From: <larry.swanson@ps.ge.com>
To: <jim-n@ipsc.com>, <garry-c@ipsc.com>
Date: 12/20/02 9:23AM
Subject: Meeting at 10:00 Mountain Time

James/Garry,

Just a reminder that the conference access number and code for our meeting today is: 1-800-830-0630 and SWANSONL. Talk to you soon.

> g GE Power Systems
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Increment	x (m)	x (ft)	BASELINE T (K)	T (F)
1	1.763	5.78	1346.12	1963.35
2	5.29	17.36	1473.22	2192.13
3	8.82	28.94	1584.34	2392.14
4	11.529	37.82	1727.36	2649.58
5	14.53	47.67	1817.51	2811.85
6	18.956	62.19	1853.88	2877.31
7	23.564	77.31	1855.75	2880.68
8	27.989	91.83	1855.44	2880.12
9	31.849	104.49	1849.83	2870.02
10	34.668	113.74	1823.17	2822.04
11	37.221	122.11	1795.54	2772.30
12	40.04	131.36	1761.42	2710.89
13	42.86	140.62	1735.12	2663.55
14	45.681	149.87	1703.02	2605.77
15	48.464	159.00	1670.46	2547.16
16	51.854	170.12	1636.07	2485.26
17	54.412	178.51	1623.59	2462.79
18	55.489	182.05	1612.38	2442.61
19	56.566	185.58	1591.42	2404.89
20	59.862	196.40	1465.08	2177.47
21	65.301	214.24	1287.57	1857.96
22	69.507	228.04	1192.35	1686.56
23	71.651	235.07	1168.99	1644.51
24	73.46	241.01	1043.95	1419.44
25	75.501	247.70	1027.74	1390.26

AIR CURVES

- OFA FLOW VS. LOAD
- COOLING FLOW VS. LOAD
- OFA COMPARTMENT PRESSURE VS LOAD

FLOW VANE IN OFA PORT

TABLE 1 COMPARISON OF BASELINE PERFORMANCE WITH AND WITHOUT OVERFIRE AIR (ADDITION OF PLATEN SH AREA)

IPP - Utah Unit 2

x 2.5%

	Uprated Nominal (950 MW)	Uprated Nominal Add Pl SH area	Uprated Nominal Add Pl SH area (Dirty WW by 3.33%)	10 % OFA Add Pl SH area	10 % OFA Add Pl SH area (Dirty WW by 10 %)					
Flue Gas O_2 (% dry)	2.50	2 50	2.50	2.50	2 50	2.5	2 5	2.5	2.5	2 5
Fuel Flow Rate (1000 lb/hr)	679	679	679	679	679	85.5378	85 5378	85.5378	85 5378	85 5378
Flue gas Temperature (°F) Leaving										
FEGT	2,374	2,385	2,375	2,332	2,348	1574	1580.5	1575	1551	1560
Backpass Inlet	1,384	1,375	1,377	1,377	1,387	1024.03	1019.17	1020.57	1020.39	1026 07
Pri RH	759	757	767	767	760	677.18	676 16	681.48	681.56	677 61
Economizer	735	734	726	726	736	663.88	662 92	658 98	658.88	664.32
Air Preheater										
Mixing cup temperature (°F) leaving										
Backpass	746	744	745	745	747					
Flow Rates (1000 lb/hr)										
Main Steam	6,664	6,680	6,656	6,689	6,648	839.91	841 96	838.87	843	837.9
Reheat Steam	5,501	5,515	5,494	5,522	5,488	693.31	695.04	692.48	695.9	691.69
Attemperation flow (1000 lb/hr)										
Superheater	26	58	49	0	51	3.231	7.357	6.216	0	6 372
Reheater	0	0	0	0	0	0	0	0	0	0
Flue gas split in Backpass (%)										
Pri RH	43 95	43.95	45 51	45 51	43 95	43.95	43 95	45.51	45.51	43.95
Pri SH / Econ	56 05	56 05	54 49	54 49	56 05	56.05	56.05	54 49	54.49	56 05
Water/Steam Temperatures (°F)										
Economizer In	549	549	549	549	549	560.22	560 22	560.22	560.22	560 22
Economizer Out	581	581	580	580	581	578.05	577 93	577.54	577.33	578 22
Waterwall Out	678	678	678	678	678	631.92	631.92	631.92	631.92	631.92
Pri SH Out										
Platen SH Out	781	791	790	785	791	689.52	694 87	694 39	691 75	694.65
SH-Int Out										
SH-Out Out	999	999	999	996	999	810.38	810 38	810.38	808.82	810 38
Cold RH In	630	630	630	630	630	605.28	605 28	605.28	605.28	605.28
Cold RH Out	816	813	819	820	818	708.82	707 08	710 31	710.76	709.57
Hot RH Out	1,005	996	1,005	1,000	1,005	813.43	808.97	813.63	810.85	813.78
Percent Carbon in ash	0 446	0.459	0.445	1.024	0.992	0.4455	0 4588	0.445	1 0237	0 9923
Heat Absorption (kW)										
Economizer	78,934	78,198	76,221	76,204	79,228	78934	78198	76221	76204	79228
Waterwall	950,152	948,339	947,909	960,657	943,529	950152	948339	947909	960657	943529
Primary SH	245,115	243,545	242,199	242,862	245,316	245115	243545	242199	242862	245316
Platen SH	155,815	175,636	174,296	169,291	171,547	155815	175636	174296	169291	171547
SH Int	242,479	235,572	234,501	230,521	232,710	242479	235572	234501	230521	232710
SH Out	119,782	117,390	116,390	114,084	117,214	119782	117390	116390	114084	117214
Pri RH	175,308	173,200	177,505	177,363	176,170	175308	173200	177505	177363	176170
RH Out	166,082	162,008	163,794	161,227	161,979	166082	162008	163794	161227	161979
Total Heat Absorption (kW)	2,133,667	2,133,888	2,132,815	2,132,209	2,127,693					
ASME Heat Loss Efficiency (%)	89 12	89 12	89 12	89.04	89 05					
Reported Boiler Efficiency (%)										
Boiler I/O Efficiency (%)										

- OFA - PENETRATION/MIXING/ENTRAINMENT

OFA 10% - JET VELOCITY INADEQUATE

BOTH 1/3 + 2/3 OPEN

12' ABOVE PORTS

1/4 OF FURNACE DEPTH

OFA 10% - CO DOUBLED IN 117ppm

10% CFD MODEL - 1/2" VEL. HEAD

- PENETRATION

COOLING AIR CURVES FROM BPI