

State Load Despatch Center, Airoli (MSETCL) Statement I
Daily system Report for 03/Jul/2015 FRIDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSPGCL	Daily	Monthly	E) InterState Exchanges	Daily	Monthly
1) Thermal	100.237	301.919	1) Gujrat	2.696	13.201
2) Hydro	7.550	25.451	2) Madhya Pradesh	12.991	40.524
3) Gas	6.464	19.425	3) Chattisgarh	5.330	17.480
Total MSPGCL	114.251	346.795	4) Maharashtra Net	87.564	261.700
B) 1) APML	57.880	172.930	5) Goa	-6.879	-20.448
2) JSWEL	19.337	56.489	6) TAPS 1&2 Injection	2.890	8.577
3) VIPL	12.598	36.147	7) RGPPL Injection	0.000	0.000
4) RPL(AMT)	14.720	47.870	8) Pench (MS)	0.236	0.462
5) WPCL	4.058	11.771	9) Pench (Excess)	-0.236	-0.334
6) Other IPP	4.488	11.984	Total	104.356	320.700
C) 1) TPCL Thermal	16.400	48.337	a) Mumbai Schedule	28.718	81.276
2) TPCL Hydro	4.115	13.719	b) Mumbai Drawl	28.924	84.490
3) TPCL Gas	2.535	8.123	c) MSEDCL Bilateral *	26.756	85.293
4) R-INFRA Thermal	12.155	36.385	Include PX	2.056	8.058
D) STATE			d) Mumbai Bilateral *	28.635	81.193
1) Thermal	241.873	723.832	Include PX	2.743	7.635
(A1+C1+C4+(B1-B6))			Include Standby	0.083	0.083
2) Hydro	11.665	39.170	H) ENERGY CATERED (MUs)		
3) Gas	8.999	27.548	1) MSEDCL	339.418	1015.023
4) Wind	35.423	91.183	2) Mumbai Discoms	64.126	191.050
6) SOLAR	1.231	3.644	TOTAL STATE	403.544	1206.073
TOTAL STATE	299.191	885.377			

* Displayed for information, not added in total.

DETAILS OF MAHARASHTRA STATE PEAK DEMAND(MW) Statement II

PARTICULARS	A. Morning Peak at 11 Hrs	B. Day Peak at 15 Hrs	C. Evening Peak at 21 Hrs	D. Night Minimum at 4 Hrs
MSPGCL Thermal	4466	4022	3968	4290
MSPGCL Hydro	264	448	218	55
MSPGCL Gas	263	262	267	277
MSPGCL Total Generation	4993	4732	4453	4622
Central Sector Receipt	5067	5071	4217	3789
WIND	1313	1576	1680	1419
CPP / IPP	4838	4729	4788	4740
SOLAR	150	147	0	0
Exchange with Mumbai	-1424	-1412	-1219	-869
MSEDCL DEMAND MET	14937	14843	13919	13701
Load Shedding	45	32	36	40
MSEDCL DEMAND	14982	14875	13955	13741
TPCL GENERATION	1229	1216	1056	620
R-INFRA GENERATION	514	515	515	508
MUMBAI DEMAND	3167	3143	2790	1997
STATE DEMAND MET	18104	17986	16709	15698
STATE DEMAND	18149	18018	16745	15738
Frequency (Hz)	49.98	49.92	49.95	49.97

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.2 Hz
50.16 Hz at 09:00 Hrs	49.78 Hz at 15.40 Hrs	49.97	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 03/Jul/2015

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Koradi				
Unit 5	0.00	0.31	0	0
Unit 6	0.00	0.00	0	0
Unit 7	0.00	3.27	0	0
Total	0.00	3.59		
Bhusawal				
Unit 2	0.00	0.00	0	0
Unit 3	4.12	12.28	180	165
Unit 4	11.06	24.01	505	380
Unit 5	4.53	23.36	440	0
Total	19.71	59.65		
Parli				
Unit 3	0.00	0.00	0	0
Unit 4	0.00	0.00	0	0
Unit 5	3.62	10.76	158	146
Unit 6	0.00	0.00	0	0
Unit 7	5.12	14.83	238	173
Total	8.73	25.59		
Chandrapur				
Unit 1	0.00	0.00	0	0
Unit 2	3.43	10.26	151	133
Unit 3	4.29	12.55	191	145
Unit 4	4.25	12.25	185	160
Unit 5	9.44	27.31	415	370
Unit 6	0.00	0.00	0	0
Unit 7	7.78	24.20	360	270
Total	29.19	86.57		
Paras				
Unit 3	5.20	16.71	241	188
Unit 4	5.32	15.99	244	200
Total	10.53	32.70		
Khaparkheda				
Unit 1	3.99	11.70	190	155
Unit 2	4.06	11.46	180	155
Unit 3	3.96	11.70	169	162
Unit 4	0.00	0.00	0	0
Unit 5	10.88	31.31	500	390
Total	22.90	66.17		
Nasik				
Unit 3	4.66	14.02	200	185
Unit 4	4.52	13.64	200	175
Unit 5	0.00	0.00	0	0
Total	9.18	27.66		
Uran				
All Units	6.46	19.42	279	262
Total	6.46	19.42		
PENCH (MS)				

Generating unit	Generation			
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)
Pench (MS)	0.24	0.46	47	0
Total	0.24	0.46		
Koyna				
Stage 1-2	3.88	11.32	415	40
Stage 4	2.12	7.52	280	0
Stage 3	0.91	4.01	80	0
Total	6.91	22.86		
Hydro				
KDPH	0.00	0.00	0	0
VTRNA	0.00	0.00	0	0
TILLARI	0.00	0.00	0	0
BHTGR/VEER	0.00	0.00	0	0
BHIRA T.R.	0.14	0.98	40	0
RNGR+BHTSA	0.00	0.25	0	0
BHANDARDRA	0.00	0.00	0	0
ELDARY	0.00	0.00	0	0
SMLHY_PTN	0.06	0.23	9	0
GHATGHAR	0.44	1.13	125	0
Total	0.64	2.59		
Wind				
Total	35.42	91.18	0	0
Total	35.42	91.18		
CPP				
APML(Mus)	57.88	172.93	0	0
JSWEL(Mus)	19.34	56.49	0	0
VIPL(Mus)	12.60	36.15	0	0
RPLAMT(Mus)	14.72	47.87	0	0
WPCL(Mus)	4.06	11.77	0	0
Other(Mus)	4.49	11.98	0	0
Total	113.08	337.19		
SOLAR				
Total	1.23	3.64	0	0
Total	1.23	3.64		
Tata				
Trombay 5	10.68	31.39	485	313
Trombay 6	0.00	0.00	0	0
Trombay 7A	1.42	4.60	104	53
Trombay 7B	1.12	3.52	62	43
Trombay 8	5.72	16.95	250	199
TATA Hydro	4.12	13.72	429	0
Total	23.05	70.18		
R-INFRA				
1-2	12.16	36.38	517	405
Total	12.16	36.38		

Summary		
Particulars	Daily (Mus)	Monthly (Mus)
MSPGCL Thermal	100.24	301.92
MSPGCL Thml+Gas	106.70	321.34

Summary		
Particulars	Daily (Mus)	Monthly (Mus)
MSPGCL Hydro	7.55	25.45
MSPGCL Total	114.25	346.80

Summary		
Particulars	Daily (Mus)	Monthly (Mus)
Koyna 1,2 & 4 Total	6.00	18.84
State Total	299.19	885.38

State Load Despatch Center,Airoli (MSETCL)

Annexure-2

Hourly Load Data As on 03/Jul/2015

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													
1	4423	65	278	4766	1293	4768	0	4015	4100	-921	14006	53	14059	2372	16431	49.94
2	4412	45	278	4735	1470	4659	0	3926	3914	-872	13906	40	13946	2217	16163	49.98
3	4366	40	276	4682	1493	4800	0	3883	3800	-911	13864	40	13904	2073	15977	49.98
4	4290	55	277	4622	1419	4740	0	3893	3789	-869	13701	40	13741	1997	15738	49.97
5	4175	150	279	4604	1387	4760	0	3890	4061	-939	13873	40	13913	1965	15878	49.95
6	4214	494	279	4987	1325	4543	0	3919	4209	-987	14077	44	14121	2041	16162	50.01
7	4473	695	268	5436	1268	4772	4	4133	4576	-860	15196	44	15240	2132	17372	50.01
8	4464	410	269	5143	1305	4700	35	4416	4823	-938	15068	44	15112	2289	17401	49.99
9	4497	380	268	5145	1445	4746	73	4768	4774	-1197	14986	47	15033	2575	17608	50.02
10	4520	200	264	4984	1481	4794	100	4921	5032	-1297	15094	47	15141	2912	18053	49.99
11	4466	264	263	4993	1313	4838	150	4976	5067	-1424	14937	45	14982	3167	18149	49.98
12	4100	655	264	5019	1318	4730	151	5132	4847	-1421	14644	43	14687	3192	17879	49.96
13	4075	675	262	5012	1301	4759	177	4990	4882	-1467	14664	43	14707	3184	17891	49.98
14	4053	590	266	4909	1395	4734	157	5056	4648	-1363	14480	35	14515	3073	17588	49.96
15	4022	448	262	4732	1576	4729	147	4931	5071	-1412	14843	32	14875	3143	18018	49.92
16	4022	375	268	4665	1666	4747	115	4790	4644	-1407	14430	32	14462	3147	17609	49.93
17	3991	765	266	5022	1725	4726	79	4403	4197	-1451	14298	32	14330	3137	17467	49.98
18	4050	245	267	4562	1757	4834	38	3993	3058	-1573	12676	32	12708	3039	15747	50.01
19	3784	54	266	4104	1709	4437	5	3801	3498	-1467	12286	32	12318	2889	15207	50.00
20	3747	333	267	4347	1673	4434	0	4073	4375	-1279	13550	36	13586	2842	16428	49.91
21	3968	218	267	4453	1680	4788	0	4373	4217	-1219	13919	36	13955	2790	16745	49.95
22	4042	79	268	4389	1412	4738	0	4346	4263	-1203	13599	36	13635	2689	16324	49.96
23	4057	45	270	4372	1510	4721	0	4192	4059	-1223	13439	36	13475	2656	16131	49.98
24	4026	270	272	4568	1502	4584	0	4172	4452	-1224	13882	36	13918	2608	16526	49.98
MUs	100.24	7.55	6.46	114.25	35.42	113.08	1.23	104.99	104.36	-28.92	339.42	0.94	340.36	64.13	404.49	49.97

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 03/Jul/2015

Position as on 6.30 Hrs of 04/Jul/2015

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
PLANNED OUTAGE								
CENT.SECTOR	Tarapur 1	160	12/10/2014	22:39		Continued.	Refuelling work	
MSPGCL	Parli Unit 4	210	13/04/2015	11.27		Continued.	Turbine vibration high. Continued to AOH w.e.f.01.05.2015	
IPP	Adani U-1	660	01/06/2015	01.48		Continued.	Annual Overhaul	
MSPGCL	Chandrapur Unit 6	500	09/06/2015	23.58		Continued.	COH	
MSPGCL	Khaparkheda Unit 4	210	19/06/2015	23.57		Continued.	Annual Overhaul	
MSPGCL	Nasik Unit 5	210	30/06/2015	23.50		Continued.	Annual Overhaul	
FORCED OUTAGE								
RGPPL	Dabhol 1B	230	28/05/2013	22:02		Continued.	Gas Shortage.	
RGPPL	Dabhol 3A	230	06/06/2013	08.28		Continued.	Gas Shortage	
RGPPL	Dabhol 2A	230	06/06/2013	09.10		Continued.	Gas Shortage	
RGPPL	Dabhol 1X	290	27/06/2013	21.46		Continued.	Gas Shortage	
RGPPL	Dabhol 1A	230	27/06/2013	21.47		Continued.	Gas Shortage	
RGPPL	Dabhol 2X	290	15/07/2013	15.09		Continued.	Gas Shortage	
RGPPL	Dabhol 2B	230	08/08/2013	15.03		Continued.	Gas Shortage	
RGPPL	Dabhol 3X	290	29/12/2013	05.47		Continued.	Gas Shortage	
RGPPL	Dabhol 3B	230	29/12/2013	06.14		Continued.	Gas Shortage	
IPP	Dhariwal	300	28/05/2014	02.27		Continued.	No schedule	
MSPGCL	Chandrapur Unit 1	210	28/08/2014	07:15		Continued.	Economic Shutdown.	
MSPGCL	Bhusawal Unit 2	210	13/09/2014	12.43		Continued.	Economic shutdown	
MSPGCL	Koradi Unit 6	210	20/03/2015	01.02		Continued.	Economic shutdown	
MSPGCL	Chandrapur Unit-8	500	29/03/2015	18.26		Continued.	Withdrawn	
MSPGCL	Koradi Unit-8	660	30/03/2015	20.22		Continued.	BLR Tripped.	
MSPGCL	Uran Unit 6	108	01/04/2015	16.35		Continued.	Gas shortage	
IPP	RPL(AMT) U-5	270	03/04/2015	14.22		Continued.	turbine Shaft Vibration high.	
MSPGCL	Uran Unit 7	108	17/04/2015	00.07		Continued.	Gas turbine problem	
TPC-G	Trombay 6	500	05/06/2015	05.59		Continued.	Economic Shutdown.	
TPC-G	Bhira PSU	150	09/06/2015	10.53		Continued.	Stator Earth Fault	
MSPGCL	Koyna STG- IV Unit - 1	250	09/06/2015	14.22		Continued.	Excitation T/F Burst	
MSPGCL	Parli Unit 3	210	14/06/2015	12.58		Continued.	Water Shortage	
IPP	WPCL U-2	135	16/06/2015	00.00		Continued.	No Schdule	
CPP	WPCL U-1	135	16/06/2015	00.00		Continued.	No Schdule	
MSPGCL	Parli Unit 6	250	25/06/2015	15.03		Continued.	Water Shortage	
IPP	RPL(AMT) U-4	270	26/06/2015	11.53		Continued.	Turbine bearing Vabration high	
IPP	JSW (J) U1	300	29/06/2015	13.32		Continued.	Turbine bearing Vabration high	

State Load Despatch Center,Airoli (MSETCL) Statement-VI
Details of Generating Unit Outages/Trippings for 03/Jul/2015

Position as on 6.30 Hrs of 04/Jul/2015

Generating Company	Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
MSPGCL	Koradi Unit 5	200	01/07/2015	02.25	04/07/2015	14:53	ID Fan Problem	
MSPGCL	Koradi Unit 7	210	01/07/2015	23.20		Continued.	BTL.	
MSPGCL	Bhusawal Unit 5	500	03/07/2015	11.04		Continued.	Boiler Tube Leakage	
IPP	Adani U-3	660	04/07/2015	15:03		Continued.	Super heater drain leakage.	
IPP	WPCL U-3	135	04/07/2015	17:45		Continued.	Not schdule.	
MSPGCL	Koyana STG-IV Unit-2	250	04/07/2015	22.30		Continued.	Preventive Maintenance Work	

State Load Despatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 03/Jul/2015

Statement-VII

Position as on 6.30 Hrs of 04/Jul/2015

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							
Chandrapur - Padghe Hvdc Pole 2	IntraState	17/06/2015	12.52		Continued.	T	Convertor transformer diff prot optd.Charged on No Load @ 23.48 Hrs dt 4.7.15.
400 KV LINE Outages/Trippings							
Wardha (PG)-Warora II	InterState	20/05/2015	02.39		Continued.	T	Breaker Accumulator Oil Leakage
Dabhol Nagothane I	InterState	30/06/2015	16.53		Continued.	HT	Over Voltage
Kolhapur Mapusa I	InterState	02/07/2015	16.21	03/07/2015	07.02	HT	Over Voltage
Dhule Sar'Sarovar I	InterState	02/07/2015	19.02	03/07/2015	07.38	HT	Over Voltage
Parli (Pg) Wardha (Pg) I	InterState	03/07/2015	11.28	03/07/2015	17.29	PO	Insulator Replacement Work
Kolhapur Mapusa II	InterState	03/07/2015	16.45	04/07/2015	07:27	HT	Over Voltage
Dhule Sar'Sarovar I	InterState	03/07/2015	17.20	04/07/2015	07:00	HT	Over Voltage
Kolhapur Mapusa I	InterState	04/07/2015	16:44		Continued.	HT	Over Voltage
Dhule Sar'Sarovar I	InterState	04/07/2015	17.42		Continued.	HT	Over Voltage
Dhule Khandwa II	InterState	04/07/2015	20:19		Continued.	T	Distance Protection Operated Z-II.
Akola II - Taptitanda ckt-I	IntraState	20/05/2015	08.59		Continued.	HT	Ckt I and Ckt 2 new charged to control BBLSR ICT loading.
Babhaleshwar-Taptitanda ckt-II	IntraState	23/06/2015	16.53		Continued.	PO	E/W restringing work.
Akola II - RPL(Rattanindia) Ckt-II	IntraState	25/06/2015	08.22	04/07/2015	21.22	PO	Premonsoon Maint.Work.
New Koyna - Dabhol-I	IntraState	01/07/2015	10.59	03/07/2015	10.09	T	Over Voltage
karad -kolhapur-II	IntraState	02/07/2015	16.07	03/07/2015	07.09	HT	Over Voltage
Karad - Jaigad - II	IntraState	02/07/2015	16.35	03/07/2015	06.45	HT	Over Voltage
Bhusawal-Aurangabad	IntraState	02/07/2015	18.02	03/07/2015	06.35	HT	Over Voltage
Dhule- Bableswhar - I	IntraState	03/07/2015	07.15	03/07/2015	20.55	PO	OPGW work
Dhule- Bableswhar - I	IntraState	03/07/2015	12.26	03/07/2015	14.12	T	Distance Protection
karad -kolhapur-I	IntraState	03/07/2015	16.39	04/07/2015	06.33	HT	Over Voltage
Karad-Jaigad - I	IntraState	03/07/2015	17.04	04/07/2015	06:43	HT	Over Voltage
Bhusawal-Aurangabad	IntraState	03/07/2015	18.11	04/07/2015	06.21	HT	Over Voltage
Dhule- Bableswhar - I	IntraState	04/07/2015	07:25	04/07/2015	21:30	PO	A/R non auto for opgw work.
Dhule - Bableswhar - li	IntraState	04/07/2015	07:25	04/07/2015	21:30	PO	A/R non auto for opgw work.
Akola II - Akola I Ckt-I	IntraState	04/07/2015	15.49	04/07/2015	19.49	PO	Hot Spot on R Ph Protn CT,Rectification of 400KV LA Earthing Strips by APTCL.
karad -kolhapur-II	IntraState	04/07/2015	16:33		Continued.	HT	Over Voltage
Karad - Jaigad - II	IntraState	04/07/2015	16:36		Continued.	HT	Over Voltage
Bhusawal-Aurangabad	IntraState	04/07/2015	18.07		Continued.	HT	Over Voltage
400 KV ICT Outages/Trippings							
400/220/33 Kv 315 MVA ICT-I @Waluj	IntraState	26/06/2015	19.43		Continued.	T	Tripped due to Fire at LV side,Charged on No Load @ 04.25 Hrs dt 5.7.15.
400/220 Kv 500 MVA ICT-I @Kalwa	IntraState	03/07/2015	15.51	03/07/2015	17.45	PO	Attending Hot Spot
400/220/33 Kv 315 MVA ICT II @Chandrapur	IntraState	03/07/2015	17.37	03/07/2015	20.39	PO	problem attend on ict
400/220/33 Kv 315 Mva Ict 1 @Dhule	IntraState	04/07/2015	14.32		Continued.	PO	Commissioning Of Spare ICT In Place Of R-Ph Unit.
220 KV LINE Outages/Trippings							
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 deenergising 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

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 03/Jul/2015

Statement-VII

Position as on 6.30 Hrs of 04/Jul/2015

Name of Line	Inter State / Intra State	Tripped Date	Tripped Time	Sync. Date	Sync. Time	Outage Type	Reason of Outage
							86 & 107 and deenergising the line bet.86 to 107.
Shivajinagar - Satana	IntraState	01/07/2015	14.42	03/07/2015	18.42	T	Distance Protection
Bableshwar- Alephata	IntraState	02/07/2015	23:08	04/07/2015	17:21	HT	Bableshwar ict o/l.
Anandnagar - Pal	IntraState	03/07/2015	09.01	03/07/2015	10.43	PO	Replacement of Jumper
Vita - Miraj	IntraState	03/07/2015	09.35	03/07/2015	20.07	PO	Insulator Replacement Work
Parvati - Hybrid Pass	IntraState	03/07/2015	10.00	03/07/2015	16.50	HT	control urse - chinchwad line loading
Talandge-Mudshingi Ckt-I	IntraState	03/07/2015	10.13	03/07/2015	17.41	PO	Testing Work
Apta - Taloja	IntraState	03/07/2015	10.16	03/07/2015	16.08	PO	Annual Maintenance Work
Pedambe-Pophali	IntraState	03/07/2015	10.56	03/07/2015	16.00	T	Distance Protection
Apta - Tambati	IntraState	03/07/2015	11.00	03/07/2015	12.20	PO	shifted on Tbc
Miraj - Mhaishal	IntraState	03/07/2015	14.44	03/07/2015	19.58	PO	Annual Maintenance Work
Taloja li - OCIL-II	IntraState	03/07/2015	16.50	03/07/2015	19.47	T	B ph LA burst at ocil
Bableshwar- Ranjangaon	IntraState	04/07/2015	06:00	04/07/2015	17:21	HT	Bableshwar ict o/l.
Babhaleshwar-Nagar-I	IntraState	04/07/2015	10:00	04/07/2015	15:24	PO	Jumper tightnning work.
Shivajinagar - Malegaon	IntraState	04/07/2015	11.54		Continued.	T	Distance Protection
Mahad - Pedambe	IntraState	04/07/2015	11:15	04/07/2015	13:42	EO	To attend Hot Spot
Bableshwar- Alephata	IntraState	04/07/2015	23.39		Continued.	HT	ICT Over Loading @ Babaleshwar
220 KV ICT Outages/Trippings							
220/100 Kv 200 MVA ICT III @Borivali	IntraState	21/09/2014	09.16		Continued.	T	Internal Fault
220/132 Kv 200 Mva Cgl Ict 3 @Babhleshwar	IntraState	03/07/2015	15.35	03/07/2015	16.25	PO	Testing Work
220/33kv 125 Mva Transformer 5 @Aarey R/S	IntraState	04/07/2015	14:48	04/07/2015	16:02	PO	To work on 33kv bus of the transformer.

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