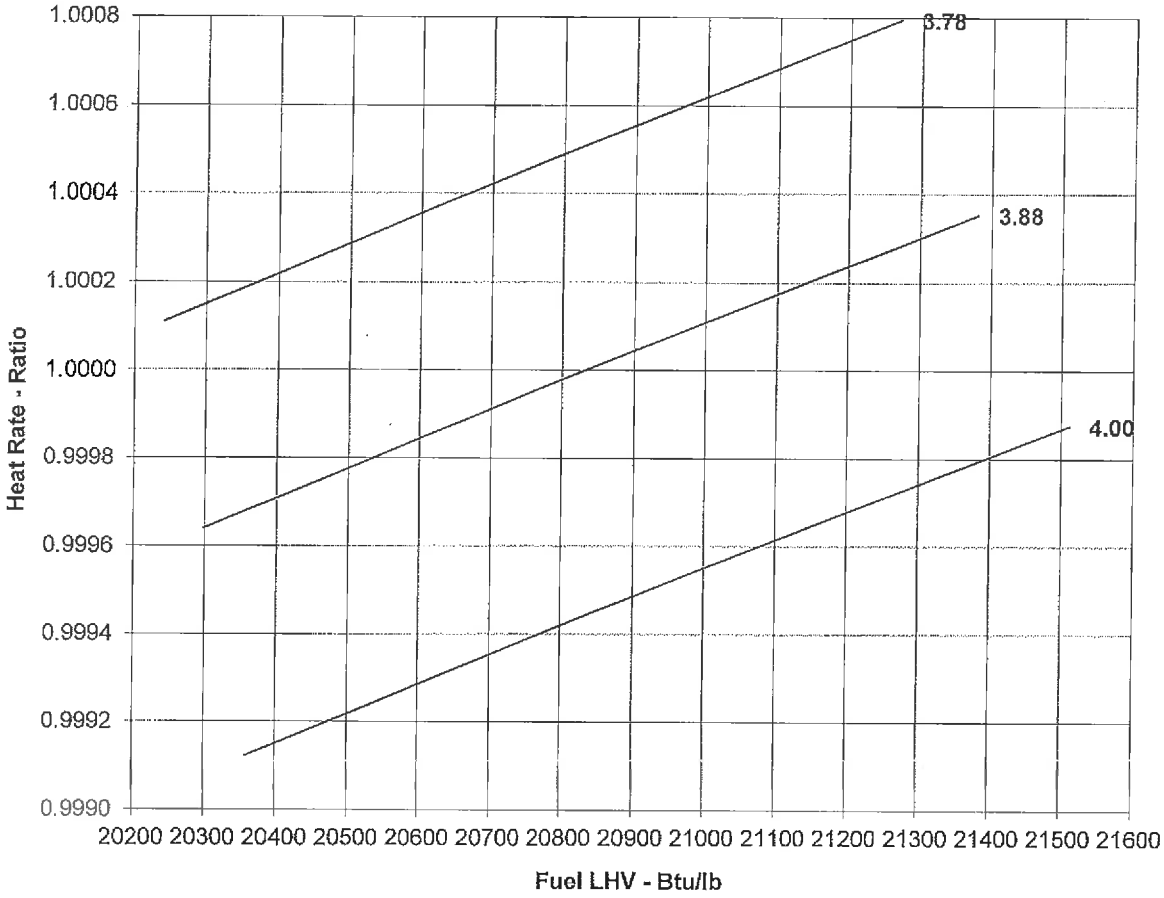
Barometric Pressure - psia	Compressor Inlet Temperature - Deg. F					
	21.0	38.0	55.0	75.0	85.0	101.0
13.96	1.00682	1.00063	1.00105	1.00143	1.00159	1.00202
14.10	1.00670	1.00048	1.00083	1.00113	1.00125	1.00160
14.25	1.00477	1.00033	1.00061	1.00083	1.00093	1.00118
14.40	1.00140	1.00019	1.00040	1.00055	1.00061	1.00078
14.69	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
14.98	1.00181	0.99610	0.99962	0.99948	0.99942	0.99926
15.13	1.00313	0.99688	0.99944	0.99923	0.99914	0.99890
15.28	1.00459	0.99787	0.99956	0.99898	0.99887	0.99854
15.42	1.00617	0.99902	0.99777	0.99874	0.99860	0.99820

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Gas Fuel Composition on Heat Rate

Design Values Referenced on 101H0017 Rev C Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298559 ONLY



Fuel LHV - Btu/lb	Fuel H/C: 4.00
21511	0.99988
20923	0.99950
20359	0.99912

Fuel LHV - Btu/lb	Fuel H/C: 3.88
21381	1.00035
20831	1.00000
20297	0.99964

Fuel LHV - Btu/lb	Fuel H/C: 3.78
21269	1.00079
20748	1.00046
20241	1.00011

NOTES: H/C ratio is the atom ratio of the combustible components of the gas fuel
Heating Value calculated per ASTM D3588 (14.696 psia, 60 deg F)

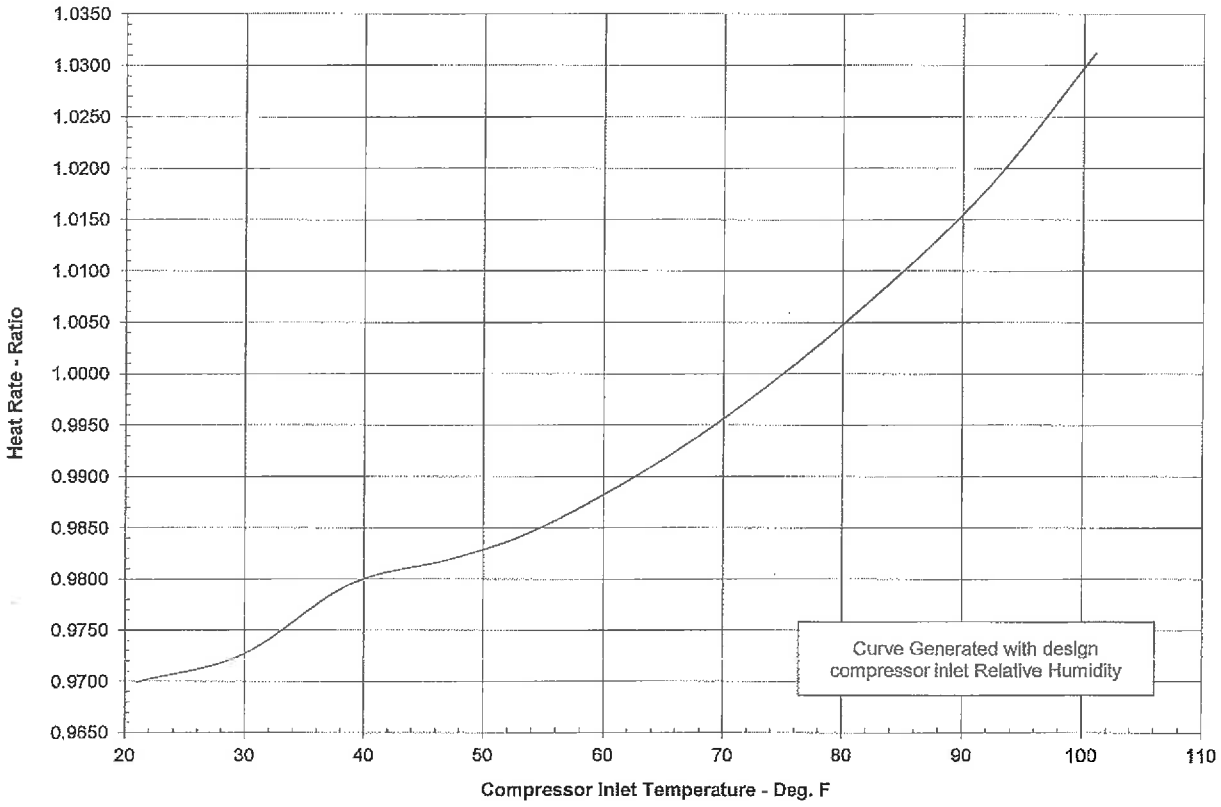
FPL Turkey Point Unit 5B

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Compressor Inlet Temperature on Heat Rate

Design Values Referenced on 101H0017 Rev F Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298560 ONLY



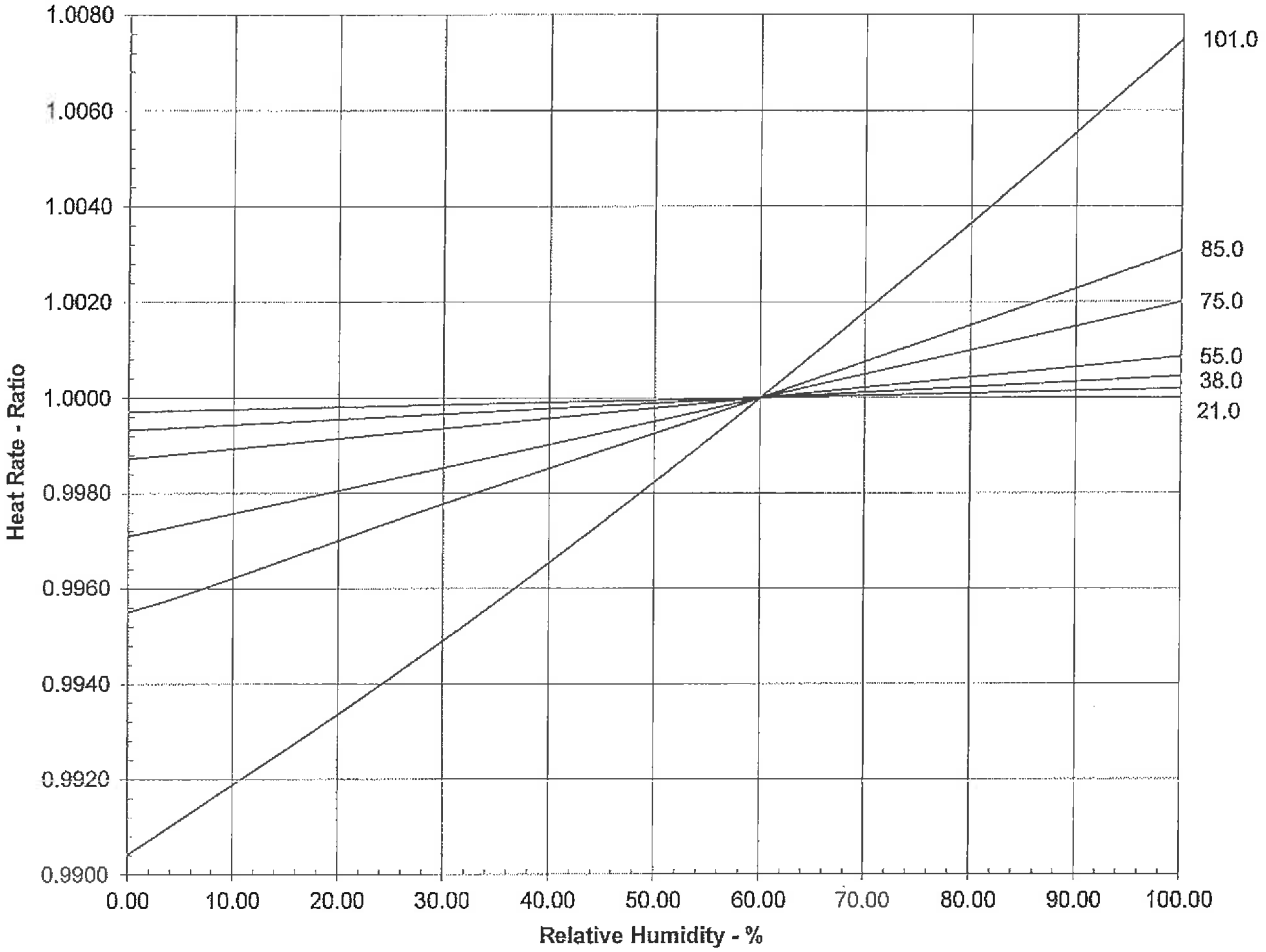
	Units										
Compressor Inlet Temperature	F	21.00	29.89	38.78	47.67	55.00	65.44	75.00	83.22	92.11	101.00
Heat Rate Ratio		0.96994	0.97267	0.97947	0.98207	0.98514	0.99205	1.00000	1.00809	1.01813	1.03119

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Relative Humidity on Heat Rate at Different Compressor Inlet Temperatures

Design Values Referenced on 101H0017 Rev F Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298560 ONLY



Compressor Inlet Temperature - Deg. F

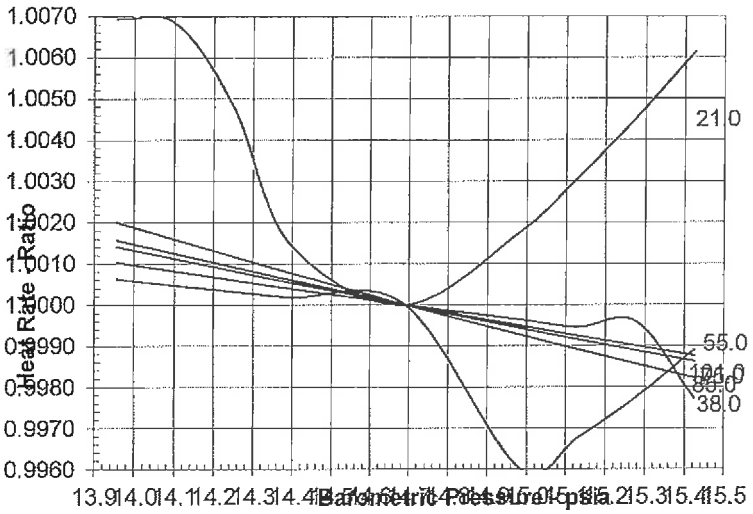
Relative Humidity - %	21.0	38.0	55.0	75.0	85.0	101.0
60.0	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
0	0.99971	0.99932	0.99872	0.99710	0.99551	0.99042
20	0.99981	0.99955	0.99914	0.99806	0.99701	0.99336
40	0.99990	0.99977	0.99957	0.99902	0.99852	0.99654
50	0.99995	0.99989	0.99979	0.99951	0.99926	0.99824
60	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
70	1.00005	1.00011	1.00022	1.00050	1.00075	1.00180
80	1.00010	1.00023	1.00043	1.00100	1.00152	1.00365
100	1.00020	1.00046	1.00087	1.00201	1.00309	1.00748

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Barometric Pressure on Heat Rate at Different Compressor Inlet Temps

Design Values Referenced on 101H0017 Rev F Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298560 ONLY



Compressor Inlet Temperature - Deg. F

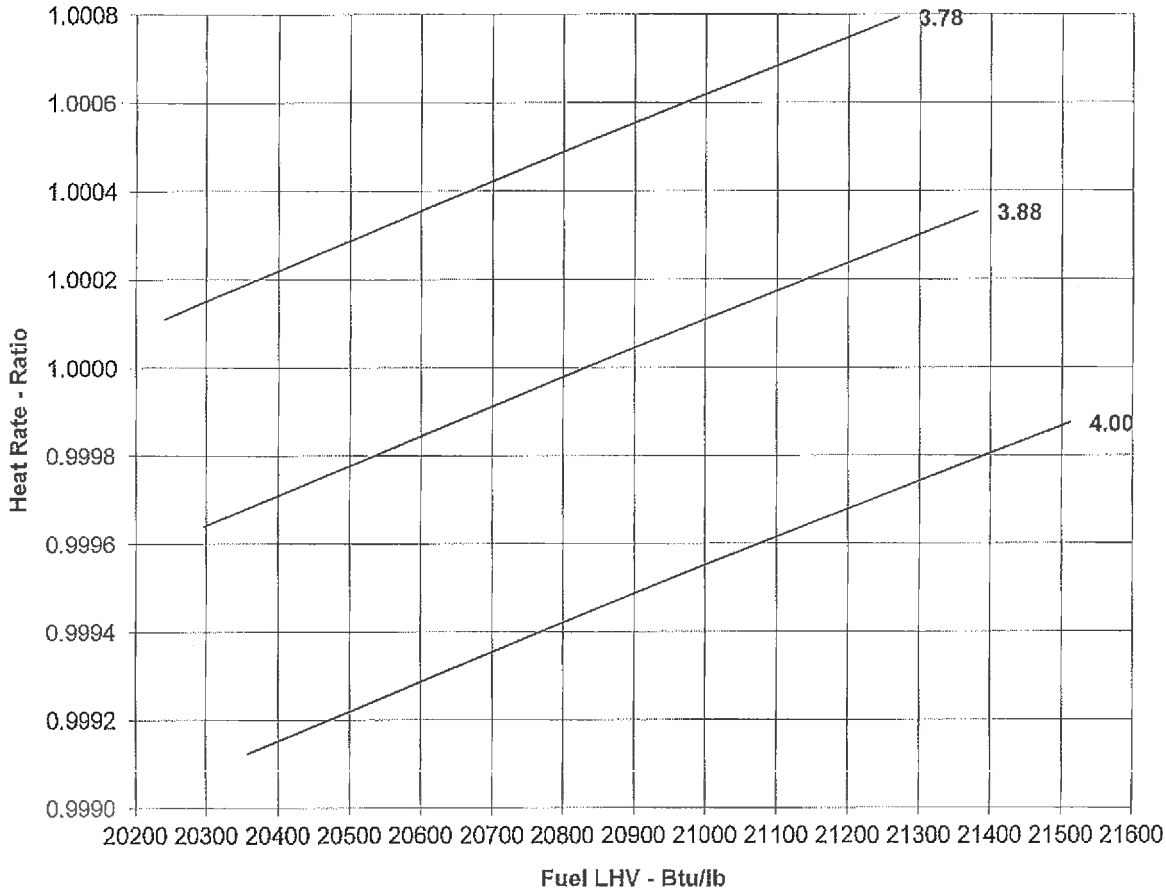
Barometric Pressure - psia	21.0	38.0	55.0	75.0	85.0	101.0
13.96	1.00694	1.00062	1.00103	1.00141	1.00157	1.00200
14.10	1.00682	1.00047	1.00081	1.00111	1.00124	1.00158
14.25	1.00481	1.00032	1.00060	1.00082	1.00092	1.00117
14.40	1.00146	1.00018	1.00039	1.00054	1.00060	1.00077
14.69	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
14.98	1.00178	0.99600	0.99963	0.99949	0.99943	0.99926
15.13	1.00310	0.99677	0.99945	0.99924	0.99915	0.99891
15.28	1.00455	0.99775	0.99958	0.99900	0.99888	0.99856
15.42	1.00614	0.99890	0.99772	0.99876	0.99862	0.99822

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Gas Fuel Composition on Heat Rate

Design Values Referenced on 101H0017 Rev F Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298560 ONLY



Fuel LHV - Btu/lb	Fuel H/C 4.00
21511	0.99988
20923	0.99950
20359	0.99912

Fuel LHV - Btu/lb	Fuel H/C 3.88
21381	1.00035
20831	1.00000
20297	0.99964

Fuel LHV - Btu/lb	Fuel H/C 3.78
21269	1.00079
20748	1.00046
20241	1.00011

NOTES: H/C ratio is the atom ratio of the combustible components of the gas fuel
Heating Value calculated per ASTM D3588 (14.696 psia, 60 deg F)

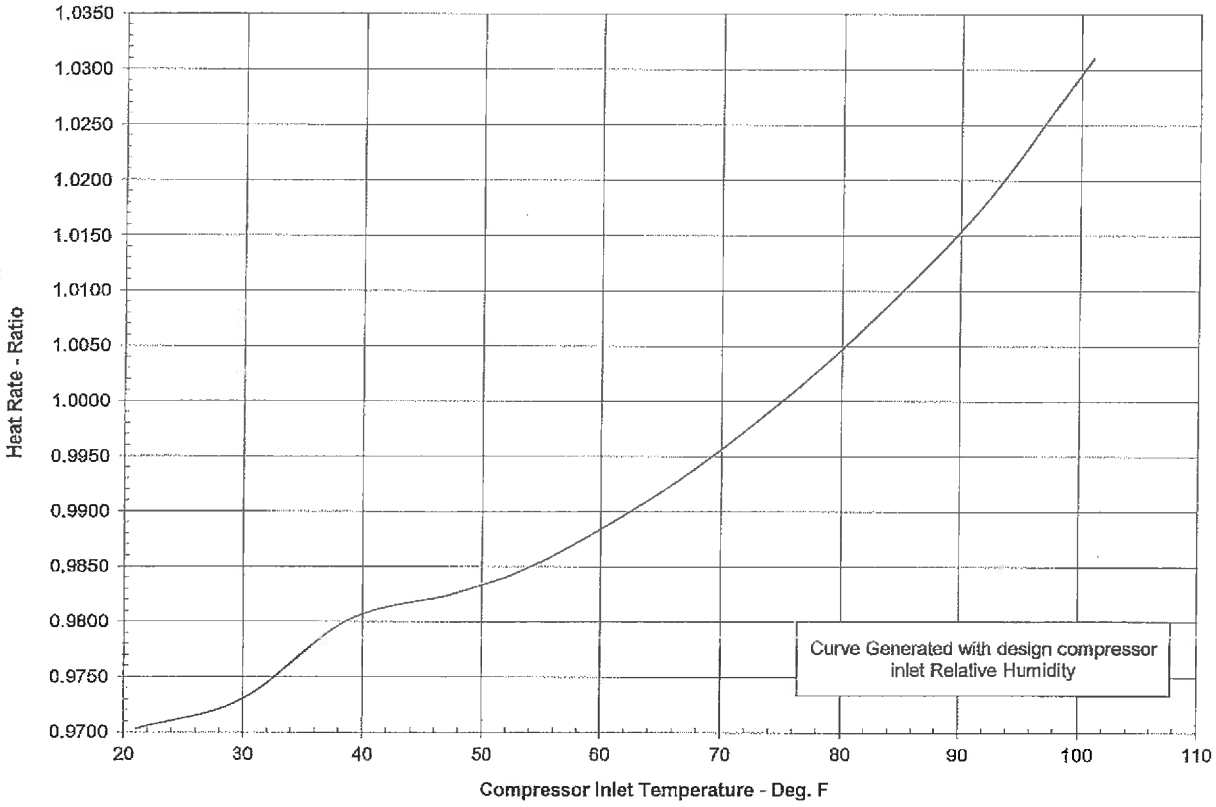
FPL Turkey Point Unit 5C

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Compressor Inlet Temperature on Heat Rate

Design Values Referenced on 102H0016 Rev C Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298558 ONLY



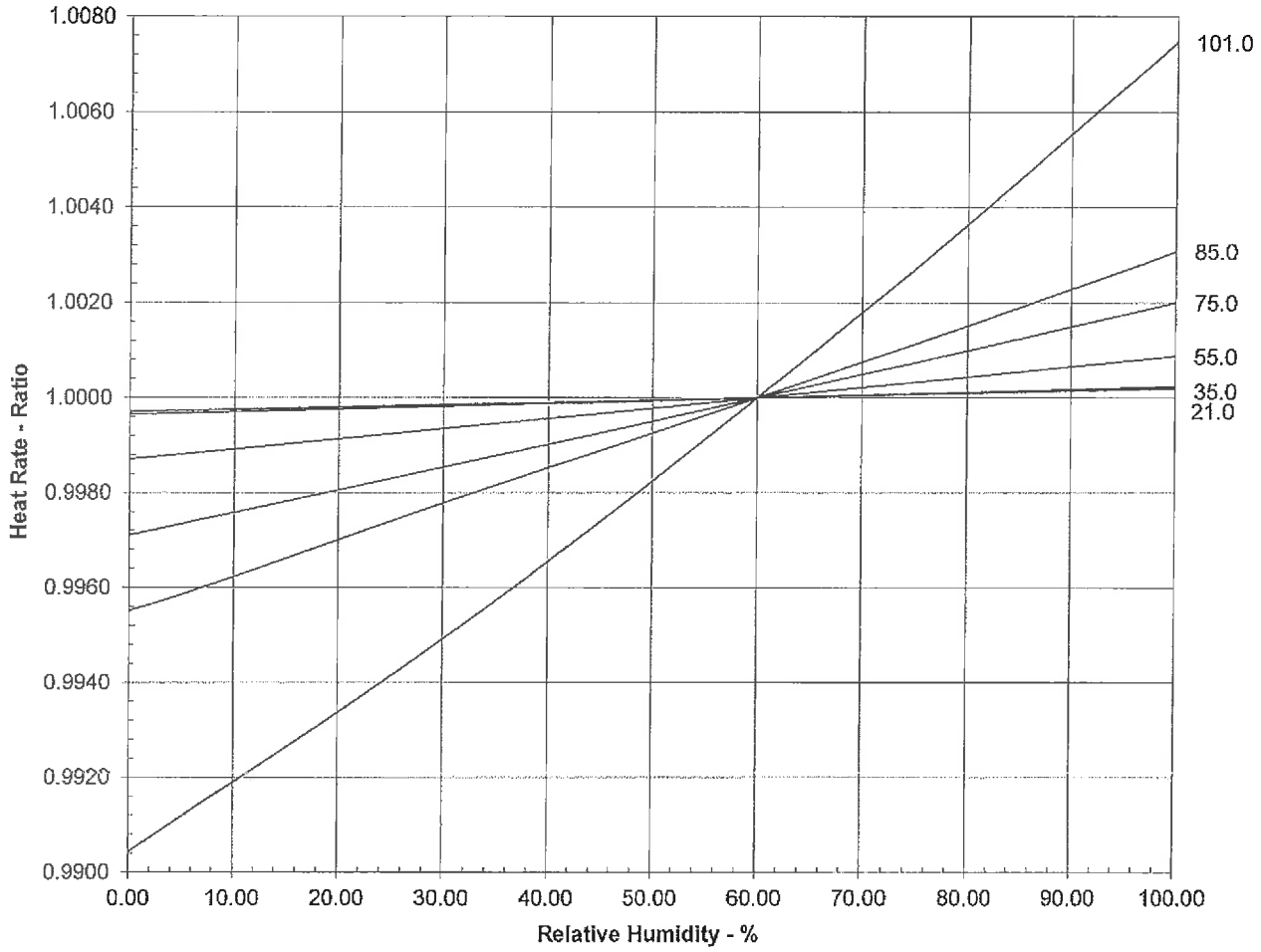
	Units										
Compressor Inlet Temperature	F	21.00	29.89	38.78	47.67	55.00	65.44	75.00	83.22	92.11	101.00
Heat Rate Ratio		0.97034	0.97300	0.98014	0.98258	0.98548	0.99210	1.00000	1.00805	1.01804	1.03108

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Relative Humidity on Heat Rate at Different Compressor Inlet Temperatures

Design Values Referenced on 102H0016 Rev C Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298558 ONLY



Compressor Inlet Temperature - Deg. F

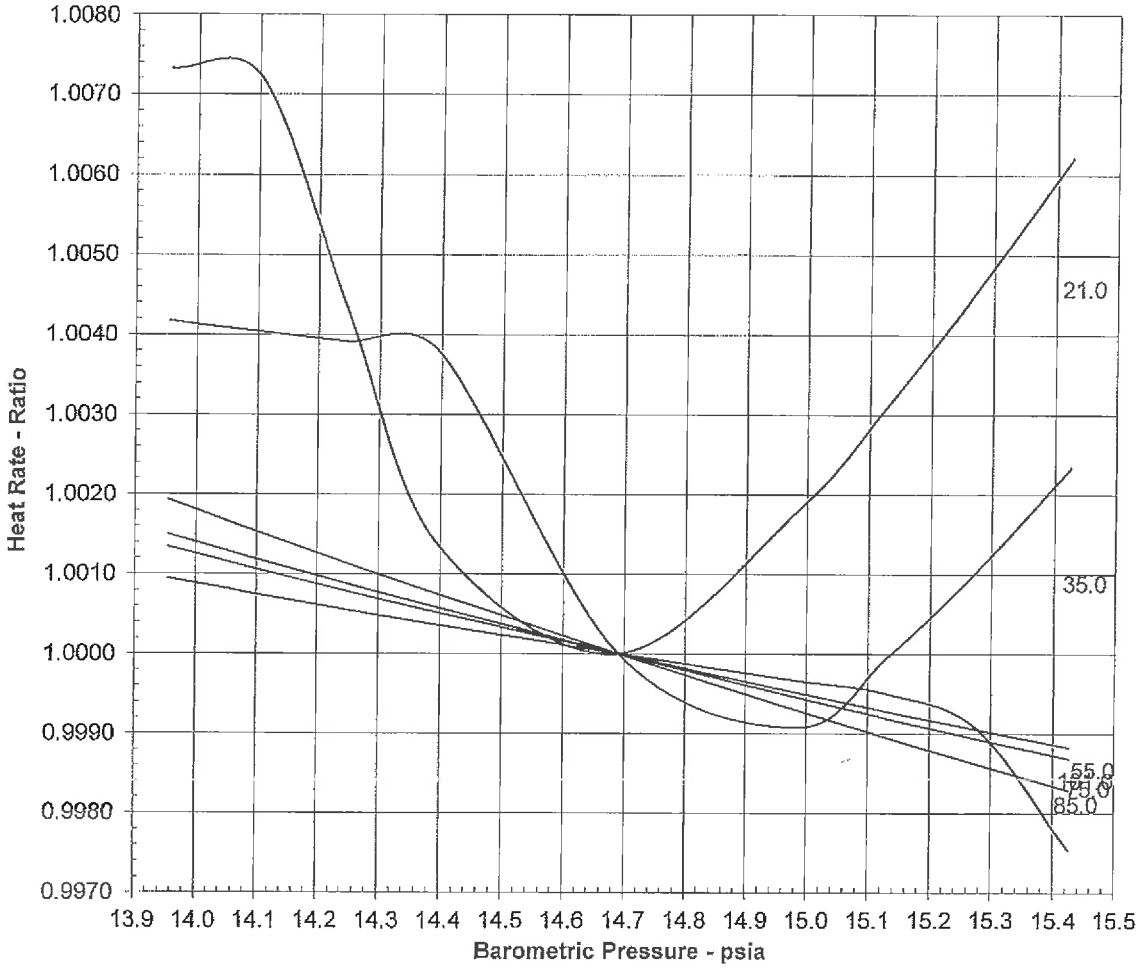
Relative Humidity - %	21.0	35.0	55.0	75.0	85.0	101.0
60.0	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
0	0.99971	0.99965	0.99871	0.99711	0.99552	0.99044
20	0.99980	0.99976	0.99913	0.99806	0.99701	0.99337
40	0.99990	0.99988	0.99957	0.99902	0.99853	0.99655
50	0.99995	0.99994	0.99978	0.99951	0.99926	0.99825
60	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
70	1.00005	1.00006	1.00022	1.00049	1.00075	1.00180
80	1.00010	1.00012	1.00044	1.00099	1.00152	1.00365
100	1.00020	1.00024	1.00088	1.00200	1.00308	1.00747

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Barometric Pressure on Heat Rate at Different Compressor Inlet Temps

Design Values Referenced on 102H0016 Rev C Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298558 ONLY



Compressor Inlet Temperature - Deg. F

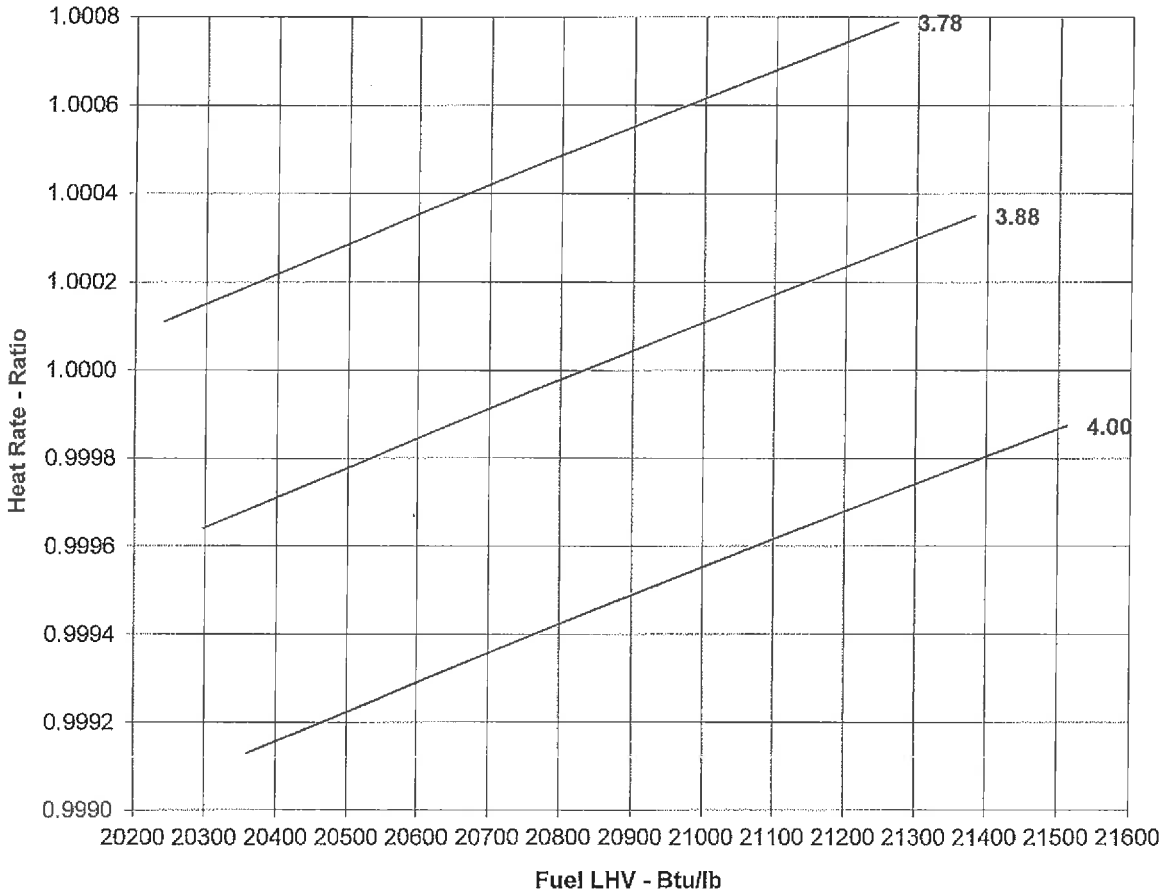
Barometric Pressure - psia	21.0	35.0	55.0	75.0	85.0	101.0
13.96	1.00733	1.00417	1.00094	1.00134	1.00150	1.00193
14.10	1.00722	1.00404	1.00074	1.00106	1.00118	1.00153
14.25	1.00427	1.00391	1.00055	1.00078	1.00088	1.00113
14.40	1.00136	1.00379	1.00036	1.00051	1.00058	1.00075
14.69	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
14.98	1.00180	0.99907	0.99966	0.99951	0.99945	0.99929
15.13	1.00314	0.99996	0.99950	0.99928	0.99919	0.99895
15.28	1.00461	1.00106	0.99905	0.99905	0.99893	0.99861
15.42	1.00621	1.00233	0.99754	0.99882	0.99868	0.99829

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Gas Fuel Composition on Heat Rate

Design Values Referenced on 102H0016 Rev C Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298558 ONLY



Fuel LHV - Btu/lb	Fuel H/C 4.00
21511	0.99987
20923	0.99950
20359	0.99913

Fuel LHV - Btu/lb	Fuel H/C 3.88
21381	1.00035
20831	1.00000
20297	0.99964

Fuel LHV - Btu/lb	Fuel H/C 3.78
21269	1.00079
20748	1.00045
20241	1.00011

NOTES: H/C ratio is the atom ratio of the combustible components of the gas fuel
Heating Value calculated per ASTM D3588 (14.696 psia, 60 deg F)

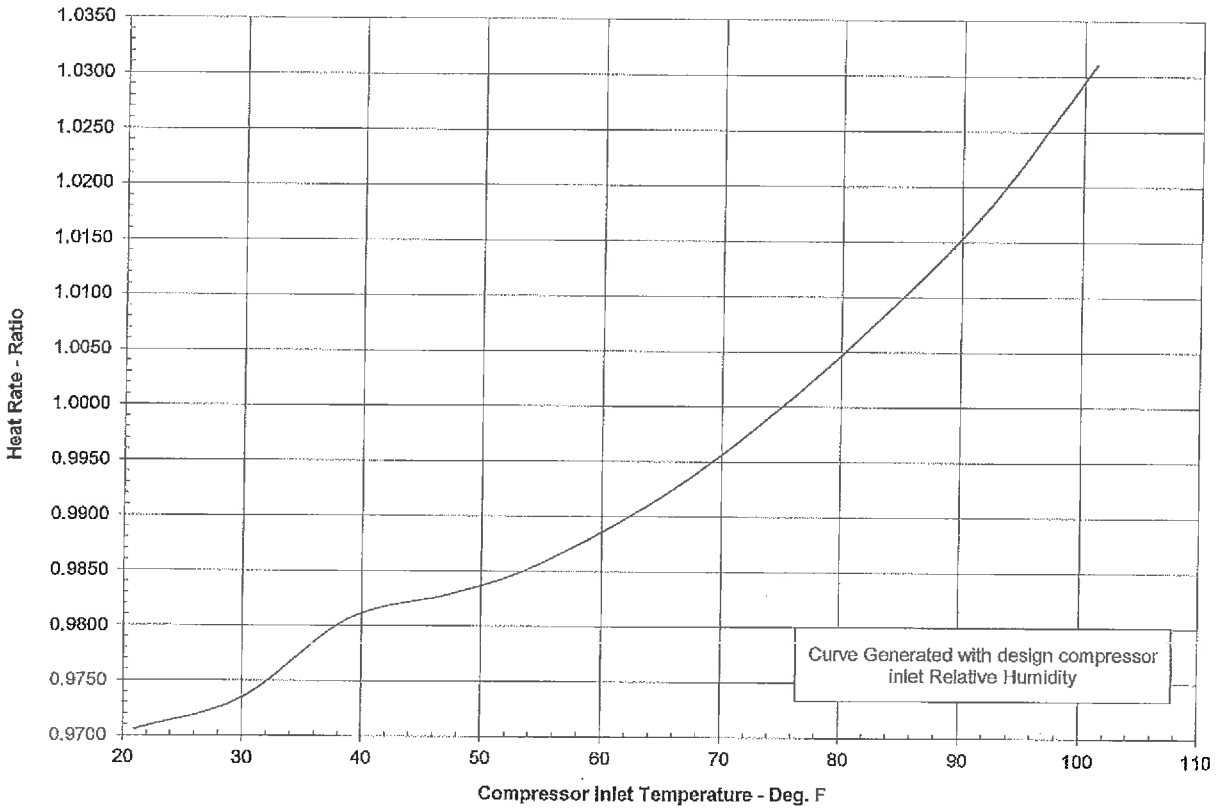
FPL Turkey Point Unit 5D

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Compressor Inlet Temperature on Heat Rate

Design Values Referenced on 102H0036 Rev B Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298557 ONLY



	Units										
Compressor Inlet Temperature	F	21.00	29.89	38.78	47.67	55.00	65.44	75.00	83.22	92.11	101.00
Heat Rate Ratio		0.97058	0.97343	0.98060	0.98297	0.98576	0.99215	1.00000	1.00802	1.01799	1.03102

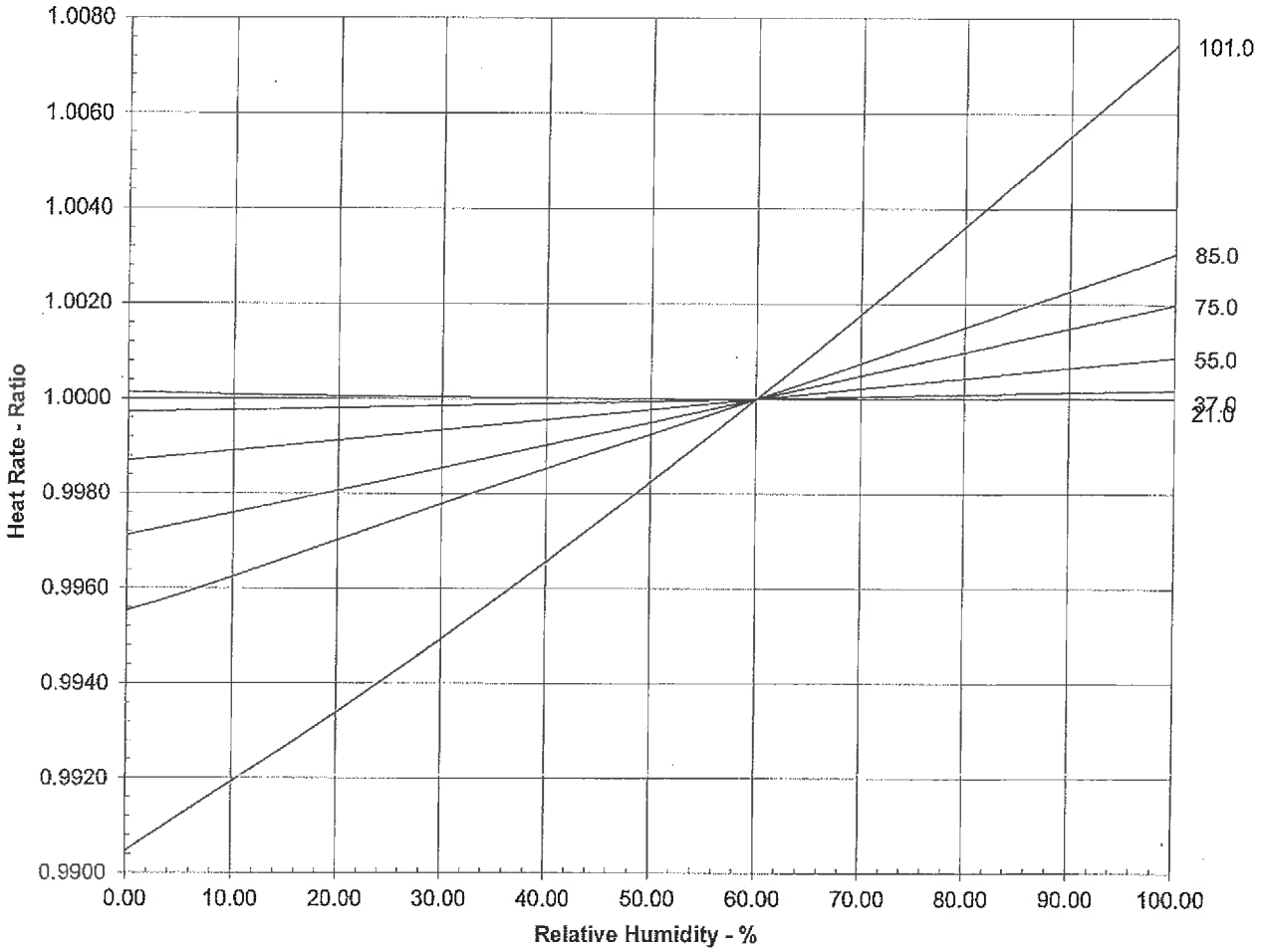
Bryson Cook
06/30/14

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Relative Humidity on Heat Rate at Different Compressor Inlet Temperatures

Design Values Referenced on 102H0036 Rev B Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298557 ONLY



Compressor Inlet Temperature - Deg. F

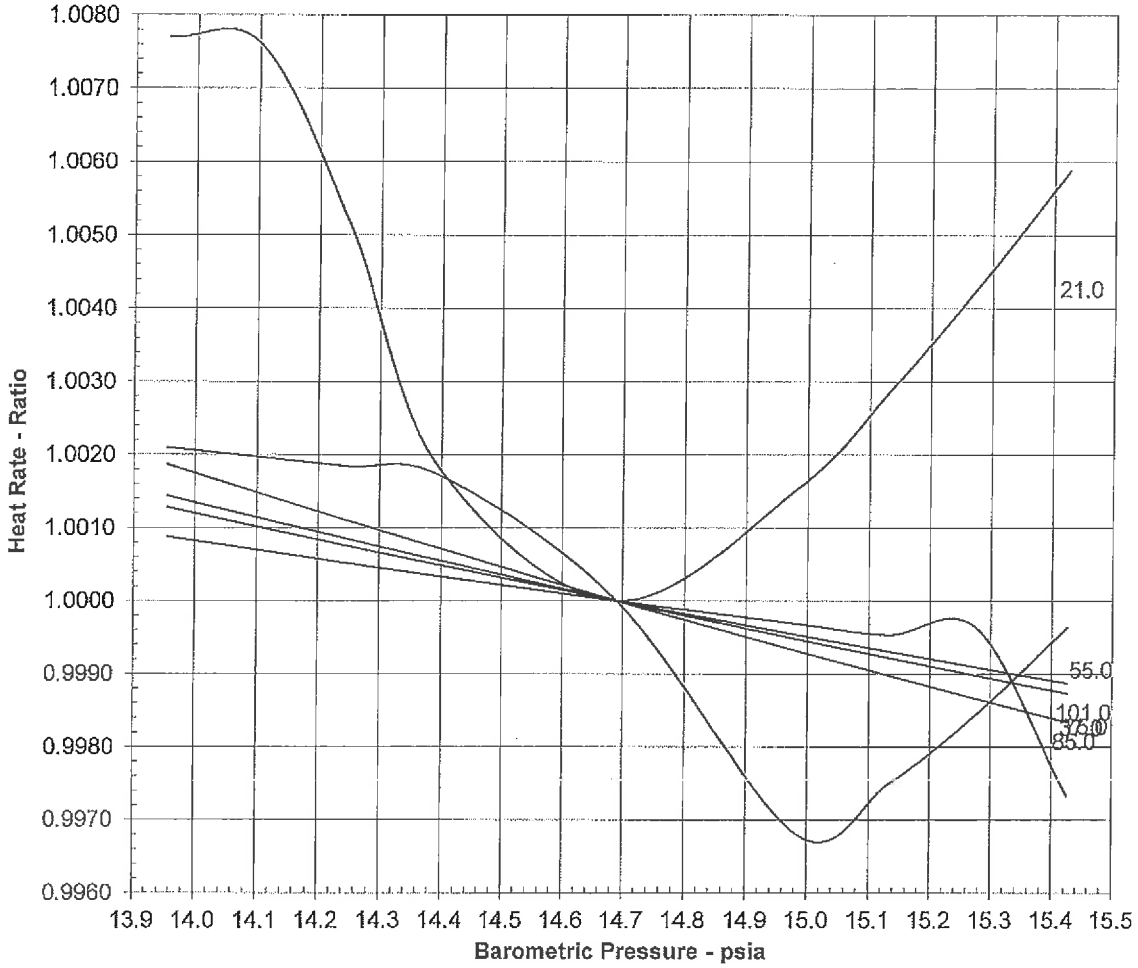
Relative Humidity - %	21.0	37.0	55.0	75.0	85.0	101.0
60.0	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
0	0.99972	1.00013	0.99870	0.99712	0.99554	0.99047
20	0.99981	1.00006	0.99913	0.99807	0.99702	0.99339
40	0.99990	1.00002	0.99956	0.99903	0.99853	0.99656
50	0.99995	1.00001	0.99978	0.99951	0.99926	0.99826
60	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
70	1.00005	1.00000	1.00022	1.00049	1.00075	1.00179
80	1.00010	1.00000	1.00044	1.00099	1.00151	1.00363
100	1.00019	1.00002	1.00088	1.00200	1.00307	1.00744

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

Effect of Barometric Pressure on Heat Rate at Different Compressor Inlet Temps

Design Values Referenced on 102H0036 Rev B Sheet 1
Fuel: Gas
Mode: Base
Gas Turbine Generator(s) 298557 ONLY



Compressor Inlet Temperature - Deg. F

Barometric Pressure - psia	21.0	37.0	55.0	75.0	85.0	101.0
13.96	1.00770	1.00210	1.00088	1.00128	1.00144	1.00186
14.10	1.00759	1.00197	1.00069	1.00101	1.00113	1.00147
14.25	1.00514	1.00184	1.00051	1.00075	1.00084	1.00109
14.40	1.00182	1.00172	1.00033	1.00049	1.00055	1.00072
14.69	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
14.98	1.00154	0.99680	0.99968	0.99953	0.99947	0.99931
15.13	1.00285	0.99748	0.99953	0.99931	0.99922	0.99898
15.28	1.00430	0.99846	0.99962	0.99909	0.99898	0.99866
15.42	1.00588	0.99964	0.99734	0.99888	0.99874	0.99834

General Electric Model 7FA.04 Gas Turbine
Turkey Point F7006G32

Estimated Performance

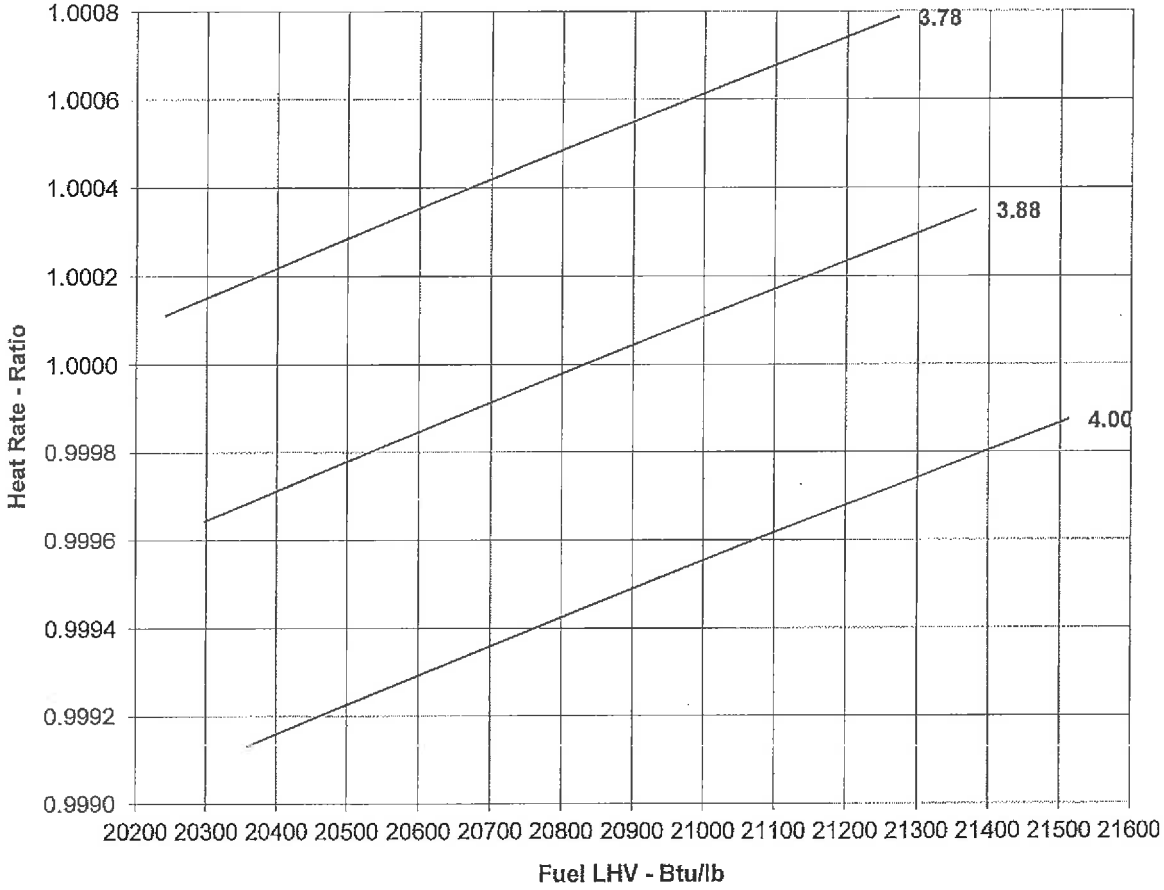
Effect of Gas Fuel Composition on Heat Rate

Design Values Referenced on 102H0036 Rev B Sheet 1

Fuel: Gas

Mode: Base

Gas Turbine Generator(s) 298557 ONLY



Fuel LHV - Btu/lb	Fuel H/C 4.00
21511	0.99987
20923	0.99951
20359	0.99913

Fuel LHV - Btu/lb	Fuel H/C 3.88
21381	1.00035
20831	1.00000
20297	0.99964

Fuel LHV - Btu/lb	Fuel H/C 3.78
21269	1.00079
20748	1.00045
20241	1.00011

NOTES: H/C ratio is the atom ratio of the combustible components of the gas fuel
Heating Value calculated per ASTM D3588 (14.696 psia, 60 deg F)