

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram**

1. Dr. Pramod Deo, Chairperson
2. Shri R.Krishnamoorthy, Member
3. Shri S.Jayaraman, Member
4. Shri V. S. Verma, Member

**Petition No 81/2009  
(Suo-motu)**

**In the matter of**

Maintenance of Grid Discipline – Compliance of provisions of the Indian Electricity Grid Code.

**And in the matter of**

1. Tamil Nadu Electricity Board, Chennai
2. Shri C. P. Singh, Chairman, Tamil Nadu Electricity Board, Chennai Respondents

**ORDER**

In exercise of powers conferred under Section 178 of the Electricity Act, 2003 (the Act), the Central Electricity Regulatory Commission (the Commission) has specified Indian Electricity Grid Code (the Grid Code). Paras 5.4.2(a) and 6.4.4 of the Grid Code enjoin upon the State utilities to endeavor to restrict their net drawal from the grid to their respective drawal schedule whenever the system frequency is below 49.5 Hz. Extracts of relevant paras of the Grid Code are reproduced below:

*“5.4.2 Manual Demand Disconnection*

*(a) As mentioned elsewhere, the constituents shall endeavour to restrict their net drawal from the grid to within their respective drawl schedules whenever the system frequency is below 49.5 Hz. When the frequency falls below 49.0 Hz, requisite load shedding (manual) shall be carried out in the concerned State to curtail the over-drawal.”*

*6.4 Demarcation of responsibilities*

4. *Provided that the States, through their SLDCs, shall always endeavour to restrict their net drawal from the grid to within their respective drawal schedules, whenever the system frequency is below 49.5 Hz. When the frequency falls below 49.0 Hz, requisite load shedding shall be carried out in the concerned State(s) to curtail the over-drawal.”*

2. Para 5.4.2 has been amended by the Indian Electricity Grid Code (Amendment) Regulations, 2009 dated 30.3.2009, (the amendment regulations) which have come into force with effect from 1.4.2009 whereby the figures and words “49.0 Hz.”, have been substituted by the figures and word “49.2 Hz. Similarly, para 6.4 has also been amended by the amendment regulations and after amendment para 6.4.7 corresponds to pre-amended para 6.4.4. Para 6.4.7, as amended with effect from 1.4.2009, provides as under:

*“6.4 Demarcation of responsibilities*

*7. Provided that the States, through their SLDCs, shall always endeavour to restrict their net drawal from the grid to within their respective drawal schedules, whenever the system frequency is below 49.5 Hz. When the frequency falls below 49.2 Hz, requisite load shedding shall be carried out in the concerned State(s) to curtail the over-drawal.”*

3. In keeping with the above noted provisions of the Grid Code, manual load shedding had to be carried out to curtail over-drawal when the grid frequency fell below 49.0 Hz till 31.3.2009 and thereafter when frequency fell below 49.2 Hz.

4. Chairman & Managing Director, Power Grid Corporation of India Ltd, the Central Transmission Utility who presently operates the Regional Load Despatch Centres, on observing the deteriorating grid conditions as a result of excessive over-drawal by the first respondent (to the extent of 1-4 Mu daily), by his DO No C: CMD: SEBs/160 dated 4.3.2009 urged upon the second respondent to take immediate measures for restricting drawals. The second respondent, in his DO reply dated 6.3.2009, while noting the status of declining grid frequency categorically assured the Chairman & Managing Director, Power Grid Corporation of India Ltd that the respondents would refrain from any over-drawal from the grid in future. Meanwhile, the General Manager, Southern Regional Load Despatch Centre, vide its letter No. GM/SRLDC/09/0304 dated 6.3.2009 brought to the respondents notice the excessive

over-drawal resorted to by them on 5<sup>th</sup> and 6<sup>th</sup> March 2009. Again, the Southern Regional Load Despatch Centre under its letter No. AGM/SRLDC/2008 dated 7.3.2009 addressed to Member-Secretary, Southern Regional Power Committee (the Member-Secretary), with copy to the second respondent, brought to the notice of the Member-Secretary the relevant details of frequency profile, over-drawals from the grid by different States in the region under severe low frequency conditions and the messages sent to the State Load Despatch Centres pointing to them violations of the Grid Code, during the period 25.2.2009 to 6.3.2009 in terms of para 1.5 of the Grid Code. This letter from the Southern Regional Load Despatch Centre was followed up by the Member-Secretary's letter No. SRPC/SE-II/2009 dated 9.3.2009 wherein the Member Secretary called upon the first respondent to terminate over-drawals and initiate urgent corrective measures so as to remain within frequency range specified in the Grid Code. The question of maintaining the grid frequency above 49.0 Hz was also discussed at OCC meeting held on 18.3.2009 whereat all the constituents of Southern Region are reported to have agreed to take necessary measures in that direction. The frequency profile in the region was reviewed by the Southern Regional Load Despatch Centre on 19.3.2009 when it found that the position had declined and frequency was straying below 49.0 Hz for more than 8% of the time because of over-drawal by the first respondent, among others. The position was again brought to the notice of all concerned by the Southern Regional Load Despatch Centre by its letter No. AGM/SRLDC/2009 date 20.3.2009 calling upon them to take necessary measures, in the interest of safety and security of the grid, to avoid over-drawal during low frequency operation. The Southern Regional Load Despatch Centre also brought to their notice the frequency profile for the period 16.3.2009 to 19.3.2009.

5. As noted above, the amendments made to the Grid Code vide notification dated 30.3.2009 came into force with effect from 1.4.2009. The Member-Secretary, under his letter No. SRPC/SE-II/2009/2184-89 dated 31.3.2009 brought to the notice of the constituents of

the region the revised frequency band of 50.3 Hz to 49.2 Hz and at the same time soliciting their co-operation in the direction of the safe and secure operation of the grid. Similarly, the Southern Regional Load Despatch Centre, while bringing to their notice the revised permissible frequency band and the adverse frequency profile on 1<sup>st</sup> and 2<sup>nd</sup> April 2009, by its letter No. AGM/SRLDC/2009 dated 3.4.2009 urged the constituents to take necessary measures to avoid persistent over-drawal during low frequency operation. The request was reiterated in the letter dated 6.4.2009 from the Southern Regional Load Despatch Centre where to frequency profile for 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> April was annexed. Through another letter (No. GM/SRLDC/09/0401) of the same date, the General Manager, Southern Regional Load Despatch Centre reported the matter to the Member-Secretary in terms of para 1.5 of the Grid Code annexing thereto the consolidated frequency profile for the period 1<sup>st</sup> April to 5<sup>th</sup> April 2009. The latter letter was also endorsed to the respondents. On receipt of the communication from the General Manager, Southern Regional Load Despatch Centre, the Member-Secretary by his two letters, both dated 8.4.2009 again brought to the notice of the regional constituents the frequency profile, pinpointing that the first respondent was violating the provisions of the Grid Code by indulging in over-drawals at frequency below 49.2 Hz. Chairman & Managing Director Power Grid Corporation of India Ltd, again, by his DO letter dated 8.4.2009 sought personal intervention of the second respondent for taking measures to restrict over-drawals at low frequency. Earlier, by an SOS Message No. 12624/AGM(SRLDC) dated 6.4.2009 issued at 1115 hrs, pointed out to the first respondent the by reason over-drawal by it to the extent of 300 MW to 450 Mw the frequency had been hovering around 48.75 Hz and had even reached 48.64 Hz, which posed a serious threat to the grid security. The representative of the first respondent in the State Load Despatch Centre by message No 1 dated 7.4.2009 issued at 1759 hrs, informed that over-drawal would be reduced at 1800 hrs and requested for closing of Salem ICTs. Despite the assurance, it has been pointed out by the Southern Regional Load Despatch Centre that the over-drawal was to the tune of 100 MW -250 MW.

6. It has thus been reported that despite continuous goading by Chairman & Managing Director, Power Grid Corporation of India Ltd, the Southern Regional Load Despatch Centre and the Member-Secretary as noticed above and assurances by the respondents, during March 2009 and 1.4.2009 to 9.4.2009, the first respondent had over-drawn electricity recklessly. The date-wise details of over-drawals by the first respondent from 1.4.2009 to 9.4.2009, compiled based on the Real Time SCADA values received at the Southern Regional Load Despatch Centre are given hereunder:

**STATEMENT OF OVER-DRAWL**

Ser No	Date	Over-drawl in MU	Over-drawl in MW
<b>APRIL 2009</b>			
1.	1-Apr-09	2.90	638
2.	2-Apr-09	2.16	587
3.	3-Apr-09	1.97	548
4.	4-Apr-09	1.67	449
5.	5-Apr-09	2.78	556
6.	6-Apr-09	4.64	735
7.	7-Apr-09	3.50	514
8.	8-Apr-09	2.29	543
9.	9-Apr-09	2.24	480

7. The time-block-wise details of over-drawal by the first respondent at frequency below 49.2 Hz from 1.4.2009 to 9.4.2009 also based on the Real Time SCADA values received at the Southern Regional Load Despatch Centre, are contained in the **Annexure** attached.

8. On perusal of the details *prima facie*, we are satisfied that the first respondent is guilty of contravention of and non-compliance with the provisions of the Grid Code. The first respondent on earlier occasion also was found guilty of over-drawal from the grid in contravention of the provisions of the Grid Code and punished by order dated 31.12.2008 in Petition No. 137/2008 (*suo motu*)

9. The first respondent is directed to show cause as to why it should not be held guilty of contravention of and non-compliance with the provisions of the Grid Code and penalty under Section 142 of the Act be not imposed on it for over-drawal of electricity on for each occasion in contravention of the provisions of the Grid Code. The reply may be submitted latest by 15.4.2009.

10. The second respondent, the Chairman of the first respondent, is directed to show cause, latest by 15.4.2009, as to why as the person in charge of and responsible to the first respondent for conduct of its business he should also not been deemed guilty of the offence of contravention of and non-compliance with the provisions of the Grid Code, and punished accordingly along with the first respondent.

11. The Member-Secretary and the General Manager, Southern Regional Load Despatch Centre or their representatives shall assist the Commission in the present proceedings.

12. List this petition for further directions on 16.4.2009.

Sd/-  
[V. S. VERMA]  
MEMBER

Sd/-  
[S. JAYARAMAN]  
MEMBER

Sd/-  
[R. KRISHNAMOORTHY]  
MEMBER

Sd/-  
[DR. PRAMOD DEO]  
CHAIRPERSON

New Delhi, dated 13<sup>th</sup> April 2009

## STATEMENT OF OVER-DRAWL BY TNEB

Sl.No	Date	Block	Frequency	Overdrawal (MW)
1	1-Apr-09	1	48.74	275
2	1-Apr-09	2	49.00	104
3	1-Apr-09	3	49.15	246
4	1-Apr-09	5	49.17	425
5	1-Apr-09	6	49.08	419
6	1-Apr-09	7	49.05	392
7	1-Apr-09	8	49.16	206
8	1-Apr-09	15	49.15	26
9	1-Apr-09	17	49.06	16
10	1-Apr-09	18	49.06	83
11	1-Apr-09	19	48.98	125
12	1-Apr-09	20	49.11	66
13	1-Apr-09	21	49.03	370
14	1-Apr-09	22	48.92	207
15	1-Apr-09	23	49.07	157
16	1-Apr-09	26	49.11	47
17	1-Apr-09	27	49.02	117
18	1-Apr-09	28	49.03	161
19	1-Apr-09	26	49.11	47
20	1-Apr-09	30	49.08	227
21	1-Apr-09	31	49.17	242
22	1-Apr-09	37	49.14	169
23	1-Apr-09	38	49.07	29
24	1-Apr-09	39	49.04	67
25	1-Apr-09	41	49.02	353
26	1-Apr-09	42	49.01	278
27	1-Apr-09	45	49.17	553
28	1-Apr-09	46	49.01	463
29	1-Apr-09	47	48.95	285
30	1-Apr-09	50	49.07	235
31	1-Apr-09	51	49.01	307
32	1-Apr-09	52	48.73	329
33	1-Apr-09	53	48.82	350
34	1-Apr-09	54	48.70	333
35	1-Apr-09	55	48.79	313
36	1-Apr-09	58	49.19	254
37	1-Apr-09	63	49.19	120
38	1-Apr-09	76	49.19	278
39	1-Apr-09	79	49.08	132
40	1-Apr-09	81	49.19	216
41	1-Apr-09	82	49.16	195
42	1-Apr-09	83	49.14	231
43	1-Apr-09	84	49.12	147
44	1-Apr-09	86	49.18	197
45	1-Apr-09	89	49.06	302

46	1-Apr-09	90	48.68	359
47	1-Apr-09	91	48.75	349
48	1-Apr-09	92	48.93	262
49	1-Apr-09	93	49.14	82
50	1-Apr-09	95	49.18	117
51	1-Apr-09	96	49.18	129
52	2-Apr-09	1	48.98	18
53	2-Apr-09	2	49.12	64
54	2-Apr-09	4	49.19	96
55	2-Apr-09	5	49.17	105
56	2-Apr-09	6	49.10	86
57	2-Apr-09	7	49.13	109
58	2-Apr-09	13	49.11	6
59	2-Apr-09	14	49.06	23
60	2-Apr-09	15	49.20	47
61	2-Apr-09	16	49.19	80
62	2-Apr-09	17	49.11	94
63	2-Apr-09	18	48.97	62
64	2-Apr-09	19	49.00	56
65	2-Apr-09	20	49.04	33
66	2-Apr-09	21	49.06	143
67	2-Apr-09	22	48.96	82
68	2-Apr-09	23	49.14	182
69	2-Apr-09	27	49.13	107
70	2-Apr-09	28	49.19	216
71	2-Apr-09	30	49.17	248
72	2-Apr-09	31	49.18	203
73	2-Apr-09	34	49.18	192
74	2-Apr-09	36	49.18	305
75	2-Apr-09	37	49.16	324
76	2-Apr-09	38	49.19	227
77	2-Apr-09	39	49.06	230
78	2-Apr-09	43	49.06	244
79	2-Apr-09	44	49.04	191
80	2-Apr-09	46	49.13	119
81	2-Apr-09	47	48.99	26
82	2-Apr-09	51	49.19	54
83	2-Apr-09	53	49.16	309
84	2-Apr-09	54	49.12	146
85	2-Apr-09	56	49.18	229
86	2-Apr-09	58	49.15	161
87	2-Apr-09	60	49.15	191
88	2-Apr-09	66	49.19	134
89	2-Apr-09	67	49.19	185
90	2-Apr-09	75	49.18	222
91	2-Apr-09	76	48.86	13
92	2-Apr-09	77	49.15	182
93	2-Apr-09	79	49.13	151
94	2-Apr-09	81	49.04	210
95	2-Apr-09	82	49.13	104
96	2-Apr-09	83	49.14	89



97	2-Apr-09	84	49.18	179
98	2-Apr-09	85	49.09	145
99	2-Apr-09	86	49.16	57
100	2-Apr-09	87	49.19	83
101	2-Apr-09	81	49.04	210
102	2-Apr-09	82	49.13	104
103	2-Apr-09	83	49.14	89
104	2-Apr-09	84	49.18	179
105	2-Apr-09	85	49.09	145
106	2-Apr-09	86	49.16	57
107	2-Apr-09	87	49.19	83
108	2-Apr-09	81	49.04	210
109	2-Apr-09	82	49.13	104
110	2-Apr-09	83	49.14	89
111	2-Apr-09	84	49.18	179
112	2-Apr-09	85	49.09	145
113	2-Apr-09	86	49.16	57
114	2-Apr-09	87	49.19	83
115	2-Apr-09	89	48.75	352
116	2-Apr-09	90	48.64	453
117	2-Apr-09	91	48.59	474
118	2-Apr-09	92	48.86	329
119	2-Apr-09	93	48.99	263
120	2-Apr-09	94	49.10	310
121	2-Apr-09	95	49.15	259
122	3-Apr-09	2	49.15	67
123	3-Apr-09	6	49.16	68
124	3-Apr-09	17	49.14	33
125	3-Apr-09	18	49.13	74
126	3-Apr-09	19	49.16	109
127	3-Apr-09	20	49.14	139
128	3-Apr-09	21	49.13	6
129	3-Apr-09	22	49.01	9
130	3-Apr-09	23	49.03	52
131	3-Apr-09	28	49.13	167
132	3-Apr-09	30	49.16	224
133	3-Apr-09	31	49.14	246
134	3-Apr-09	32	49.19	195
135	3-Apr-09	34	49.02	102
136	3-Apr-09	37	49.19	326
137	3-Apr-09	38	49.10	182
138	3-Apr-09	42	49.05	221
139	3-Apr-09	43	49.09	237
140	3-Apr-09	47	49.17	25
141	3-Apr-09	52	48.93	267
142	3-Apr-09	53	49.06	401
143	3-Apr-09	54	48.91	330
144	3-Apr-09	55	49.02	260
145	3-Apr-09	56	48.94	253
146	3-Apr-09	58	49.08	193
147	3-Apr-09	59	49.13	209

148	3-Apr-09	60	49.10	225
149	3-Apr-09	61	49.13	143
150	3-Apr-09	62	49.16	139
151	3-Apr-09	63	49.14	96
152	3-Apr-09	64	49.18	108
153	3-Apr-09	67	49.11	139
154	3-Apr-09	68	49.06	73
155	3-Apr-09	76	49.15	230
156	3-Apr-09	77	49.10	172
157	3-Apr-09	78	48.89	147
158	3-Apr-09	79	49.15	107
159	3-Apr-09	80	49.15	114
160	3-Apr-09	81	49.19	163
161	3-Apr-09	85	48.97	37
162	3-Apr-09	88	49.10	11
163	3-Apr-09	89	48.88	168
164	3-Apr-09	90	48.69	226
165	3-Apr-09	91	48.65	254
166	3-Apr-09	92	48.68	271
167	3-Apr-09	93	48.72	180
168	3-Apr-09	94	48.90	224
169	3-Apr-09	95	49.10	192
170	4-Apr-09	1	49.09	203
171	4-Apr-09	2	49.13	164
172	4-Apr-09	3	49.19	224
173	4-Apr-09	4	49.19	190
174	4-Apr-09	6	49.16	9
175	4-Apr-09	18	49.18	3
176	4-Apr-09	19	49.18	72
177	4-Apr-09	21	49.11	66
178	4-Apr-09	22	49.10	80
179	4-Apr-09	23	49.08	150
180	4-Apr-09	28	49.16	11
181	4-Apr-09	29	49.18	121
182	4-Apr-09	30	49.19	85
183	4-Apr-09	34	49.11	81
184	4-Apr-09	35	49.04	38
185	4-Apr-09	39	49.08	24
186	4-Apr-09	52	49.15	236
187	4-Apr-09	54	49.07	181
188	4-Apr-09	55	49.06	112
189	4-Apr-09	56	49.13	148
190	4-Apr-09	58	48.98	14
191	4-Apr-09	59	49.18	122
192	4-Apr-09	60	49.08	92
193	4-Apr-09	61	49.15	73
194	4-Apr-09	62	49.09	90
195	4-Apr-09	63	49.09	23
196	4-Apr-09	67	49.15	39
197	4-Apr-09	68	49.17	55
198	4-Apr-09	76	48.95	194

199	4-Apr-09	77	48.98	198
200	4-Apr-09	78	48.78	182
201	4-Apr-09	79	49.13	195
202	4-Apr-09	80	49.09	251
203	4-Apr-09	81	49.09	316
204	4-Apr-09	82	49.13	373
205	4-Apr-09	83	49.13	412
206	4-Apr-09	84	49.12	396
207	4-Apr-09	85	48.90	143
208	4-Apr-09	86	49.15	71
209	4-Apr-09	87	49.18	125
210	4-Apr-09	89	48.84	124
211	4-Apr-09	90	48.82	151
212	4-Apr-09	91	48.81	270
213	4-Apr-09	92	48.98	279
214	4-Apr-09	93	48.87	153
215	4-Apr-09	94	49.01	158
216	4-Apr-09	95	49.05	132
217	4-Apr-09	96	49.10	79
218	5-Apr-09	1	48.83	245
219	5-Apr-09	2	48.85	344
220	5-Apr-09	3	48.88	301
221	5-Apr-09	4	49.06	265
222	5-Apr-09	6	49.15	368
223	5-Apr-09	7	49.13	421
224	5-Apr-09	10	49.09	112
225	5-Apr-09	11	49.05	143
226	5-Apr-09	12	49.13	154
227	5-Apr-09	13	49.10	154
228	5-Apr-09	14	48.87	99
229	5-Apr-09	15	48.95	168
230	5-Apr-09	16	48.94	162
231	5-Apr-09	17	48.95	73
232	5-Apr-09	18	49.03	40
233	5-Apr-09	19	49.04	134
234	5-Apr-09	20	48.99	183
235	5-Apr-09	21	49.03	219
236	5-Apr-09	22	49.03	193
237	5-Apr-09	23	49.18	43
238	5-Apr-09	32	49.02	71
239	5-Apr-09	34	49.04	10
240	5-Apr-09	37	49.18	229
241	5-Apr-09	38	48.98	58
242	5-Apr-09	39	49.00	69
243	5-Apr-09	41	49.02	158
244	5-Apr-09	42	48.74	98
245	5-Apr-09	43	48.62	14
246	5-Apr-09	44	49.04	76
247	5-Apr-09	46	49.11	275
248	5-Apr-09	47	48.94	195
249	5-Apr-09	50	48.71	28

250	5-Apr-09	51	48.94	191
251	5-Apr-09	52	48.98	352
252	5-Apr-09	53	49.02	400
253	5-Apr-09	54	48.94	344
254	5-Apr-09	55	48.80	228
255	5-Apr-09	56	49.02	167
256	5-Apr-09	57	49.15	212
257	5-Apr-09	58	49.04	183
258	5-Apr-09	59	49.07	98
259	5-Apr-09	60	49.12	82
260	5-Apr-09	61	48.98	67
261	5-Apr-09	62	49.14	191
262	5-Apr-09	63	49.17	163
263	5-Apr-09	64	49.06	228
264	5-Apr-09	66	49.15	62
265	5-Apr-09	77	49.08	348
266	5-Apr-09	78	49.16	280
267	5-Apr-09	79	49.13	275
268	5-Apr-09	81	49.18	340
269	5-Apr-09	83	49.17	392
270	5-Apr-09	85	49.11	257
271	5-Apr-09	87	49.16	310
272	5-Apr-09	89	49.15	260
273	5-Apr-09	90	49.10	232
274	5-Apr-09	91	49.14	194
275	5-Apr-09	93	49.09	137
276	5-Apr-09	94	49.12	76
277	6-Apr-09	10	48.92	32
278	6-Apr-09	11	48.99	24
279	6-Apr-09	12	49.03	44
280	6-Apr-09	18	49.04	40
281	6-Apr-09	19	48.98	74
282	6-Apr-09	20	48.90	102
283	6-Apr-09	22	48.77	26
284	6-Apr-09	23	48.81	74
285	6-Apr-09	24	49.15	2
286	6-Apr-09	27	49.10	301
287	6-Apr-09	28	49.16	413
288	6-Apr-09	30	49.19	666
289	6-Apr-09	31	49.16	609
290	6-Apr-09	32	49.17	567
291	6-Apr-09	33	49.19	380
292	6-Apr-09	36	49.09	519
293	6-Apr-09	37	49.11	414
294	6-Apr-09	38	49.12	369
295	6-Apr-09	39	49.10	385
296	6-Apr-09	40	49.19	453
297	6-Apr-09	41	49.01	236
298	6-Apr-09	42	48.76	245
299	6-Apr-09	43	48.76	296
300	6-Apr-09	44	48.72	298

301	6-Apr-09	45	48.79	440
302	6-Apr-09	46	48.65	431
303	6-Apr-09	47	48.80	191
304	6-Apr-09	50	48.94	262
305	6-Apr-09	51	48.68	421
306	6-Apr-09	52	48.69	430
307	6-Apr-09	53	48.97	346
308	6-Apr-09	54	48.75	381
309	6-Apr-09	55	48.89	360
310	6-Apr-09	56	48.87	314
311	6-Apr-09	57	49.12	200
312	6-Apr-09	58	49.05	287
313	6-Apr-09	59	49.04	299
314	6-Apr-09	60	48.97	283
315	6-Apr-09	61	49.00	292
316	6-Apr-09	62	49.12	213
317	6-Apr-09	63	49.03	227
318	6-Apr-09	64	49.01	203
319	6-Apr-09	66	49.09	334
320	6-Apr-09	67	49.17	265
321	6-Apr-09	68	49.07	332
322	6-Apr-09	69	49.16	521
323	6-Apr-09	70	49.11	491
324	6-Apr-09	71	49.10	473
325	6-Apr-09	76	48.85	325
326	6-Apr-09	77	48.90	340
327	6-Apr-09	78	49.04	388
328	6-Apr-09	79	48.84	327
329	6-Apr-09	80	48.98	337
330	6-Apr-09	81	48.90	355
331	6-Apr-09	82	48.83	311
332	6-Apr-09	84	49.17	392
333	6-Apr-09	85	48.86	300
334	6-Apr-09	86	49.01	247
335	6-Apr-09	89	48.77	270
336	6-Apr-09	90	48.74	301
337	6-Apr-09	91	48.90	316
338	6-Apr-09	92	49.11	331
339	6-Apr-09	93	49.12	186
340	6-Apr-09	94	49.16	268
341	7-Apr-09	13	49.05	181
342	7-Apr-09	17	48.91	1
343	7-Apr-09	18	48.82	31
344	7-Apr-09	19	48.96	164
345	7-Apr-09	20	48.95	86
346	7-Apr-09	21	48.95	105
347	7-Apr-09	22	48.81	163
348	7-Apr-09	23	48.61	214
349	7-Apr-09	24	48.96	155
350	7-Apr-09	26	49.16	101
351	7-Apr-09	27	48.99	224

352	7-Apr-09	28	48.95	215
353	7-Apr-09	30	49.16	468
354	7-Apr-09	31	49.18	451
355	7-Apr-09	34	49.09	396
356	7-Apr-09	35	49.05	342
357	7-Apr-09	36	49.18	327
358	7-Apr-09	37	49.14	352
359	7-Apr-09	38	48.94	231
360	7-Apr-09	39	48.97	235
361	7-Apr-09	40	48.93	226
362	7-Apr-09	41	49.03	183
363	7-Apr-09	42	48.72	246
364	7-Apr-09	43	48.59	171
365	7-Apr-09	44	48.79	146
366	7-Apr-09	45	48.82	323
367	7-Apr-09	46	48.62	330
368	7-Apr-09	47	48.73	326
369	7-Apr-09	48	49.14	403
370	7-Apr-09	51	48.89	376
371	7-Apr-09	52	48.69	318
372	7-Apr-09	53	48.92	429
373	7-Apr-09	54	48.62	356
374	7-Apr-09	55	48.61	229
375	7-Apr-09	56	48.68	207
376	7-Apr-09	57	49.08	158
377	7-Apr-09	58	48.98	208
378	7-Apr-09	59	48.82	223
379	7-Apr-09	60	48.83	322
380	7-Apr-09	61	48.78	319
381	7-Apr-09	62	48.74	272
382	7-Apr-09	63	48.81	275
383	7-Apr-09	64	48.82	255
384	7-Apr-09	65	49.19	255
385	7-Apr-09	66	48.97	191
386	7-Apr-09	67	48.90	229
387	7-Apr-09	68	49.06	258
388	7-Apr-09	76	49.17	293
389	7-Apr-09	78	49.18	368
390	7-Apr-09	79	49.10	295
391	7-Apr-09	80	49.10	271
392	7-Apr-09	81	49.17	139
393	7-Apr-09	82	49.14	117
394	7-Apr-09	83	49.11	119
395	7-Apr-09	84	49.17	150
396	7-Apr-09	85	49.12	78
397	7-Apr-09	86	48.91	25
398	7-Apr-09	87	49.08	32
399	7-Apr-09	88	49.26	40
400	7-Apr-09	89	48.75	18
401	7-Apr-09	90	48.66	21
402	7-Apr-09	91	48.68	91

403	7-Apr-09	92	48.92	65
404	7-Apr-09	93	49.05	124
405	7-Apr-09	94	49.04	42
406	7-Apr-09	95	49.14	70
407	7-Apr-09	96	49.16	155
408	8-Apr-09	14	49.14	400
409	8-Apr-09	15	49.17	292
410	8-Apr-09	16	49.16	290
411	8-Apr-09	17	49.12	184
412	8-Apr-09	18	49.08	106
413	8-Apr-09	19	49.05	76
414	8-Apr-09	20	48.99	146
415	8-Apr-09	21	48.83	159
416	8-Apr-09	22	48.64	178
417	8-Apr-09	23	48.67	282
418	8-Apr-09	24	49.02	213
419	8-Apr-09	35	49.18	160
420	8-Apr-09	37	49.19	173
421	8-Apr-09	38	49.09	47
422	8-Apr-09	39	49.05	40
423	8-Apr-09	40	49.11	73
424	8-Apr-09	41	49.16	75
425	8-Apr-09	42	49.01	44
426	8-Apr-09	43	49.01	63
427	8-Apr-09	44	49.05	114
428	8-Apr-09	45	49.05	113
429	8-Apr-09	46	48.87	86
430	8-Apr-09	47	48.98	43
431	8-Apr-09	37	49.19	173
432	8-Apr-09	51	48.98	81
433	8-Apr-09	52	49.03	97
434	8-Apr-09	54	49.06	126
435	8-Apr-09	55	48.97	43
436	8-Apr-09	56	49.01	45
437	8-Apr-09	57	49.13	84
438	8-Apr-09	58	48.88	83
439	8-Apr-09	59	49.01	29
440	8-Apr-09	60	48.83	34
441	8-Apr-09	61	48.96	74
442	8-Apr-09	62	49.05	64
443	8-Apr-09	63	49.15	68
444	8-Apr-09	64	49.16	135
445	8-Apr-09	66	49.11	181
446	8-Apr-09	67	49.16	190
447	8-Apr-09	68	49.17	247
448	8-Apr-09	69	49.16	326
449	8-Apr-09	76	49.07	184
450	8-Apr-09	78	49.14	228
451	8-Apr-09	79	48.94	135
452	8-Apr-09	87	49.15	324
453	8-Apr-09	89	48.96	287

454	8-Apr-09	90	48.84	382
455	8-Apr-09	91	48.76	423
456	8-Apr-09	92	48.70	351
457	8-Apr-09	93	48.80	191
458	8-Apr-09	94	49.01	197
459	8-Apr-09	95	49.09	213
460	8-Apr-09	96	49.09	206
461	9-Apr-09	1	48.89	335
462	9-Apr-09	2	48.90	250
463	9-Apr-09	3	49.12	281
464	9-Apr-09	4	49.17	373
465	9-Apr-09	5	49.08	449
466	9-Apr-09	6	49.06	437
467	9-Apr-09	7	49.11	353
468	9-Apr-09	8	49.16	308
469	9-Apr-09	10	48.99	147
470	9-Apr-09	11	49.06	200
471	9-Apr-09	13	49.08	254
472	9-Apr-09	14	49.18	218
473	9-Apr-09	16	49.14	264
474	9-Apr-09	18	49.13	109
475	9-Apr-09	20	48.98	158
476	9-Apr-09	21	49.11	175
477	9-Apr-09	22	49.14	101
478	9-Apr-09	23	49.05	77
479	9-Apr-09	27	49.07	59
480	9-Apr-09	28	49.18	152
481	9-Apr-09	33	49.18	180
482	9-Apr-09	34	49.18	172
483	9-Apr-09	35	49.14	210
484	9-Apr-09	38	49.18	202
485	9-Apr-09	39	49.05	186
486	9-Apr-09	42	49.18	203
487	9-Apr-09	45	49.17	255
488	9-Apr-09	46	49.12	99
489	9-Apr-09	47	49.06	56
490	9-Apr-09	51	49.09	138
491	9-Apr-09	53	49.19	253
492	9-Apr-09	54	49.12	139
493	9-Apr-09	55	49.08	45
494	9-Apr-09	56	49.10	11
495	9-Apr-09	61	49.12	20
496	9-Apr-09	62	49.14	61