

State Load Despatch Center, Airoli (MSETCL) Statement I
Daily system Report for 15/Aug/2016 MONDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSPGCL	Daily	Monthly	E) InterState Exchanges	Daily	Monthly
1) Thermal	70.986	1003.807	1) Gujrat	8.602	54.815
2) Hydro	7.154	202.372	2) Madhya Pradesh	12.096	171.379
3) Gas	6.800	130.341	3) Chattisgarh	5.520	102.250
Total MSPGCL	84.940	1336.520	4) Maharashtra Net	50.972	904.322
B) 1) APML	24.504	456.171	5) Goa (Amona)	-0.308	-10.479
2) JSWEL	20.395	305.641	6) TAPS 1&2 Injection	7.616	112.863
3) VIPL	10.597	135.139	7) RGPPL Injection	11.585	175.869
4) RPL(AMT)	0.000	0.000	8) Pench (MS)	0.049	3.829
5) WPCL	3.614	66.747	9) Pench (Excess)	-0.049	-3.829
6) PGPL	1.683	14.807	Total	96.034	1507.190
7) Other IPP	2.185	33.631	a) Mumbai Schedule	15.788	266.555
C) 1) TPCL Thermal	12.683	197.879	b) Mumbai Drawl	19.240	344.843
2) TPCL Hydro	3.354	86.748	c) MSEDCL Bilateral *	23.217	404.329
3) TPCL Gas	3.841	54.872	Include PX	-2.124	-27.231
4) R-INFRA Thermal	9.654	149.501	d) Mumbai Bilateral *	15.788	266.555
D) STATE			Include PX	-0.018	30.109
1) Thermal	154.618	2348.516	Include Standby	0.000	0.000
(A1+C1+C4+(B1-B6))			H) ENERGY CATERED (MUs)		
2) Hydro	10.508	289.120	1) MSEDCL	271.108	4218.903
3) Gas	12.324	200.020	2) Mumbai Discoms	48.777	833.843
4) Wind	45.518	695.778	TOTAL STATE	319.885	5052.746
6) SOLAR	0.878	12.122			
TOTAL STATE	223.846	3545.556			

* Displayed for information, not added in total.

DETAILS OF MAHARASHTRA STATE PEAK DEMAND(MW) Statement II

PARTICULARS	A. Morning Peak at 9 Hrs	B. Day Peak at 13 Hrs	C. Evening Peak at 21 Hrs	D. Night Minimum at 24 Hrs
MSPGCL Thermal	2918	2884	3046	3043
MSPGCL Hydro	172	113	487	185
MSPGCL Gas	302	276	290	282
MSPGCL Total Generation	3392	3273	3823	3510
Central Sector Receipt	4961	3747	4601	3919
WIND	1965	2047	1549	1742
CPP / IPP Thermal	2648	2386	2687	2438
CPP / IPP Gas	27	243	0	0
SOLAR	57	85	0	0
Exchange with Mumbai	-780	-913	-859	-963
MSEDCL DEMAND MET	12270	10868	11801	10646
Load Shedding	0	0	0	0
MSEDCL DEMAND	12270	10868	11801	10646
TPCL GENERATION	812	877	1027	783
R-INFRA GENERATION	403	403	403	402
MUMBAI DEMAND	1995	2193	2289	2148
STATE DEMAND MET	14265	13061	14090	12794
STATE DEMAND	14265	13061	14090	12794
Frequency (Hz)	50.10	50.02	49.98	49.99

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.2 Hz
50.18 Hz at 08:13 Hrs	49.85 Hz at 05:11 Hrs	50	0 % of Time(min)

Note : The report is based on Operational Data and is for statistical purpose only.

Shift Engineer

Shift Incharge

Daily and Progressive Generation,Maximum,Minimum for 15/Aug/2016

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Koradi				
Unit 5	0.00	0.00	0	0
Unit 6	0.00	0.00	0	0
Unit 7	0.00	0.00	0	0
Unit 8	11.05	114.69	503	421
Total	11.05	114.69		
Bhusawal				
Unit 2	0.00	0.00	0	0
Unit 3	0.00	0.00	0	0
Unit 4	0.00	10.56	0	0
Unit 5	0.00	0.00	0	0
Total	0.00	10.56		
Parli				
Unit 4	0.00	0.00	0	0
Unit 5	0.00	0.00	0	0
Unit 6	0.00	0.00	0	0
Unit 7	0.00	0.00	0	0
Total	0.00	0.00		
Chandrapur				
Unit 3	0.00	26.14	0	0
Unit 4	3.91	50.14	170	157
Unit 5	8.81	120.19	380	360
Unit 6	9.00	107.61	435	320
Unit 7	8.83	125.59	415	351
Unit 8	6.69	60.66	380	190
Total	37.24	490.33		
Paras				
Unit 3	0.00	33.73	0	0
Unit 4	4.92	72.72	250	187
Total	4.92	106.45		
Khaparkheda				
Unit 1	0.00	0.00	0	0
Unit 2	0.00	0.00	0	0
Unit 3	0.00	0.00	0	0
Unit 4	0.00	0.00	0	0
Unit 5	9.82	148.78	480	365
Total	9.82	148.78		
Nasik				
Unit 3	4.02	58.24	170	160
Unit 4	3.94	47.57	168	159
Unit 5	0.00	10.04	0	0
Total	7.95	115.85		
Uran				
All Units	6.80	130.34	302	276
Total	6.80	130.34		
PGPL				
Unit 1	1.06	9.99	192	0

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Unit 2	0.62	4.82	86	0
Total	1.68	14.81		
PENCH (MS)				
Pench (MS)	0.05	3.83	20	0
Total	0.05	3.83		
Koyna				
Stage 1-2	2.59	57.26	450	40
Stage 4	0.36	49.31	307	0
Stage 3	1.04	36.26	180	0
Total	3.99	142.83		
Hydro				
KDPH	0.00	5.89	0	0
VTRNA	1.00	14.26	58	0
TILLARI	0.36	4.08	60	0
BHTGR/VEER	0.00	0.00	0	0
BHIRA T.R.	0.16	6.96	71	0
RNGR+BHTSA	0.09	4.25	4	3
BHANDARDRA	0.34	7.28	15	14
ELDARY	0.00	0.00	0	0
SMLHY_PTN	0.39	5.47	25	13
GHATGHAR	0.83	11.35	201	0
Total	3.16	59.54		
Wind				
Total	45.52	695.78	0	0
Total	45.52	695.78		
CPP				
APML(Mus)	24.50	456.17	0	0
JSWEL(Mus)	20.40	305.64	0	0
VIPL(Mus)	10.60	135.14	0	0
RPLAMT(Mus)	0.00	0.00	0	0
WPCL(Mus)	3.61	66.75	0	0
Other(Mus)	2.18	33.63	0	0
Total	61.30	997.33		
SOLAR				
Total	0.88	12.12	0	0
Total	0.88	12.12		
Tata				
Trombay 5	7.81	122.83	446	310
Trombay 6	0.00	0.00	0	0
Trombay 7A	2.37	33.67	115	58
Trombay 7B	1.47	21.20	67	46
Trombay 8	4.88	75.05	243	197
TATA Hydro	3.35	86.75	334	15
Total	19.88	339.50		
R-INFRA				
1-2	9.65	149.50	403	401
Total	9.65	149.50		

* Infirm Power		
Particulars	Daily (Mus)	Monthly
Chandrapur 9	0.00	17.16
Koradi 9	0.00	0.00
Koradi 10	0.00	0.00
Parli 8	0.00	0.00

Summary		
Particulars	Daily (Mus)	Monthly (Mus)
MSPGCL Thermal	70.99	1003.81
MSPGCL Thml+Gas	77.79	1134.15
MSPGCL Hydro	7.15	202.37

Summary		
Particulars	Daily (Mus)	Monthly (Mus)
MSPGCL Total	84.94	1336.52
Koyna 1,2 & 4 Total	2.95	106.57
State Total	223.85	3545.56

State Load Despatch Center,Airoli (MSETCL)

Annexure-2

Hourly Load Data As on 15/Aug/2016

TIME SR. NO.	MSPGCL GEN.			TOTAL	WIND	CPP / IPP		SOLAR	CS SHARE	CS RECPT	Mum. NET EXCH.	MSEDCL DEM. MET	LOAD SHEDDI NG	MSEDCL DEM. WITH LS	MUMBAI DEMAND	STATE DEMAND	FREQ. (Hz)
	THM	HY	GAS			THM	GAS										
1	3026	141	280	3447	1640	3047	0	0	4568	4389	-890	11633	0	11633	1979	13612	49.97
2	2905	131	290	3326	1642	2817	0	0	4531	4437	-804	11418	0	11418	1838	13256	50.01
3	2917	135	280	3332	1904	2497	0	0	4450	4410	-716	11427	0	11427	1742	13169	50.01
4	2925	130	281	3336	1901	2456	0	0	3895	4412	-663	11442	0	11442	1687	13129	49.95
5	2918	134	292	3344	1866	2554	0	0	3816	4423	-659	11528	0	11528	1679	13207	49.94
6	3212	409	282	3903	2008	2872	0	0	4266	4626	-683	12726	0	12726	1756	14482	49.97
7	3151	394	291	3836	1812	3052	0	2	4684	4781	-584	12899	0	12899	1842	14741	49.99
8	3217	133	281	3631	1942	3023	9	20	4744	4691	-572	12744	0	12744	1907	14651	50.04
9	2918	172	302	3392	1965	2648	27	57	4587	4961	-780	12270	0	12270	1995	14265	50.10
10	2937	201	277	3415	2046	2432	28	84	4326	4219	-907	11317	0	11317	2104	13421	50.01
11	2897	238	283	3418	2145	2416	82	129	3694	4186	-895	11481	0	11481	2150	13631	49.96
12	2846	222	278	3346	2105	2414	149	147	3158	3899	-859	11201	0	11201	2174	13375	49.98
13	2884	113	276	3273	2047	2386	243	85	3152	3747	-913	10868	0	10868	2193	13061	50.02
14	2816	128	288	3232	2138	2368	272	81	3134	3537	-873	10755	0	10755	2125	12880	50.05
15	2849	197	276	3322	2163	2365	277	75	2822	3087	-837	10452	0	10452	2092	12544	50.00
16	2866	363	279	3508	2151	2390	205	80	2652	3174	-748	10760	0	10760	2071	12831	50.00
17	2840	436	276	3552	2013	2322	133	75	2619	2841	-762	10174	0	10174	2058	12232	50.02
18	2842	174	283	3299	2016	2305	131	39	2482	2694	-824	9660	0	9660	2072	11732	50.04
19	2851	289	281	3421	1849	2321	122	4	2681	3040	-814	9943	0	9943	2107	12050	50.02
20	2989	1173	283	4445	1576	2592	5	0	3504	3827	-776	11669	0	11669	2205	13874	49.95
21	3046	487	290	3823	1549	2687	0	0	4191	4601	-859	11801	0	11801	2289	14090	49.98
22	3041	823	281	4145	1605	2451	0	0	3535	3909	-845	11265	0	11265	2281	13546	50.02
23	3050	346	288	3684	1693	2438	0	0	3794	4224	-1014	11025	0	11025	2278	13303	50.01
24	3043	185	282	3510	1742	2438	0	0	3754	3919	-963	10646	0	10646	2148	12794	49.99
MUs	70.99	7.15	6.80	84.94	45.52	61.29	1.68	0.88	89.04	96.03	-19.24	271.11	0.00	271.11	48.77	319.88	50.00

NOTE : ALL VALUES IN MW

Mumbai Net Exch is shown with reference to MSETCL system and (-) sign indicates MSETCL periphery to Mumbai system.

State Load Despatch Center,Airoli (MSETCL) Statement-VI

Details of Generating Unit Outages/Trippings for 15/Aug/2016

Position as on 6.30 Hrs of 16/Aug/2016

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
PLANNED OUTAGE								
TPC-G	Trombay 6	500	15/07/2015	17.08		Continued.	Economic shutdown,(AOH for 06.03.2016 To 04.04.2016) Unit Test synch.07.04.2016 (12.03 To 12.30hrs)After overhaul	
MSPGCL	Koyana Unit 10	80	29/12/2015	08:00		Continued.	Annual Overhaul	
MSPGCL	Khaparkhedha Unit 1	210	25/06/2016	23.45		Continued.	Zero Schedule by MSEDCL from 00.00Hrs Dt.19-7-16 and A.O.H from 25/06/2016 to 18/07/2016	
MSPGCL	Khaparkhedha Unit 3	210	05/07/2016	23.52		Continued.	Zero Shedule By MSEDCL, converted for AOH from 00 Hrs Dt.25-7-16	
FORCED OUTAGE								
RGPL	Dabhol 1B	230	28/05/2013	22:02		Continued.	Gas Shortage.	
RGPL	Dabhol 1X	290	27/06/2013	21.46		Continued.	Gas Shortage	
RGPL	Dabhol 1A	230	27/06/2013	21.47		Continued.	Gas Shortage	
IPP	Dhariwal	300	28/05/2014	02.27		Continued.	No PPA.	
MSPGCL	Koradi Unit 6	210	20/03/2015	01.02		Continued.	Economic shutdown	
MSPGCL	Parli Unit 6	250	25/06/2015	15.03		Continued.	Water Shortage	
MSPGCL	Parli Unit 4	210	05/07/2015	18.45		Continued.	Water Shortage	
MSPGCL	Parli Unit 5	210	06/07/2015	14.55		Continued.	Water Shortage.	
MSPGCL	Parli Unit 7	250	08/07/2015	12.08		Continued.	Water Shortage	
CPP	WPCL U-1	135	16/02/2016	17.09		Continued.	No PPA.	
IPP	WPCL U-2	135	29/02/2016	21.46		Continued.	Change over against Unit III	
IPP	RPL(AMT) U-5	270	24/05/2016	00.05		Continued.	Zero Schedule By MSEDCL.	
MSPGCL	Uran Unit 7	108	24/05/2016	17.42		Continued.	Generation Bearing Vibration High.	
MSPGCL	Koradi Unit 9	660	04/06/2016	14.45		Continued.	No concent to operate	
MSPGCL	Bhusawal Unit 2	210	14/06/2016	19.35		Continued.	Boiler Tube Leakage(Converted to Zero Shedule By MSEDCL. from 00.00Hrs dt.19-6-16)	
IPP	RPL(AMT) U-2	270	18/06/2016	06.54		Continued.	Zero Shedule By MSEDCL.	
IPP	RPL(AMT) U-3	270	29/06/2016	03.01		Continued.	Zero Shedule By MSEDCL.	
IPP	RPL(AMT) U-4	270	30/06/2016	10.11		Continued.	Zero Schedule By MSEDCL.	
MSPGCL	Koradi Unit 5	200	01/07/2016	02.23		Continued.	Zero Shedule By MSEDCL.	
MSPGCL	Koradi Unit 7	210	01/07/2016	04.43		Continued.	Zero Shedule By MSEDCL.	
IPP	RPL(AMT) U-1	270	01/07/2016	18.40		Continued.	Zero Shedule By MSEDCL.	
MSPGCL	Bhusawal Unit 5	500	01/07/2016	23.59		Continued.	Zero Shedule By MSEDCL.	
MSPGCL	Khaparkhedha Unit 2	210	05/07/2016	23.46		Continued.	Zero Shedule By MSEDCL.	
MSPGCL	Khaparkhedha Unit 4	210	08/07/2016	03.07		Continued.	Zero Shedule By MSEDCL.	
MSPGCL	Bhusawal Unit 3	210	08/07/2016	23.57		Continued.	ID Fan Problem (Converted	

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 15/Aug/2016

Position as on 6.30 Hrs of 16/Aug/2016

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
IPP	Adani U-4	660	13/07/2016	02.22		Continued.	to Zero schedule by MSEDCL from 11-07-2016) Zero Shedule By MSEDCL,Shedule Given On 21/08/2016	
RGPP	Dabhol 2B	230	24/07/2016	17.13	16/08/2016	13.06	Change Over	
MSPGCL	Nasik Unit 5	210	03/08/2016	17.30		Continued.	Zero shedule	
IPP	Adani U-1	660	05/08/2016	11.44		Continued.	Zero Schedule from MSEDCL	
IPP	Adani U-5	660	06/08/2016	23.54		Continued.	Zero schedule given by MSDCL.	
MSPGCL	Paras Unit 3	250	08/08/2016	00.01		Continued.	Zero schedule given by MSDCL.	
MSPGCL	Chandrapur Unit 3	210	09/08/2016	00.08	16/08/2016	07.55	Zero Schedue	
MSPGCL	Chandrapur Unit 9	500	11/08/2016	22.11		Continued.	Oil Shortage.	
MSPGCL	Uran Unit 8	108	14/08/2016	07.56		Continued.	Maintenance work	
MSPGCL	Uran Unit B0	120	14/08/2016	07.56		Continued.	Maintenance work	
MSPGCL	Bhusawal Unit 4	500	14/08/2016	21.28		Continued.	Zero schedule given by MSEDCL	
CPP	WPCL U-4	135	15/08/2016	16.11	16/08/2016	15.50	ID Fan Problem	
RGPP	Dabhol 3A	230	16/08/2016	17.24		Continued.	Change Over	
RGPP	Dabhol 3B	230	16/08/2016	17.56	16/08/2016	21.56	Temperature problem	
RGPP	Dabhol 3X	290	16/08/2016	17.56	16/08/2016	23.06	Temperature problem	
MSPGCL	Koradi Unit-8	660	16/08/2016	18.32		Continued.	ID Fan Problem	

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 15/Aug/2016

Statement-VII

Position as on 6.30 Hrs of 16/Aug/2016

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
500 KV LINE Outages/Trippings							
HVDC Pole-I	IntraState	16/08/2016	21.07	16/08/2016	21.56	PO	To attend spark observed on DC Filter Bank
400 KV LINE Outages/Trippings							
Chandrapur Bhadravati II	InterState	03/08/2016	01.59	16/08/2016	16.02	HT	Over Voltage
Kolhapur Solapur(PG) I	InterState	14/08/2016	00.42		Continued.	HT	Over Voltage
Dhule Khandwa I	InterState	15/08/2016	02.39	15/08/2016	07.08	HT	Over Voltage
Kolhapur Solapur (PG) II	InterState	15/08/2016	16.21	15/08/2016	19.05	T	Over Voltage
Kolhapur Solapur (PG) II	InterState	15/08/2016	23.57	16/08/2016	06.13	T	Over Voltage
Dhule Khandwa II	InterState	16/08/2016	22.21		Continued.	HT	Over Voltage
Bhusawal-Aurangabad	IntraState	27/07/2016	13.09		Continued.	HT	Over Voltage
Ektuni-Bableshwar ckt II	IntraState	01/08/2016	09.53		Continued.	HT	To control Padgha-BBLSR L/L
Padghe - Kharghar	IntraState	07/08/2016	17.07		Continued.	PO	Shifted on TBC at kharghar end
karad -kolhapur-I	IntraState	09/08/2016	14.48		Continued.	T	Over Voltage,Opportunity Outage from DT 16.08.2016.
Karad - Jaigad - II	IntraState	13/08/2016	13.02		Continued.	HT	Over Voltage
Lonikand I - Koyna stage-IV	IntraState	14/08/2016	22.03	16/08/2016	07.13	HT	Over Voltage
N.Koyna-Karad -Ckt II	IntraState	15/08/2016	16.49		Continued.	HT	Over Voltage
karad -kolhapur-II	IntraState	15/08/2016	17.04	16/08/2016	07.26	T	Over Voltage
Aurangabad - Aurangabad(PG) I	IntraState	15/08/2016	18.00	16/08/2016	07.16	T	Over Voltage
Padghe - Nagothane - II	IntraState	16/08/2016	12.14	16/08/2016	16.11	EO	To attend Hot Spot
220 KV LINE Outages/Trippings							
Nasik Navsari II	InterState	16/08/2016	08.30	16/08/2016	15.18	PO	Isolator problem
Chandrapur GCR - Warora - I	IntraState	05/04/2015	09.13		Continued.	PO	Bunching of conductor Loc no 86 Disconnecting of jumer at Loc no 86 & 107 and de-energising the line bet.86 to 107.
Chandrapur GCR - Wani	IntraState	05/04/2015	09.15		Continued.	PO	Bunching of conductor Loc no 86 Disconnecting of jumer at Loc no 86 & 107 and de-energising the line bet.86 to 107.
GIS Bhandup - Borivali	IntraState	11/01/2016	07.42		Continued.	PO	Tower Erection Work.
Aurangabad (Waluj)-Bhenda	IntraState	22/06/2016	23.02		Continued.	HT	Hand Tripped.
Kalwa-Salsette-IV	IntraState	28/06/2016	18.17		Continued.	T	Distance Protection
Bableshwar- Alephata	IntraState	24/07/2016	07.57		Continued.	HT	Load Diversion.
Dhule-Chalisagaon	IntraState	15/08/2016	12.57	15/08/2016	14.35	T	Distance Protection
Dhule - Dondaicha Ckt	IntraState	15/08/2016	12.57	15/08/2016	13.21	T	Distance Protection & Autoreclosed B Ph.
Dhule - Malegaon	IntraState	15/08/2016	15.02	15/08/2016	15.28	EO	Tree Cutting Work.
Shivajinagar - Malegaon	IntraState	15/08/2016	15.36	16/08/2016	18.41	T	Distance Protection
Khaparkheda-Kanhan	IntraState	16/08/2016	05.24	16/08/2016	16.14	T	Wave Trap Jumper Disconnected
Ghatghar - Bapgaon	IntraState	16/08/2016	07.10	16/08/2016	16.20	T	Distance Protection
Parli 3 (Oldgcr)-Harangul Ckt 2	IntraState	16/08/2016	11.20	16/08/2016	15.32	EO	To attend Hot Spot
Pophali - Pedambe II	IntraState	16/08/2016	13.10	16/08/2016	17.40	PO	Line Maintenance work
220 KV ICT Outages/Trippings							
220/100 Kv 200 MVA ICT III @Borivali	IntraState	21/09/2014	09.16		Continued.	T	Failed on internal Fault(Now repaired and ready for commissioning)
220/100 Kv 200 Mva ICT III @Kalwa	IntraState	16/08/2016	05.56	16/08/2016	08.23	EO	To attend Hot Spot
220/132-110kv 100mva Imp Ptr 2 @Wathar	IntraState	16/08/2016	09.30	16/08/2016	17.45	PO	To attend Fire Detector Alarm

HT : Hand Tripping, MT : Multiple Tripping, T : Tripping, PO : Planned Outage, EO : Emergency Outage, OO : Opportunity Outage

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 15/Aug/2016

Statement-VII

Position as on 6.30 Hrs of 16/Aug/2016

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
220/33 kV 100MVA @ Shivaji Nagar	IntraState	16/08/2016	15.52	16/08/2016	20.55	PO	Repl.of LV Jumper
132 KV LINE Outages/Trippings							
Kanhan-Mouda	IntraState	15/08/2016	10.01	15/08/2016	13.54	T	Distance Protection
Kaulewada-Gondia-li	IntraState	16/08/2016	08.15	16/08/2016	08.30	T	Distance Protection
Phursungi(220kv)-Kothrud	IntraState	16/08/2016	09.46	16/08/2016	09.51	T	Distance Protection
132KV NIwali - Vikassugar	IntraState	16/08/2016	13.05	16/08/2016	14.58	T	Distance Protection
Mukhed - Ind Bharat	IntraState	16/08/2016	19.13	16/08/2016	19.53	T	Distance Protection
100 KV LINE Outages/Trippings							
Vasai-li - Vasai 2 Line	IntraState	13/08/2016	08.53		Continued.	HT	ICT Problem.

HT : Hand Tripping, MT : Multiple Tripping, T : Tripping, PO : Planned Outage, EO : Emergency Outage, OO : Opportunity Outage