

**MP 608 – Marshall, Michigan Incident  
NTSB/PHMSA Information Request No. 360**

**Reference:** NTSB email request of February 16, 2012 by Matt Nicholson for SCADA Control Center due February 21, 2012 (NTSB #373)

**Preamble:**

**Request:** Provide Excel sheet with columns showing the date, start time, end time, duration of line 6B shutdowns. From January 2007 through July 30th 2010. Explain procedure for control center operations during excavating, grinding and sleeving on Line 6B.

**Response:**

Please see the attached excel spreadsheet with columns showing the date, start time, end time, and duration of line 6B shutdowns from January 2007 through July 30<sup>th</sup> 2010.

For the procedures related to control center operations during excavating, grinding and sleeving on Line 6B, please see the attached pdf.

### Line 6B Shutdowns:

#	duration		
1	<b>Shutdown</b>	03-Jan-07 04:40:00	
	<b>Startup</b>	03-Jan-07 15:10:00	10:30:00
2	<b>Shutdown</b>	04-Jan-07 15:40:00	
	<b>Startup</b>	05-Jan-07 00:10:00	8:30:00
3	<b>Shutdown</b>	06-Jan-07 10:40:00	
	<b>Startup</b>	06-Jan-07 19:20:00	8:40:00
4	<b>Shutdown</b>	07-Jan-07 14:10:00	
	<b>Startup</b>	08-Jan-07 01:10:00	11:00:00
5	<b>Shutdown</b>	08-Jan-07 21:20:00	
	<b>Startup</b>	09-Jan-07 02:20:00	5:00:00
6	<b>Shutdown</b>	09-Jan-07 23:40:00	
	<b>Startup</b>	10-Jan-07 10:00:00	10:20:00
7	<b>Shutdown</b>	15-Jan-07 17:30:00	
	<b>Startup</b>	16-Jan-07 18:50:00	25:20:00
8	<b>Shutdown</b>	18-Jan-07 18:10:00	
	<b>Startup</b>	19-Jan-07 08:10:00	14:00:00
9	<b>Shutdown</b>	20-Jan-07 08:10:00	
	<b>Startup</b>	20-Jan-07 20:20:00	12:10:00
10	<b>Shutdown</b>	22-Jan-07 03:30:00	
	<b>Startup</b>	22-Jan-07 19:10:00	15:40:00
11	<b>Shutdown</b>	23-Jan-07 07:20:00	
	<b>Startup</b>	23-Jan-07 17:30:00	10:10:00
12	<b>Shutdown</b>	27-Jan-07 21:30:00	
	<b>Startup</b>	28-Jan-07 07:20:00	9:50:00
13	<b>Shutdown</b>	29-Jan-07 22:00:00	
	<b>Startup</b>	30-Jan-07 12:00:00	14:00:00
14	<b>Shutdown</b>	31-Jan-07 15:00:00	
	<b>Startup</b>	01-Feb-07 03:10:00	12:10:00

15	<b>Shutdown</b>	04-Feb-07 09:20:00	
	<b>Startup</b>	04-Feb-07 10:50:00	1:30:00
16	<b>Shutdown</b>	05-Feb-07 06:30:00	
	<b>Startup</b>	05-Feb-07 22:10:00	15:40:00
17	<b>Shutdown</b>	06-Feb-07 15:40:00	
	<b>Startup</b>	06-Feb-07 17:10:00	1:30:00
18	<b>Shutdown</b>	10-Feb-07 11:00:00	
	<b>Startup</b>	10-Feb-07 18:20:00	7:20:00
19	<b>Shutdown</b>	11-Feb-07 17:10:00	
	<b>Startup</b>	11-Feb-07 19:50:00	2:40:00
20	<b>Shutdown</b>	12-Feb-07 23:50:00	
	<b>Startup</b>	13-Feb-07 18:10:00	18:20:00
21	<b>Shutdown</b>	16-Feb-07 00:20:00	
	<b>Startup</b>	16-Feb-07 12:10:00	11:50:00
22	<b>Shutdown</b>	17-Feb-07 06:10:00	
	<b>Startup</b>	17-Feb-07 12:50:00	6:40:00
23	<b>Shutdown</b>	17-Feb-07 21:30:00	
	<b>Startup</b>	18-Feb-07 21:20:00	23:50:00
24	<b>Shutdown</b>	19-Feb-07 00:20:00	
	<b>Startup</b>	20-Feb-07 00:10:00	23:50:00
25	<b>Shutdown</b>	20-Feb-07 12:10:00	
	<b>Startup</b>	21-Feb-07 17:00:00	28:50:00
26	<b>Shutdown</b>	22-Feb-07 03:50:00	
	<b>Startup</b>	22-Feb-07 14:10:00	10:20:00
27	<b>Shutdown</b>	23-Feb-07 19:20:00	
	<b>Startup</b>	24-Feb-07 18:30:00	23:10:00
28	<b>Shutdown</b>	25-Feb-07 20:10:00	
	<b>Startup</b>	26-Feb-07 00:20:00	4:10:00
29	<b>Shutdown</b>	26-Feb-07 07:10:00	
	<b>Startup</b>	27-Feb-07 01:30:00	18:20:00
30	<b>Shutdown</b>	02-Mar-07 19:40:00	
	<b>Startup</b>	03-Mar-07 16:00:00	20:20:00

31	<b>Shutdown</b>	04-Mar-07 10:40:00	
	<b>Startup</b>	05-Mar-07 01:40:00	15:00:00
32	<b>Shutdown</b>	05-Mar-07 16:30:00	
	<b>Startup</b>	07-Mar-07 00:10:00	31:40:00
33	<b>Shutdown</b>	07-Mar-07 14:10:00	
	<b>Startup</b>	08-Mar-07 06:10:00	16:00:00
34	<b>Shutdown</b>	08-Mar-07 12:40:00	
	<b>Startup</b>	09-Mar-07 12:50:00	24:10:00
35	<b>Shutdown</b>	09-Mar-07 18:20:00	
	<b>Startup</b>	10-Mar-07 20:10:00	25:50:00
36	<b>Shutdown</b>	11-Mar-07 06:20:00	
	<b>Startup</b>	12-Mar-07 02:40:00	20:20:00
37	<b>Shutdown</b>	12-Mar-07 12:10:00	
	<b>Startup</b>	12-Mar-07 23:10:00	11:00:00
38	<b>Shutdown</b>	13-Mar-07 12:50:00	
	<b>Startup</b>	13-Mar-07 14:50:00	2:00:00
39	<b>Shutdown</b>	13-Mar-07 20:10:00	
	<b>Startup</b>	14-Mar-07 19:10:00	23:00:00
40	<b>Shutdown</b>	15-Mar-07 07:20:00	
	<b>Startup</b>	15-Mar-07 18:00:00	10:40:00
41	<b>Shutdown</b>	17-Mar-07 08:00:00	
	<b>Startup</b>	17-Mar-07 15:00:00	7:00:00
42	<b>Shutdown</b>	19-Mar-07 09:20:00	
	<b>Startup</b>	19-Mar-07 15:30:00	6:10:00
43	<b>Shutdown</b>	19-Mar-07 23:10:00	
	<b>Startup</b>	20-Mar-07 02:10:00	3:00:00
44	<b>Shutdown</b>	20-Mar-07 21:10:00	
	<b>Startup</b>	21-Mar-07 20:10:00	23:00:00
45	<b>Shutdown</b>	22-Mar-07 04:00:00	
	<b>Startup</b>	24-Mar-07 12:40:00	56:40:00
46	<b>Shutdown</b>	25-Mar-07 12:00:00	

	<b>Startup</b>	25-Mar-07 19:10:00	7:10:00
47	<b>Shutdown</b>	26-Mar-07 06:10:00	
	<b>Startup</b>	27-Mar-07 10:10:00	28:00:00
48	<b>Shutdown</b>	27-Mar-07 21:00:00	
	<b>Startup</b>	28-Mar-07 21:10:00	24:10:00
49	<b>Shutdown</b>	29-Mar-07 23:10:00	
	<b>Startup</b>	31-Mar-07 00:40:00	25:30:00
50	<b>Shutdown</b>	31-Mar-07 04:30:00	
	<b>Startup</b>	31-Mar-07 12:50:00	8:20:00
51	<b>Shutdown</b>	31-Mar-07 21:00:00	
	<b>Startup</b>	01-Apr-07 13:10:00	16:10:00
52	<b>Shutdown</b>	02-Apr-07 21:10:00	
	<b>Startup</b>	03-Apr-07 11:30:00	14:20:00
53	<b>Shutdown</b>	04-Apr-07 03:20:00	
	<b>Startup</b>	04-Apr-07 19:00:00	15:40:00
54	<b>Shutdown</b>	10-Apr-07 02:00:00	
	<b>Startup</b>	10-Apr-07 05:20:00	3:20:00
55	<b>Shutdown</b>	12-Apr-07 11:10:00	
	<b>Startup</b>	12-Apr-07 23:10:00	12:00:00
56	<b>Shutdown</b>	14-Apr-07 07:40:00	
	<b>Startup</b>	14-Apr-07 10:40:00	3:00:00
57	<b>Shutdown</b>	17-Apr-07 06:40:00	
	<b>Startup</b>	17-Apr-07 17:10:00	10:30:00
58	<b>Shutdown</b>	18-Apr-07 19:10:00	
	<b>Startup</b>	18-Apr-07 20:30:00	1:20:00
59	<b>Shutdown</b>	19-Apr-07 01:00:00	
	<b>Startup</b>	19-Apr-07 04:00:00	3:00:00
60	<b>Shutdown</b>	20-Apr-07 20:10:00	
	<b>Startup</b>	21-Apr-07 19:10:00	23:00:00
61	<b>Shutdown</b>	23-Apr-07 05:20:00	
	<b>Startup</b>	23-Apr-07 13:10:00	7:50:00

62	<b>Shutdown</b>	24-Apr-07 03:20:00	
	<b>Startup</b>	25-Apr-07 09:10:00	29:50:00
63	<b>Shutdown</b>	26-Apr-07 04:00:00	
	<b>Startup</b>	28-Apr-07 08:10:00	52:10:00
64	<b>Shutdown</b>	29-Apr-07 14:30:00	
	<b>Startup</b>	01-May-07 10:10:00	43:40:00
65	<b>Shutdown</b>	02-May-07 08:10:00	
	<b>Startup</b>	02-May-07 22:40:00	14:30:00
66	<b>Shutdown</b>	04-May-07 07:10:00	
	<b>Startup</b>	05-May-07 08:20:00	25:10:00
67	<b>Shutdown</b>	08-May-07 17:20:00	
	<b>Startup</b>	08-May-07 18:50:00	1:30:00
68	<b>Shutdown</b>	09-May-07 08:00:00	
	<b>Startup</b>	10-May-07 08:20:00	24:20:00
69	<b>Shutdown</b>	11-May-07 07:40:00	
	<b>Startup</b>	12-May-07 14:00:00	30:20:00
70	<b>Shutdown</b>	13-May-07 15:10:00	
	<b>Startup</b>	13-May-07 21:20:00	6:10:00
71	<b>Shutdown</b>	15-May-07 21:40:00	
	<b>Startup</b>	16-May-07 09:40:00	12:00:00
72	<b>Shutdown</b>	17-May-07 08:20:00	
	<b>Startup</b>	17-May-07 15:30:00	7:10:00
73	<b>Shutdown</b>	21-May-07 20:10:00	
	<b>Startup</b>	22-May-07 08:10:00	12:00:00
74	<b>Shutdown</b>	22-May-07 12:50:00	
	<b>Startup</b>	22-May-07 13:10:00	0:20:00
75	<b>Shutdown</b>	23-May-07 08:40:00	
	<b>Startup</b>	25-May-07 13:10:00	52:30:00
76	<b>Shutdown</b>	27-May-07 10:10:00	
	<b>Startup</b>	28-May-07 08:10:00	22:00:00
77	<b>Shutdown</b>	29-May-07 18:50:00	
	<b>Startup</b>	29-May-07 20:20:00	1:30:00

78	<b>Shutdown</b>	31-May-07 07:50:00	
	<b>Startup</b>	01-Jun-07 08:10:00	24:20:00
79	<b>Shutdown</b>	04-Jun-07 08:10:00	
	<b>Startup</b>	04-Jun-07 20:10:00	12:00:00
80	<b>Shutdown</b>	07-Jun-07 07:30:00	
	<b>Startup</b>	08-Jun-07 08:10:00	24:40:00
81	<b>Shutdown</b>	09-Jun-07 05:30:00	
	<b>Startup</b>	10-Jun-07 02:10:00	20:40:00
82	<b>Shutdown</b>	13-Jun-07 17:40:00	
	<b>Startup</b>	13-Jun-07 18:20:00	0:40:00
83	<b>Shutdown</b>	21-Jun-07 04:40:00	
	<b>Startup</b>	21-Jun-07 23:40:00	19:00:00
84	<b>Shutdown</b>	24-Jun-07 07:50:00	
	<b>Startup</b>	25-Jun-07 08:10:00	24:20:00
85	<b>Shutdown</b>	26-Jun-07 07:30:00	
	<b>Startup</b>	26-Jun-07 07:50:00	0:20:00
86	<b>Shutdown</b>	27-Jun-07 03:30:00	
	<b>Startup</b>	28-Jun-07 04:10:00	24:40:00
87	<b>Shutdown</b>	29-Jun-07 07:50:00	
	<b>Startup</b>	30-Jun-07 08:10:00	24:20:00
88	<b>Shutdown</b>	30-Jun-07 21:40:00	
	<b>Startup</b>	02-Jul-07 08:10:00	34:30:00
89	<b>Shutdown</b>	11-Jul-07 16:50:00	
	<b>Startup</b>	11-Jul-07 18:50:00	2:00:00
90	<b>Shutdown</b>	15-Jul-07 08:00:00	
	<b>Startup</b>	16-Jul-07 08:10:00	24:10:00
91	<b>Shutdown</b>	17-Jul-07 15:10:00	
	<b>Startup</b>	17-Jul-07 23:30:00	8:20:00
92	<b>Shutdown</b>	18-Jul-07 20:00:00	
	<b>Startup</b>	19-Jul-07 13:40:00	17:40:00
93	<b>Shutdown</b>	20-Jul-07 02:20:00	

	<b>Startup</b>	21-Jul-07 04:10:00	25:50:00
94	<b>Shutdown</b>	22-Jul-07 05:10:00	
	<b>Startup</b>	23-Jul-07 04:10:00	23:00:00
95	<b>Shutdown</b>	25-Jul-07 03:00:00	
	<b>Startup</b>	25-Jul-07 15:10:00	12:10:00
96	<b>Shutdown</b>	26-Jul-07 03:10:00	
	<b>Startup</b>	26-Jul-07 04:00:00	0:50:00
97	<b>Shutdown</b>	30-Jul-07 05:50:00	
	<b>Startup</b>	30-Jul-07 21:10:00	15:20:00
98	<b>Shutdown</b>	02-Aug-07 11:10:00	
	<b>Startup</b>	02-Aug-07 22:10:00	11:00:00
99	<b>Shutdown</b>	05-Aug-07 00:20:00	
	<b>Startup</b>	05-Aug-07 16:30:00	16:10:00
100	<b>Shutdown</b>	11-Aug-07 05:20:00	
	<b>Startup</b>	11-Aug-07 21:10:00	15:50:00
101	<b>Shutdown</b>	13-Aug-07 09:00:00	
	<b>Startup</b>	14-Aug-07 08:10:00	23:10:00
102	<b>Shutdown</b>	15-Aug-07 06:40:00	
	<b>Startup</b>	16-Aug-07 08:10:00	25:30:00
103	<b>Shutdown</b>	19-Aug-07 23:40:00	
	<b>Startup</b>	19-Aug-07 23:50:00	0:10:00
104	<b>Shutdown</b>	20-Aug-07 04:50:00	
	<b>Startup</b>	20-Aug-07 19:00:00	14:10:00
105	<b>Shutdown</b>	24-Aug-07 08:00:00	
	<b>Startup</b>	25-Aug-07 08:10:00	24:10:00
106	<b>Shutdown</b>	26-Aug-07 07:50:00	
	<b>Startup</b>	27-Aug-07 02:10:00	18:20:00
107	<b>Shutdown</b>	27-Aug-07 14:10:00	
	<b>Startup</b>	27-Aug-07 20:10:00	6:00:00
108	<b>Shutdown</b>	30-Aug-07 08:00:00	
	<b>Startup</b>	30-Aug-07 20:20:00	12:20:00



109	<b>Shutdown</b>	31-Aug-07 14:10:00	
	<b>Startup</b>	31-Aug-07 20:10:00	6:00:00
110	<b>Shutdown</b>	03-Sep-07 13:20:00	
	<b>Startup</b>	04-Sep-07 01:10:00	11:50:00
111	<b>Shutdown</b>	06-Sep-07 04:00:00	
	<b>Startup</b>	07-Sep-07 20:10:00	40:10:00
112	<b>Shutdown</b>	08-Sep-07 05:40:00	
	<b>Startup</b>	09-Sep-07 21:10:00	39:30:00
113	<b>Shutdown</b>	10-Sep-07 05:30:00	
	<b>Startup</b>	10-Sep-07 15:10:00	9:40:00
114	<b>Shutdown</b>	13-Sep-07 11:40:00	
	<b>Startup</b>	14-Sep-07 05:00:00	17:20:00
115	<b>Shutdown</b>	14-Sep-07 08:10:00	
	<b>Startup</b>	14-Sep-07 20:10:00	12:00:00
116	<b>Shutdown</b>	15-Sep-07 20:20:00	
	<b>Startup</b>	16-Sep-07 21:10:00	24:50:00
117	<b>Shutdown</b>	17-Sep-07 19:10:00	
	<b>Startup</b>	18-Sep-07 18:50:00	23:40:00
118	<b>Shutdown</b>	19-Sep-07 00:50:00	
	<b>Startup</b>	19-Sep-07 21:10:00	20:20:00
119	<b>Shutdown</b>	20-Sep-07 18:30:00	
	<b>Startup</b>	20-Sep-07 21:20:00	2:50:00
120	<b>Shutdown</b>	21-Sep-07 04:50:00	
	<b>Startup</b>	21-Sep-07 08:10:00	3:20:00
121	<b>Shutdown</b>	22-Sep-07 07:20:00	
	<b>Startup</b>	24-Sep-07 01:10:00	41:50:00
122	<b>Shutdown</b>	24-Sep-07 13:10:00	
	<b>Startup</b>	25-Sep-07 13:10:00	24:00:00
123	<b>Shutdown</b>	29-Sep-07 21:10:00	
	<b>Startup</b>	01-Oct-07 09:20:00	36:10:00
124	<b>Shutdown</b>	01-Oct-07 18:20:00	
	<b>Startup</b>	01-Oct-07 20:40:00	2:20:00

125	<b>Shutdown</b>	02-Oct-07 23:10:00	
	<b>Startup</b>	03-Oct-07 11:00:00	11:50:00
126	<b>Shutdown</b>	03-Oct-07 11:40:00	
	<b>Startup</b>	04-Oct-07 14:40:00	27:00:00
127	<b>Shutdown</b>	06-Oct-07 01:00:00	
	<b>Startup</b>	06-Oct-07 12:20:00	11:20:00
128	<b>Shutdown</b>	07-Oct-07 21:10:00	
	<b>Startup</b>	08-Oct-07 09:10:00	12:00:00
129	<b>Shutdown</b>	09-Oct-07 15:30:00	
	<b>Startup</b>	10-Oct-07 03:20:00	11:50:00
130	<b>Shutdown</b>	11-Oct-07 07:10:00	
	<b>Startup</b>	12-Oct-07 01:10:00	18:00:00
131	<b>Shutdown</b>	12-Oct-07 07:10:00	
	<b>Startup</b>	12-Oct-07 19:10:00	12:00:00
132	<b>Shutdown</b>	13-Oct-07 01:40:00	
	<b>Startup</b>	13-Oct-07 02:00:00	0:20:00
133	<b>Shutdown</b>	13-Oct-07 07:40:00	
	<b>Startup</b>	14-Oct-07 13:10:00	29:30:00
134	<b>Shutdown</b>	15-Oct-07 01:20:00	
	<b>Startup</b>	15-Oct-07 13:10:00	11:50:00
135	<b>Shutdown</b>	17-Oct-07 09:40:00	
	<b>Startup</b>	17-Oct-07 19:10:00	9:30:00
136	<b>Shutdown</b>	20-Oct-07 06:20:00	
	<b>Startup</b>	20-Oct-07 13:00:00	6:40:00
137	<b>Shutdown</b>	21-Oct-07 01:10:00	
	<b>Startup</b>	21-Oct-07 16:10:00	15:00:00
138	<b>Shutdown</b>	22-Oct-07 12:00:00	
	<b>Startup</b>	23-Oct-07 16:00:00	28:00:00
139	<b>Shutdown</b>	25-Oct-07 01:10:00	
	<b>Startup</b>	25-Oct-07 13:10:00	12:00:00
140	<b>Shutdown</b>	26-Oct-07 00:30:00	

	<b>Startup</b>	28-Oct-07 13:10:00	60:40:00
141	<b>Shutdown</b>	29-Oct-07 01:20:00	
	<b>Startup</b>	29-Oct-07 16:10:00	14:50:00
142	<b>Shutdown</b>	30-Oct-07 08:00:00	
	<b>Startup</b>	31-Oct-07 08:10:00	24:10:00
143	<b>Shutdown</b>	01-Nov-07 09:50:00	
	<b>Startup</b>	01-Nov-07 10:40:00	0:50:00
144	<b>Shutdown</b>	02-Nov-07 08:00:00	
	<b>Startup</b>	02-Nov-07 22:10:00	14:10:00
145	<b>Shutdown</b>	03-Nov-07 06:10:00	
	<b>Startup</b>	03-Nov-07 12:10:00	6:00:00
146	<b>Shutdown</b>	04-Nov-07 05:40:00	
	<b>Startup</b>	04-Nov-07 23:10:00	17:30:00
147	<b>Shutdown</b>	07-Nov-07 15:10:00	
	<b>Startup</b>	09-Nov-07 14:10:00	47:00:00
148	<b>Shutdown</b>	10-Nov-07 02:50:00	
	<b>Startup</b>	10-Nov-07 09:10:00	6:20:00
149	<b>Shutdown</b>	13-Nov-07 11:50:00	
	<b>Startup</b>	13-Nov-07 12:30:00	0:40:00
150	<b>Shutdown</b>	14-Nov-07 06:20:00	
	<b>Startup</b>	15-Nov-07 08:10:00	25:50:00
151	<b>Shutdown</b>	18-Nov-07 12:40:00	
	<b>Startup</b>	19-Nov-07 00:40:00	12:00:00
152	<b>Shutdown</b>	19-Nov-07 06:10:00	
	<b>Startup</b>	19-Nov-07 06:30:00	0:20:00
153	<b>Shutdown</b>	19-Nov-07 17:10:00	
	<b>Startup</b>	21-Nov-07 06:00:00	36:50:00
154	<b>Shutdown</b>	22-Nov-07 06:30:00	
	<b>Startup</b>	22-Nov-07 07:00:00	0:30:00
155	<b>Shutdown</b>	23-Nov-07 13:20:00	
	<b>Startup</b>	23-Nov-07 20:20:00	7:00:00

156	<b>Shutdown</b>	25-Nov-07 02:40:00	
	<b>Startup</b>	25-Nov-07 03:20:00	0:40:00
157	<b>Shutdown</b>	27-Nov-07 16:50:00	
	<b>Startup</b>	27-Nov-07 17:30:00	0:40:00
158	<b>Shutdown</b>	28-Nov-07 13:20:00	
	<b>Startup</b>	28-Nov-07 19:40:00	6:20:00
159	<b>Shutdown</b>	01-Dec-07 15:10:00	
	<b>Startup</b>	02-Dec-07 00:00:00	8:50:00
160	<b>Shutdown</b>	02-Dec-07 14:00:00	
	<b>Startup</b>	03-Dec-07 14:00:00	24:00:00
161	<b>Shutdown</b>	04-Dec-07 08:10:00	
	<b>Startup</b>	05-Dec-07 14:10:00	30:00:00
162	<b>Shutdown</b>	11-Dec-07 18:50:00	
	<b>Startup</b>	12-Dec-07 07:10:00	12:20:00
163	<b>Shutdown</b>	14-Dec-07 23:00:00	
	<b>Startup</b>	15-Dec-07 04:20:00	5:20:00
164	<b>Shutdown</b>	21-Dec-07 12:10:00	
	<b>Startup</b>	22-Dec-07 06:20:00	18:10:00
165	<b>Shutdown</b>	24-Dec-07 12:00:00	
	<b>Startup</b>	25-Dec-07 03:00:00	15:00:00
166	<b>Shutdown</b>	30-Dec-07 07:00:00	
	<b>Startup</b>	30-Dec-07 18:00:00	11:00:00
167	<b>Shutdown</b>	31-Dec-07 18:20:00	
	<b>Startup</b>	31-Dec-07 19:00:00	0:40:00
168	<b>Shutdown</b>	03-Jan-08 11:20:00	
	<b>Startup</b>	03-Jan-08 15:40:00	4:20:00
169	<b>Shutdown</b>	09-Jan-08 11:30:00	
	<b>Startup</b>	09-Jan-08 13:20:00	1:50:00
170	<b>Shutdown</b>	10-Jan-08 11:00:00	
	<b>Startup</b>	10-Jan-08 11:20:00	0:20:00
171	<b>Shutdown</b>	15-Jan-08 07:10:00	
	<b>Startup</b>	15-Jan-08 15:00:00	7:50:00

172	<b>Shutdown</b>	19-Jan-08 18:20:00	
	<b>Startup</b>	19-Jan-08 22:20:00	4:00:00
173	<b>Shutdown</b>	20-Jan-08 09:10:00	
	<b>Startup</b>	20-Jan-08 11:10:00	2:00:00
174	<b>Shutdown</b>	25-Jan-08 05:00:00	
	<b>Startup</b>	25-Jan-08 05:40:00	0:40:00
175	<b>Shutdown</b>	27-Jan-08 02:20:00	
	<b>Startup</b>	28-Jan-08 07:10:00	28:50:00
176	<b>Shutdown</b>	30-Jan-08 01:10:00	
	<b>Startup</b>	30-Jan-08 13:50:00	12:40:00
177	<b>Shutdown</b>	30-Jan-08 20:00:00	
	<b>Startup</b>	31-Jan-08 00:10:00	4:10:00
178	<b>Shutdown</b>	01-Feb-08 06:40:00	
	<b>Startup</b>	01-Feb-08 22:10:00	15:30:00
179	<b>Shutdown</b>	06-Feb-08 06:30:00	
	<b>Startup</b>	06-Feb-08 07:30:00	1:00:00
180	<b>Shutdown</b>	08-Feb-08 22:10:00	
	<b>Startup</b>	09-Feb-08 03:00:00	4:50:00
181	<b>Shutdown</b>	20-Feb-08 23:00:00	
	<b>Startup</b>	21-Feb-08 17:10:00	18:10:00
182	<b>Shutdown</b>	22-Feb-08 07:20:00	
	<b>Startup</b>	22-Feb-08 17:10:00	9:50:00
183	<b>Shutdown</b>	01-Mar-08 01:40:00	
	<b>Startup</b>	01-Mar-08 11:30:00	9:50:00
184	<b>Shutdown</b>	06-Mar-08 22:50:00	
	<b>Startup</b>	06-Mar-08 23:10:00	0:20:00
185	<b>Shutdown</b>	08-Mar-08 04:00:00	
	<b>Startup</b>	08-Mar-08 05:30:00	1:30:00
186	<b>Shutdown</b>	10-Mar-08 07:40:00	
	<b>Startup</b>	10-Mar-08 11:10:00	3:30:00
187	<b>Shutdown</b>	11-Mar-08 10:10:00	

	<b>Startup</b>	11-Mar-08 19:00:00	8:50:00
188	<b>Shutdown</b>	12-Mar-08 03:50:00	
	<b>Startup</b>	12-Mar-08 13:20:00	9:30:00
189	<b>Shutdown</b>	13-Mar-08 08:50:00	
	<b>Startup</b>	14-Mar-08 14:10:00	29:20:00
190	<b>Shutdown</b>	15-Mar-08 09:00:00	
	<b>Startup</b>	15-Mar-08 22:20:00	13:20:00
191	<b>Shutdown</b>	17-Mar-08 08:10:00	
	<b>Startup</b>	17-Mar-08 13:00:00	4:50:00
192	<b>Shutdown</b>	19-Mar-08 18:00:00	
	<b>Startup</b>	20-Mar-08 14:10:00	20:10:00
193	<b>Shutdown</b>	22-Mar-08 20:20:00	
	<b>Startup</b>	22-Mar-08 23:10:00	2:50:00
194	<b>Shutdown</b>	23-Mar-08 11:10:00	
	<b>Startup</b>	23-Mar-08 20:10:00	9:00:00
195	<b>Shutdown</b>	31-Mar-08 06:20:00	
	<b>Startup</b>	01-Apr-08 03:30:00	21:10:00
196	<b>Shutdown</b>	01-Apr-08 12:10:00	
	<b>Startup</b>	01-Apr-08 14:40:00	2:30:00
197	<b>Shutdown</b>	02-Apr-08 22:10:00	
	<b>Startup</b>	04-Apr-08 07:10:00	33:00:00
198	<b>Shutdown</b>	05-Apr-08 21:10:00	
	<b>Startup</b>	06-Apr-08 06:40:00	9:30:00
199	<b>Shutdown</b>	08-Apr-08 21:00:00	
	<b>Startup</b>	08-Apr-08 22:20:00	1:20:00
200	<b>Shutdown</b>	10-Apr-08 13:10:00	
	<b>Startup</b>	10-Apr-08 13:20:00	0:10:00
201	<b>Shutdown</b>	15-Apr-08 07:10:00	
	<b>Startup</b>	15-Apr-08 21:20:00	14:10:00
202	<b>Shutdown</b>	17-Apr-08 04:10:00	
	<b>Startup</b>	18-Apr-08 08:40:00	28:30:00

203	<b>Shutdown</b>	21-Apr-08 00:30:00	
	<b>Startup</b>	21-Apr-08 19:10:00	18:40:00
204	<b>Shutdown</b>	25-Apr-08 04:20:00	
	<b>Startup</b>	25-Apr-08 16:00:00	11:40:00
205	<b>Shutdown</b>	27-Apr-08 21:50:00	
	<b>Startup</b>	28-Apr-08 16:00:00	18:10:00
206	<b>Shutdown</b>	03-May-08 06:50:00	
	<b>Startup</b>	03-May-08 08:10:00	1:20:00
207	<b>Shutdown</b>	07-May-08 07:40:00	
	<b>Startup</b>	09-May-08 01:40:00	42:00:00
208	<b>Shutdown</b>	13-May-08 15:00:00	
	<b>Startup</b>	13-May-08 17:20:00	2:20:00
209	<b>Shutdown</b>	14-May-08 09:30:00	
	<b>Startup</b>	14-May-08 10:00:00	0:30:00
210	<b>Shutdown</b>	14-May-08 17:20:00	
	<b>Startup</b>	14-May-08 17:40:00	0:20:00
211	<b>Shutdown</b>	14-May-08 22:30:00	
	<b>Startup</b>	15-May-08 00:00:00	1:30:00
212	<b>Shutdown</b>	15-May-08 09:10:00	
	<b>Startup</b>	15-May-08 12:10:00	3:00:00
213	<b>Shutdown</b>	16-May-08 17:40:00	
	<b>Startup</b>	16-May-08 18:00:00	0:20:00
214	<b>Shutdown</b>	17-May-08 00:10:00	
	<b>Startup</b>	17-May-08 05:10:00	5:00:00
215	<b>Shutdown</b>	18-May-08 05:50:00	
	<b>Startup</b>	18-May-08 16:10:00	10:20:00
216	<b>Shutdown</b>	19-May-08 07:20:00	
	<b>Startup</b>	19-May-08 16:20:00	9:00:00
217	<b>Shutdown</b>	19-May-08 17:00:00	
	<b>Startup</b>	19-May-08 19:30:00	2:30:00
218	<b>Shutdown</b>	21-May-08 04:50:00	
	<b>Startup</b>	21-May-08 16:20:00	11:30:00

219	<b>Shutdown</b>	26-May-08 05:00:00	
	<b>Startup</b>	26-May-08 15:10:00	10:10:00
220	<b>Shutdown</b>	27-May-08 05:50:00	
	<b>Startup</b>	29-May-08 17:50:00	60:00:00
221	<b>Shutdown</b>	30-May-08 07:00:00	
	<b>Startup</b>	30-May-08 07:40:00	0:40:00
222	<b>Shutdown</b>	02-Jun-08 04:00:00	
	<b>Startup</b>	02-Jun-08 19:10:00	15:10:00
223	<b>Shutdown</b>	03-Jun-08 05:40:00	
	<b>Startup</b>	03-Jun-08 17:40:00	12:00:00
224	<b>Shutdown</b>	04-Jun-08 20:10:00	
	<b>Startup</b>	05-Jun-08 13:10:00	17:00:00
225	<b>Shutdown</b>	05-Jun-08 15:50:00	
	<b>Startup</b>	05-Jun-08 19:10:00	3:20:00
226	<b>Shutdown</b>	06-Jun-08 10:10:00	
	<b>Startup</b>	06-Jun-08 19:20:00	9:10:00
227	<b>Shutdown</b>	08-Jun-08 05:50:00	
	<b>Startup</b>	09-Jun-08 10:40:00	28:50:00
228	<b>Shutdown</b>	10-Jun-08 08:00:00	
	<b>Startup</b>	11-Jun-08 05:40:00	21:40:00
229	<b>Shutdown</b>	12-Jun-08 17:40:00	
	<b>Startup</b>	12-Jun-08 18:20:00	0:40:00
230	<b>Shutdown</b>	13-Jun-08 21:00:00	
	<b>Startup</b>	14-Jun-08 08:10:00	11:10:00
231	<b>Shutdown</b>	17-Jun-08 20:10:00	
	<b>Startup</b>	17-Jun-08 20:50:00	0:40:00
232	<b>Shutdown</b>	20-Jun-08 13:10:00	
	<b>Startup</b>	21-Jun-08 04:10:00	15:00:00
233	<b>Shutdown</b>	23-Jun-08 12:10:00	
	<b>Startup</b>	24-Jun-08 03:10:00	15:00:00
234	<b>Shutdown</b>	25-Jun-08 14:30:00	



	<b>Startup</b>	25-Jun-08 17:30:00	3:00:00
235	<b>Shutdown</b>	26-Jun-08 05:20:00	
	<b>Startup</b>	26-Jun-08 22:10:00	16:50:00
236	<b>Shutdown</b>	28-Jun-08 03:00:00	
	<b>Startup</b>	28-Jun-08 11:40:00	8:40:00
237	<b>Shutdown</b>	29-Jun-08 05:20:00	
	<b>Startup</b>	29-Jun-08 17:10:00	11:50:00
238	<b>Shutdown</b>	02-Jul-08 11:40:00	
	<b>Startup</b>	02-Jul-08 12:20:00	0:40:00
239	<b>Shutdown</b>	03-Jul-08 01:10:00	
	<b>Startup</b>	03-Jul-08 08:40:00	7:30:00
240	<b>Shutdown</b>	03-Jul-08 10:30:00	
	<b>Startup</b>	03-Jul-08 14:30:00	4:00:00
241	<b>Shutdown</b>	04-Jul-08 21:00:00	
	<b>Startup</b>	05-Jul-08 05:10:00	8:10:00
242	<b>Shutdown</b>	06-Jul-08 04:00:00	
	<b>Startup</b>	06-Jul-08 12:10:00	8:10:00
243	<b>Shutdown</b>	07-Jul-08 18:40:00	
	<b>Startup</b>	08-Jul-08 14:40:00	20:00:00
244	<b>Shutdown</b>	11-Jul-08 03:10:00	
	<b>Startup</b>	11-Jul-08 07:10:00	4:00:00
245	<b>Shutdown</b>	13-Jul-08 18:40:00	
	<b>Startup</b>	14-Jul-08 11:40:00	17:00:00
246	<b>Shutdown</b>	18-Jul-08 02:10:00	
	<b>Startup</b>	18-Jul-08 03:30:00	1:20:00
247	<b>Shutdown</b>	19-Jul-08 01:10:00	
	<b>Startup</b>	20-Jul-08 19:10:00	42:00:00
248	<b>Shutdown</b>	22-Jul-08 10:20:00	
	<b>Startup</b>	22-Jul-08 22:10:00	11:50:00
249	<b>Shutdown</b>	26-Jul-08 10:10:00	
	<b>Startup</b>	27-Jul-08 00:10:00	14:00:00

250	<b>Shutdown</b>	28-Jul-08 15:00:00	
	<b>Startup</b>	28-Jul-08 15:10:00	0:10:00
251	<b>Shutdown</b>	29-Jul-08 02:30:00	
	<b>Startup</b>	31-Jul-08 03:40:00	49:10:00
252	<b>Shutdown</b>	31-Jul-08 12:50:00	
	<b>Startup</b>	31-Jul-08 13:50:00	1:00:00
253	<b>Shutdown</b>	31-Jul-08 19:00:00	
	<b>Startup</b>	31-Jul-08 19:20:00	0:20:00
254	<b>Shutdown</b>	01-Aug-08 11:30:00	
	<b>Startup</b>	01-Aug-08 12:10:00	0:40:00
255	<b>Shutdown</b>	01-Aug-08 23:10:00	
	<b>Startup</b>	02-Aug-08 14:30:00	15:20:00
256	<b>Shutdown</b>	05-Aug-08 15:30:00	
	<b>Startup</b>	05-Aug-08 19:40:00	4:10:00
257	<b>Shutdown</b>	07-Aug-08 04:10:00	
	<b>Startup</b>	08-Aug-08 09:10:00	29:00:00
258	<b>Shutdown</b>	09-Aug-08 20:10:00	
	<b>Startup</b>	09-Aug-08 20:40:00	0:30:00
259	<b>Shutdown</b>	10-Aug-08 06:10:00	
	<b>Startup</b>	10-Aug-08 12:00:00	5:50:00
260	<b>Shutdown</b>	14-Aug-08 18:10:00	
	<b>Startup</b>	15-Aug-08 07:40:00	13:30:00
261	<b>Shutdown</b>	15-Aug-08 11:50:00	
	<b>Startup</b>	15-Aug-08 12:10:00	0:20:00
262	<b>Shutdown</b>	16-Aug-08 04:10:00	
	<b>Startup</b>	16-Aug-08 06:10:00	2:00:00
263	<b>Shutdown</b>	18-Aug-08 16:30:00	
	<b>Startup</b>	19-Aug-08 02:40:00	10:10:00
264	<b>Shutdown</b>	19-Aug-08 03:40:00	
	<b>Startup</b>	19-Aug-08 04:00:00	0:20:00
265	<b>Shutdown</b>	20-Aug-08 11:10:00	
	<b>Startup</b>	20-Aug-08 21:10:00	10:00:00

266	<b>Shutdown</b>	23-Aug-08 01:40:00	
	<b>Startup</b>	23-Aug-08 07:00:00	5:20:00
267	<b>Shutdown</b>	26-Aug-08 23:40:00	
	<b>Startup</b>	27-Aug-08 05:40:00	6:00:00
268	<b>Shutdown</b>	30-Aug-08 05:20:00	
	<b>Startup</b>	31-Aug-08 11:30:00	30:10:00
269	<b>Shutdown</b>	03-Sep-08 06:10:00	
	<b>Startup</b>	03-Sep-08 09:00:00	2:50:00
270	<b>Shutdown</b>	06-Sep-08 11:40:00	
	<b>Startup</b>	06-Sep-08 22:20:00	10:40:00
271	<b>Shutdown</b>	07-Sep-08 16:40:00	
	<b>Startup</b>	08-Sep-08 06:40:00	14:00:00
272	<b>Shutdown</b>	10-Sep-08 03:10:00	
	<b>Startup</b>	10-Sep-08 06:50:00	3:40:00
273	<b>Shutdown</b>	10-Sep-08 23:10:00	
	<b>Startup</b>	12-Sep-08 01:40:00	26:30:00
274	<b>Shutdown</b>	16-Sep-08 06:20:00	
	<b>Startup</b>	17-Sep-08 10:10:00	27:50:00
275	<b>Shutdown</b>	25-Sep-08 16:30:00	
	<b>Startup</b>	25-Sep-08 17:20:00	0:50:00
276	<b>Shutdown</b>	25-Sep-08 18:00:00	
	<b>Startup</b>	25-Sep-08 19:30:00	1:30:00
277	<b>Shutdown</b>	26-Sep-08 14:20:00	
	<b>Startup</b>	26-Sep-08 20:20:00	6:00:00
278	<b>Shutdown</b>	05-Oct-08 10:30:00	
	<b>Startup</b>	05-Oct-08 20:40:00	10:10:00
279	<b>Shutdown</b>	08-Oct-08 06:50:00	
	<b>Startup</b>	08-Oct-08 17:10:00	10:20:00
280	<b>Shutdown</b>	14-Oct-08 23:10:00	
	<b>Startup</b>	15-Oct-08 01:00:00	1:50:00
281	<b>Shutdown</b>	16-Oct-08 16:00:00	

	<b>Startup</b>	16-Oct-08 20:00:00	4:00:00
282	<b>Shutdown</b>	18-Oct-08 00:00:00	
	<b>Startup</b>	18-Oct-08 01:00:00	1:00:00
283	<b>Shutdown</b>	21-Oct-08 13:40:00	
	<b>Startup</b>	22-Oct-08 17:40:00	28:00:00
284	<b>Shutdown</b>	29-Oct-08 20:20:00	
	<b>Startup</b>	29-Oct-08 20:40:00	0:20:00
285	<b>Shutdown</b>	30-Oct-08 21:50:00	
	<b>Startup</b>	31-Oct-08 03:30:00	5:40:00
286	<b>Shutdown</b>	04-Nov-08 21:20:00	
	<b>Startup</b>	05-Nov-08 23:40:00	26:20:00
287	<b>Shutdown</b>	07-Nov-08 19:40:00	
	<b>Startup</b>	08-Nov-08 09:10:00	13:30:00
288	<b>Shutdown</b>	08-Nov-08 20:00:00	
	<b>Startup</b>	09-Nov-08 07:20:00	11:20:00
289	<b>Shutdown</b>	10-Nov-08 22:10:00	
	<b>Startup</b>	11-Nov-08 04:10:00	6:00:00
290	<b>Shutdown</b>	13-Nov-08 10:20:00	
	<b>Startup</b>	13-Nov-08 21:10:00	10:50:00
291	<b>Shutdown</b>	21-Nov-08 17:40:00	
	<b>Startup</b>	21-Nov-08 19:30:00	1:50:00
292	<b>Shutdown</b>	23-Nov-08 01:30:00	
	<b>Startup</b>	23-Nov-08 04:40:00	3:10:00
293	<b>Shutdown</b>	25-Nov-08 01:50:00	
	<b>Startup</b>	26-Nov-08 04:40:00	26:50:00
294	<b>Shutdown</b>	26-Nov-08 22:20:00	
	<b>Startup</b>	28-Nov-08 02:40:00	28:20:00
295	<b>Shutdown</b>	30-Nov-08 11:20:00	
	<b>Startup</b>	30-Nov-08 12:30:00	1:10:00
296	<b>Shutdown</b>	02-Dec-08 04:40:00	
	<b>Startup</b>	02-Dec-08 22:10:00	17:30:00

297	<b>Shutdown</b>	04-Dec-08 04:40:00	
	<b>Startup</b>	04-Dec-08 19:10:00	14:30:00
298	<b>Shutdown</b>	05-Dec-08 07:50:00	
	<b>Startup</b>	05-Dec-08 08:40:00	0:50:00
299	<b>Shutdown</b>	06-Dec-08 07:20:00	
	<b>Startup</b>	06-Dec-08 10:30:00	3:10:00
300	<b>Shutdown</b>	07-Dec-08 06:40:00	
	<b>Startup</b>	07-Dec-08 08:00:00	1:20:00
301	<b>Shutdown</b>	09-Dec-08 04:30:00	
	<b>Startup</b>	09-Dec-08 18:10:00	13:40:00
302	<b>Shutdown</b>	14-Dec-08 00:50:00	
	<b>Startup</b>	14-Dec-08 12:20:00	11:30:00
303	<b>Shutdown</b>	19-Dec-08 10:40:00	
	<b>Startup</b>	19-Dec-08 11:20:00	0:40:00
304	<b>Shutdown</b>	23-Dec-08 05:50:00	
	<b>Startup</b>	23-Dec-08 07:40:00	1:50:00
305	<b>Shutdown</b>	24-Dec-08 22:20:00	
	<b>Startup</b>	25-Dec-08 02:10:00	3:50:00
306	<b>Shutdown</b>	09-Jan-09 06:30:00	
	<b>Startup</b>	10-Jan-09 17:10:00	34:40:00
307	<b>Shutdown</b>	11-Jan-09 02:10:00	
	<b>Startup</b>	12-Jan-09 06:00:00	27:50:00
308	<b>Shutdown</b>	13-Jan-09 18:50:00	
	<b>Startup</b>	13-Jan-09 20:50:00	2:00:00
309	<b>Shutdown</b>	14-Jan-09 13:40:00	
	<b>Startup</b>	14-Jan-09 15:40:00	2:00:00
310	<b>Shutdown</b>	17-Jan-09 07:10:00	
	<b>Startup</b>	17-Jan-09 15:40:00	8:30:00
311	<b>Shutdown</b>	28-Jan-09 04:40:00	
	<b>Startup</b>	28-Jan-09 21:10:00	16:30:00
312	<b>Shutdown</b>	31-Jan-09 22:30:00	
	<b>Startup</b>	01-Feb-09 03:10:00	4:40:00

msu-6-gt-dsc.pres

5 seconds

2/22/2012 15:00

2/22/2012 16:00

313	<b>Shutdown</b>	04-Feb-09 03:50:00	
	<b>Startup</b>	04-Feb-09 18:10:00	14:20:00
314	<b>Shutdown</b>	06-Feb-09 03:50:00	
	<b>Startup</b>	07-Feb-09 01:10:00	21:20:00
315	<b>Shutdown</b>	09-Feb-09 17:30:00	
	<b>Startup</b>	10-Feb-09 07:20:00	13:50:00
316	<b>Shutdown</b>	10-Feb-09 13:30:00	
	<b>Startup</b>	12-Feb-09 14:10:00	48:40:00
317	<b>Shutdown</b>	16-Feb-09 11:10:00	
	<b>Startup</b>	17-Feb-09 15:10:00	28:00:00
318	<b>Shutdown</b>	19-Feb-09 13:10:00	
	<b>Startup</b>	21-Feb-09 18:00:00	52:50:00
319	<b>Shutdown</b>	24-Feb-09 03:40:00	
	<b>Startup</b>	24-Feb-09 11:50:00	8:10:00
320	<b>Shutdown</b>	25-Feb-09 04:00:00	
	<b>Startup</b>	25-Feb-09 11:40:00	7:40:00
321	<b>Shutdown</b>	26-Feb-09 08:10:00	
	<b>Startup</b>	27-Feb-09 07:10:00	23:00:00
322	<b>Shutdown</b>	05-Mar-09 16:10:00	
	<b>Startup</b>	06-Mar-09 00:50:00	8:40:00
323	<b>Shutdown</b>	07-Mar-09 02:30:00	
	<b>Startup</b>	07-Mar-09 18:10:00	15:40:00
324	<b>Shutdown</b>	08-Mar-09 05:10:00	
	<b>Startup</b>	08-Mar-09 19:00:00	13:50:00
325	<b>Shutdown</b>	09-Mar-09 02:40:00	
	<b>Startup</b>	09-Mar-09 04:10:00	1:30:00
326	<b>Shutdown</b>	14-Mar-09 04:30:00	
	<b>Startup</b>	15-Mar-09 03:10:00	22:40:00
327	<b>Shutdown</b>	16-Mar-09 16:30:00	
	<b>Startup</b>	17-Mar-09 18:10:00	25:40:00
328	<b>Shutdown</b>	19-Mar-09 04:40:00	

	<b>Startup</b>	19-Mar-09 19:10:00	14:30:00
329	<b>Shutdown</b>	20-Mar-09 17:10:00	
	<b>Startup</b>	21-Mar-09 19:00:00	25:50:00
330	<b>Shutdown</b>	22-Mar-09 03:40:00	
	<b>Startup</b>	23-Mar-09 13:00:00	33:20:00
331	<b>Shutdown</b>	25-Mar-09 15:40:00	
	<b>Startup</b>	25-Mar-09 17:20:00	1:40:00
332	<b>Shutdown</b>	25-Mar-09 22:00:00	
	<b>Startup</b>	26-Mar-09 21:10:00	23:10:00
333	<b>Shutdown</b>	29-Mar-09 04:10:00	
	<b>Startup</b>	29-Mar-09 19:20:00	15:10:00
334	<b>Shutdown</b>	01-Apr-09 03:40:00	
	<b>Startup</b>	01-Apr-09 14:40:00	11:00:00
335	<b>Shutdown</b>	02-Apr-09 02:10:00	
	<b>Startup</b>	02-Apr-09 10:50:00	8:40:00
336	<b>Shutdown</b>	03-Apr-09 04:30:00	
	<b>Startup</b>	03-Apr-09 11:10:00	6:40:00
337	<b>Shutdown</b>	06-Apr-09 08:50:00	
	<b>Startup</b>	06-Apr-09 13:30:00	4:40:00
338	<b>Shutdown</b>	07-Apr-09 11:10:00	
	<b>Startup</b>	08-Apr-09 07:10:00	20:00:00
339	<b>Shutdown</b>	11-Apr-09 04:00:00	
	<b>Startup</b>	11-Apr-09 18:10:00	14:10:00
340	<b>Shutdown</b>	13-Apr-09 10:20:00	
	<b>Startup</b>	13-Apr-09 11:10:00	0:50:00
341	<b>Shutdown</b>	14-Apr-09 09:40:00	
	<b>Startup</b>	15-Apr-09 09:40:00	24:00:00
342	<b>Shutdown</b>	16-Apr-09 20:50:00	
	<b>Startup</b>	17-Apr-09 08:10:00	11:20:00
343	<b>Shutdown</b>	21-Apr-09 14:10:00	
	<b>Startup</b>	22-Apr-09 14:10:00	24:00:00

344	<b>Shutdown</b>	24-Apr-09 00:20:00	
	<b>Startup</b>	24-Apr-09 01:50:00	1:30:00
345	<b>Shutdown</b>	24-Apr-09 08:00:00	
	<b>Startup</b>	25-Apr-09 00:10:00	16:10:00
346	<b>Shutdown</b>	01-May-09 19:50:00	
	<b>Startup</b>	02-May-09 15:20:00	19:30:00
347	<b>Shutdown</b>	08-May-09 16:40:00	
	<b>Startup</b>	08-May-09 17:10:00	0:30:00
348	<b>Shutdown</b>	09-May-09 05:50:00	
	<b>Startup</b>	10-May-09 02:10:00	20:20:00
349	<b>Shutdown</b>	13-May-09 04:30:00	
	<b>Startup</b>	13-May-09 17:10:00	12:40:00
350	<b>Shutdown</b>	15-May-09 15:10:00	
	<b>Startup</b>	15-May-09 21:10:00	6:00:00
351	<b>Shutdown</b>	17-May-09 07:50:00	
	<b>Startup</b>	18-May-09 04:10:00	20:20:00
352	<b>Shutdown</b>	22-May-09 02:20:00	
	<b>Startup</b>	22-May-09 11:10:00	8:50:00
353	<b>Shutdown</b>	31-May-09 17:30:00	
	<b>Startup</b>	31-May-09 18:50:00	1:20:00
354	<b>Shutdown</b>	03-Jun-09 07:10:00	
	<b>Startup</b>	04-Jun-09 07:20:00	24:10:00
355	<b>Shutdown</b>	04-Jun-09 13:40:00	
	<b>Startup</b>	04-Jun-09 14:00:00	0:20:00
356	<b>Shutdown</b>	05-Jun-09 14:30:00	
	<b>Startup</b>	06-Jun-09 06:10:00	15:40:00
357	<b>Shutdown</b>	06-Jun-09 17:50:00	
	<b>Startup</b>	07-Jun-09 08:20:00	14:30:00
358	<b>Shutdown</b>	13-Jun-09 20:20:00	
	<b>Startup</b>	14-Jun-09 01:50:00	5:30:00
359	<b>Shutdown</b>	14-Jun-09 12:10:00	
	<b>Startup</b>	14-Jun-09 14:20:00	2:10:00



360	<b>Shutdown</b>	15-Jun-09 09:00:00	
	<b>Startup</b>	15-Jun-09 13:10:00	4:10:00
361	<b>Shutdown</b>	19-Jun-09 10:10:00	
	<b>Startup</b>	19-Jun-09 11:10:00	1:00:00
362	<b>Shutdown</b>	29-Jun-09 07:50:00	
	<b>Startup</b>	29-Jun-09 16:10:00	8:20:00
363	<b>Shutdown</b>	02-Jul-09 05:00:00	
	<b>Startup</b>	03-Jul-09 08:10:00	27:10:00
364	<b>Shutdown</b>	04-Jul-09 03:10:00	
	<b>Startup</b>	04-Jul-09 20:10:00	17:00:00
365	<b>Shutdown</b>	07-Jul-09 08:00:00	
	<b>Startup</b>	08-Jul-09 19:10:00	35:10:00
366	<b>Shutdown</b>	11-Jul-09 09:10:00	
	<b>Startup</b>	11-Jul-09 10:30:00	1:20:00
367	<b>Shutdown</b>	12-Jul-09 08:00:00	
	<b>Startup</b>	12-Jul-09 23:10:00	15:10:00
368	<b>Shutdown</b>	20-Jul-09 21:50:00	
	<b>Startup</b>	21-Jul-09 20:10:00	22:20:00
369	<b>Shutdown</b>	23-Jul-09 03:20:00	
	<b>Startup</b>	23-Jul-09 15:10:00	11:50:00
370	<b>Shutdown</b>	27-Jul-09 11:10:00	
	<b>Startup</b>	27-Jul-09 22:40:00	11:30:00
371	<b>Shutdown</b>	29-Jul-09 15:40:00	
	<b>Startup</b>	30-Jul-09 00:50:00	9:10:00
372	<b>Shutdown</b>	30-Jul-09 19:50:00	
	<b>Startup</b>	31-Jul-09 19:00:00	23:10:00
373	<b>Shutdown</b>	01-Aug-09 20:10:00	
	<b>Startup</b>	02-Aug-09 10:40:00	14:30:00
374	<b>Shutdown</b>	04-Aug-09 20:00:00	
	<b>Startup</b>	05-Aug-09 14:30:00	18:30:00
375	<b>Shutdown</b>	06-Aug-09 07:10:00	

	<b>Startup</b>	07-Aug-09 08:10:00	25:00:00
376	<b>Shutdown</b>	09-Aug-09 10:10:00	
	<b>Startup</b>	09-Aug-09 11:20:00	1:10:00
377	<b>Shutdown</b>	09-Aug-09 18:50:00	
	<b>Startup</b>	09-Aug-09 20:00:00	1:10:00
378	<b>Shutdown</b>	13-Aug-09 01:10:00	
	<b>Startup</b>	13-Aug-09 09:10:00	8:00:00
379	<b>Shutdown</b>	13-Aug-09 21:00:00	
	<b>Startup</b>	15-Aug-09 11:00:00	38:00:00
380	<b>Shutdown</b>	19-Aug-09 03:50:00	
	<b>Startup</b>	20-Aug-09 05:20:00	25:30:00
381	<b>Shutdown</b>	23-Aug-09 22:30:00	
	<b>Startup</b>	24-Aug-09 08:00:00	9:30:00
382	<b>Shutdown</b>	30-Aug-09 22:10:00	
	<b>Startup</b>	30-Aug-09 22:50:00	0:40:00
383	<b>Shutdown</b>	31-Aug-09 06:20:00	
	<b>Startup</b>	31-Aug-09 15:00:00	8:40:00
384	<b>Shutdown</b>	03-Sep-09 07:20:00	
	<b>Startup</b>	03-Sep-09 08:20:00	1:00:00
385	<b>Shutdown</b>	08-Sep-09 14:30:00	
	<b>Startup</b>	08-Sep-09 15:50:00	1:20:00
386	<b>Shutdown</b>	12-Sep-09 07:30:00	
	<b>Startup</b>	13-Sep-09 08:10:00	24:40:00
387	<b>Shutdown</b>	15-Sep-09 02:00:00	
	<b>Startup</b>	15-Sep-09 15:10:00	13:10:00
388	<b>Shutdown</b>	16-Sep-09 02:20:00	
	<b>Startup</b>	17-Sep-09 03:20:00	25:00:00
389	<b>Shutdown</b>	18-Sep-09 17:50:00	
	<b>Startup</b>	19-Sep-09 09:10:00	15:20:00
390	<b>Shutdown</b>	20-Sep-09 02:00:00	
	<b>Startup</b>	20-Sep-09 14:10:00	12:10:00

391	<b>Shutdown</b>	22-Sep-09 18:40:00	
	<b>Startup</b>	23-Sep-09 10:50:00	16:10:00
392	<b>Shutdown</b>	25-Sep-09 03:10:00	
	<b>Startup</b>	26-Sep-09 03:10:00	24:00:00
393	<b>Shutdown</b>	26-Sep-09 22:00:00	
	<b>Startup</b>	27-Sep-09 02:50:00	4:50:00
394	<b>Shutdown</b>	28-Sep-09 05:20:00	
	<b>Startup</b>	28-Sep-09 05:50:00	0:30:00
395	<b>Shutdown</b>	29-Sep-09 11:10:00	
	<b>Startup</b>	29-Sep-09 19:10:00	8:00:00
396	<b>Shutdown</b>	30-Sep-09 13:40:00	
	<b>Startup</b>	30-Sep-09 23:10:00	9:30:00
397	<b>Shutdown</b>	01-Oct-09 15:50:00	
	<b>Startup</b>	02-Oct-09 01:40:00	9:50:00
398	<b>Shutdown</b>	04-Oct-09 15:40:00	
	<b>Startup</b>	04-Oct-09 22:00:00	6:20:00
399	<b>Shutdown</b>	05-Oct-09 21:00:00	
	<b>Startup</b>	07-Oct-09 17:40:00	44:40:00
400	<b>Shutdown</b>	08-Oct-09 09:50:00	
	<b>Startup</b>	08-Oct-09 10:50:00	1:00:00
401	<b>Shutdown</b>	09-Oct-09 09:20:00	
	<b>Startup</b>	10-Oct-09 01:10:00	15:50:00
402	<b>Shutdown</b>	10-Oct-09 18:40:00	
	<b>Startup</b>	11-Oct-09 19:40:00	25:00:00
403	<b>Shutdown</b>	13-Oct-09 15:10:00	
	<b>Startup</b>	15-Oct-09 05:10:00	38:00:00
404	<b>Shutdown</b>	16-Oct-09 04:00:00	
	<b>Startup</b>	16-Oct-09 17:10:00	13:10:00
405	<b>Shutdown</b>	17-Oct-09 13:50:00	
	<b>Startup</b>	17-Oct-09 16:30:00	2:40:00
406	<b>Shutdown</b>	20-Oct-09 15:00:00	
	<b>Startup</b>	20-Oct-09 19:50:00	4:50:00

407	<b>Shutdown</b>	21-Oct-09 12:10:00	
	<b>Startup</b>	21-Oct-09 23:00:00	10:50:00
408	<b>Shutdown</b>	22-Oct-09 08:00:00	
	<b>Startup</b>	23-Oct-09 07:10:00	23:10:00
409	<b>Shutdown</b>	24-Oct-09 15:00:00	
	<b>Startup</b>	27-Oct-09 04:10:00	61:10:00
410	<b>Shutdown</b>	31-Oct-09 02:50:00	
	<b>Startup</b>	01-Nov-09 07:10:00	28:20:00
411	<b>Shutdown</b>	01-Nov-09 19:30:00	
	<b>Startup</b>	02-Nov-09 07:10:00	11:40:00
412	<b>Shutdown</b>	03-Nov-09 09:10:00	
	<b>Startup</b>	03-Nov-09 10:20:00	1:10:00
413	<b>Shutdown</b>	04-Nov-09 04:30:00	
	<b>Startup</b>	06-Nov-09 03:00:00	46:30:00
414	<b>Shutdown</b>	09-Nov-09 11:40:00	
	<b>Startup</b>	10-Nov-09 07:10:00	19:30:00
415	<b>Shutdown</b>	12-Nov-09 05:00:00	
	<b>Startup</b>	12-Nov-09 17:10:00	12:10:00
416	<b>Shutdown</b>	13-Nov-09 11:40:00	
	<b>Startup</b>	13-Nov-09 12:00:00	0:20:00
417	<b>Shutdown</b>	16-Nov-09 05:00:00	
	<b>Startup</b>	16-Nov-09 05:40:00	0:40:00
418	<b>Shutdown</b>	19-Nov-09 08:30:00	
	<b>Startup</b>	20-Nov-09 01:50:00	17:20:00
419	<b>Shutdown</b>	20-Nov-09 14:00:00	
	<b>Startup</b>	20-Nov-09 22:30:00	8:30:00
420	<b>Shutdown</b>	20-Nov-09 23:00:00	
	<b>Startup</b>	21-Nov-09 01:10:00	2:10:00
421	<b>Shutdown</b>	21-Nov-09 07:50:00	
	<b>Startup</b>	21-Nov-09 16:00:00	8:10:00
422	<b>Shutdown</b>	22-Nov-09 08:10:00	

	<b>Startup</b>	22-Nov-09 11:40:00	3:30:00
423	<b>Shutdown</b>	24-Nov-09 01:20:00	
	<b>Startup</b>	24-Nov-09 01:40:00	0:20:00
424	<b>Shutdown</b>	26-Nov-09 20:20:00	
	<b>Startup</b>	28-Nov-09 07:00:00	34:40:00
425	<b>Shutdown</b>	01-Dec-09 19:00:00	
	<b>Startup</b>	01-Dec-09 19:30:00	0:30:00
426	<b>Shutdown</b>	05-Dec-09 22:50:00	
	<b>Startup</b>	05-Dec-09 23:20:00	0:30:00
427	<b>Shutdown</b>	06-Dec-09 01:50:00	
	<b>Startup</b>	06-Dec-09 02:20:00	0:30:00
428	<b>Shutdown</b>	11-Dec-09 14:00:00	
	<b>Startup</b>	11-Dec-09 18:40:00	4:40:00
429	<b>Shutdown</b>	11-Dec-09 19:00:00	
	<b>Startup</b>	11-Dec-09 21:50:00	2:50:00
430	<b>Shutdown</b>	12-Dec-09 18:40:00	
	<b>Startup</b>	13-Dec-09 04:00:00	9:20:00
431	<b>Shutdown</b>	17-Dec-09 03:30:00	
	<b>Startup</b>	18-Dec-09 03:10:00	23:40:00
432	<b>Shutdown</b>	20-Dec-09 06:10:00	
	<b>Startup</b>	20-Dec-09 10:00:00	3:50:00
433	<b>Shutdown</b>	21-Dec-09 17:10:00	
	<b>Startup</b>	23-Dec-09 12:10:00	43:00:00
434	<b>Shutdown</b>	25-Dec-09 09:20:00	
	<b>Startup</b>	25-Dec-09 09:50:00	0:30:00
435	<b>Shutdown</b>	31-Dec-09 19:00:00	
	<b>Startup</b>	02-Jan-10 17:10:00	46:10:00
436	<b>Shutdown</b>	08-Jan-10 11:00:00	
	<b>Startup</b>	08-Jan-10 11:10:00	0:10:00
437	<b>Shutdown</b>	10-Jan-10 10:10:00	
	<b>Startup</b>	11-Jan-10 04:20:00	18:10:00

438	<b>Shutdown</b>	14-Jan-10 06:00:00	
	<b>Startup</b>	15-Jan-10 03:10:00	21:10:00
439	<b>Shutdown</b>	20-Jan-10 16:00:00	
	<b>Startup</b>	21-Jan-10 15:10:00	23:10:00
440	<b>Shutdown</b>	25-Jan-10 13:00:00	
	<b>Startup</b>	25-Jan-10 16:40:00	3:40:00
441	<b>Shutdown</b>	28-Jan-10 03:40:00	
	<b>Startup</b>	29-Jan-10 13:30:00	33:50:00
442	<b>Shutdown</b>	30-Jan-10 10:40:00	
	<b>Startup</b>	31-Jan-10 01:10:00	14:30:00
443	<b>Shutdown</b>	01-Feb-10 19:10:00	
	<b>Startup</b>	03-Feb-10 08:10:00	37:00:00
444	<b>Shutdown</b>	04-Feb-10 23:50:00	
	<b>Startup</b>	05-Feb-10 19:10:00	19:20:00
445	<b>Shutdown</b>	07-Feb-10 04:10:00	
	<b>Startup</b>	07-Feb-10 21:10:00	17:00:00
446	<b>Shutdown</b>	09-Feb-10 06:50:00	
	<b>Startup</b>	09-Feb-10 07:20:00	0:30:00
447	<b>Shutdown</b>	11-Feb-10 23:40:00	
	<b>Startup</b>	12-Feb-10 00:10:00	0:30:00
448	<b>Shutdown</b>	12-Feb-10 19:20:00	
	<b>Startup</b>	12-Feb-10 20:10:00	0:50:00
449	<b>Shutdown</b>	19-Feb-10 04:40:00	
	<b>Startup</b>	19-Feb-10 11:20:00	6:40:00
450	<b>Shutdown</b>	20-Feb-10 03:50:00	
	<b>Startup</b>	20-Feb-10 06:40:00	2:50:00
451	<b>Shutdown</b>	21-Feb-10 01:10:00	
	<b>Startup</b>	21-Feb-10 09:10:00	8:00:00
452	<b>Shutdown</b>	23-Feb-10 05:20:00	
	<b>Startup</b>	23-Feb-10 13:10:00	7:50:00
453	<b>Shutdown</b>	25-Feb-10 04:20:00	
	<b>Startup</b>	25-Feb-10 20:10:00	15:50:00

454	<b>Shutdown</b>	28-Feb-10 16:50:00	
	<b>Startup</b>	01-Mar-10 03:10:00	10:20:00
455	<b>Shutdown</b>	02-Mar-10 21:00:00	
	<b>Startup</b>	04-Mar-10 15:30:00	42:30:00
456	<b>Shutdown</b>	05-Mar-10 12:00:00	
	<b>Startup</b>	05-Mar-10 16:30:00	4:30:00
457	<b>Shutdown</b>	08-Mar-10 22:30:00	
	<b>Startup</b>	09-Mar-10 16:00:00	17:30:00
458	<b>Shutdown</b>	13-Mar-10 04:50:00	
	<b>Startup</b>	13-Mar-10 16:50:00	12:00:00
459	<b>Shutdown</b>	17-Mar-10 08:00:00	
	<b>Startup</b>	17-Mar-10 23:10:00	15:10:00
460	<b>Shutdown</b>	18-Mar-10 22:10:00	
	<b>Startup</b>	19-Mar-10 22:40:00	24:30:00
461	<b>Shutdown</b>	20-Mar-10 17:10:00	
	<b>Startup</b>	20-Mar-10 17:30:00	0:20:00
462	<b>Shutdown</b>	21-Mar-10 13:10:00	
	<b>Startup</b>	21-Mar-10 14:20:00	1:10:00
463	<b>Shutdown</b>	21-Mar-10 22:40:00	
	<b>Startup</b>	22-Mar-10 15:10:00	16:30:00
464	<b>Shutdown</b>	29-Mar-10 17:40:00	
	<b>Startup</b>	01-Apr-10 05:30:00	59:50:00
465	<b>Shutdown</b>	03-Apr-10 01:50:00	
	<b>Startup</b>	03-Apr-10 03:50:00	2:00:00
466	<b>Shutdown</b>	08-Apr-10 07:40:00	
	<b>Startup</b>	08-Apr-10 13:10:00	5:30:00
467	<b>Shutdown</b>	11-Apr-10 19:30:00	
	<b>Startup</b>	11-Apr-10 20:50:00	1:20:00
468	<b>Shutdown</b>	12-Apr-10 11:40:00	
	<b>Startup</b>	14-Apr-10 02:30:00	38:50:00
469	<b>Shutdown</b>	14-Apr-10 08:00:00	

	<b>Startup</b>	14-Apr-10 09:30:00	1:30:00
470	<b>Shutdown</b>	18-Apr-10 09:00:00	
	<b>Startup</b>	18-Apr-10 19:00:00	10:00:00
471	<b>Shutdown</b>	20-Apr-10 11:00:00	
	<b>Startup</b>	20-Apr-10 21:00:00	10:00:00
472	<b>Shutdown</b>	22-Apr-10 01:40:00	
	<b>Startup</b>	22-Apr-10 02:00:00	0:20:00
473	<b>Shutdown</b>	23-Apr-10 01:20:00	
	<b>Startup</b>	23-Apr-10 03:10:00	1:50:00
474	<b>Shutdown</b>	23-Apr-10 07:40:00	
	<b>Startup</b>	23-Apr-10 21:00:00	13:20:00
475	<b>Shutdown</b>	25-Apr-10 08:50:00	
	<b>Startup</b>	25-Apr-10 17:50:00	9:00:00
476	<b>Shutdown</b>	26-Apr-10 20:30:00	
	<b>Startup</b>	26-Apr-10 20:40:00	0:10:00
477	<b>Shutdown</b>	27-Apr-10 07:00:00	
	<b>Startup</b>	27-Apr-10 07:20:00	0:20:00
478	<b>Shutdown</b>	27-Apr-10 09:00:00	
	<b>Startup</b>	27-Apr-10 19:10:00	10:10:00
479	<b>Shutdown</b>	28-Apr-10 08:00:00	
	<b>Startup</b>	28-Apr-10 09:10:00	1:10:00
480	<b>Shutdown</b>	06-May-10 20:10:00	
	<b>Startup</b>	06-May-10 20:40:00	0:30:00
481	<b>Shutdown</b>	10-May-10 04:10:00	
	<b>Startup</b>	12-May-10 04:30:00	48:20:00
482	<b>Shutdown</b>	12-May-10 21:20:00	
	<b>Startup</b>	13-May-10 02:30:00	5:10:00
483	<b>Shutdown</b>	17-May-10 09:20:00	
	<b>Startup</b>	17-May-10 10:00:00	0:40:00
484	<b>Shutdown</b>	18-May-10 16:10:00	
	<b>Startup</b>	18-May-10 18:00:00	1:50:00



485	<b>Shutdown</b>	23-May-10 13:50:00	
	<b>Startup</b>	23-May-10 15:40:00	1:50:00
486	<b>Shutdown</b>	24-May-10 12:10:00	
	<b>Startup</b>	24-May-10 12:50:00	0:40:00
487	<b>Shutdown</b>	31-May-10 03:10:00	
	<b>Startup</b>	31-May-10 03:20:00	0:10:00
488	<b>Shutdown</b>	01-Jun-10 04:50:00	
	<b>Startup</b>	01-Jun-10 11:50:00	7:00:00
489	<b>Shutdown</b>	09-Jun-10 01:10:00	
	<b>Startup</b>	09-Jun-10 07:10:00	6:00:00
490	<b>Shutdown</b>	09-Jun-10 19:20:00	
	<b>Startup</b>	09-Jun-10 21:30:00	2:10:00
491	<b>Shutdown</b>	10-Jun-10 04:50:00	
	<b>Startup</b>	10-Jun-10 05:50:00	1:00:00
492	<b>Shutdown</b>	11-Jun-10 14:10:00	
	<b>Startup</b>	12-Jun-10 01:40:00	11:30:00
493	<b>Shutdown</b>	12-Jun-10 22:10:00	
	<b>Startup</b>	13-Jun-10 01:30:00	3:20:00
494	<b>Shutdown</b>	15-Jun-10 07:00:00	
	<b>Startup</b>	15-Jun-10 19:10:00	12:10:00
495	<b>Shutdown</b>	16-Jun-10 07:00:00	
	<b>Startup</b>	16-Jun-10 19:00:00	12:00:00
496	<b>Shutdown</b>	17-Jun-10 06:10:00	
	<b>Startup</b>	17-Jun-10 18:00:00	11:50:00
497	<b>Shutdown</b>	18-Jun-10 06:00:00	
	<b>Startup</b>	19-Jun-10 05:50:00	23:50:00
498	<b>Shutdown</b>	20-Jun-10 06:30:00	
	<b>Startup</b>	20-Jun-10 19:10:00	12:40:00
499	<b>Shutdown</b>	06-Jul-10 08:20:00	
	<b>Startup</b>	06-Jul-10 13:30:00	5:10:00
500	<b>Shutdown</b>	09-Jul-10 04:10:00	
	<b>Startup</b>	09-Jul-10 05:50:00	1:40:00

501	<b>Shutdown</b>	09-Jul-10 07:40:00	
	<b>Startup</b>	09-Jul-10 08:00:00	0:20:00
502	<b>Shutdown</b>	12-Jul-10 07:20:00	
	<b>Startup</b>	12-Jul-10 15:40:00	8:20:00
503	<b>Shutdown</b>	12-Jul-10 23:10:00	
	<b>Startup</b>	13-Jul-10 01:10:00	2:00:00
504	<b>Shutdown</b>	13-Jul-10 05:00:00	
	<b>Startup</b>	13-Jul-10 22:00:00	17:00:00
505	<b>Shutdown</b>	14-Jul-10 05:20:00	
	<b>Startup</b>	14-Jul-10 15:20:00	10:00:00
506	<b>Shutdown</b>	17-Jul-10 15:00:00	
	<b>Startup</b>	17-Jul-10 18:10:00	3:10:00
507	<b>Shutdown</b>	20-Jul-10 16:30:00	
	<b>Startup</b>	20-Jul-10 17:50:00	1:20:00
508	<b>Shutdown</b>	21-Jul-10 11:00:00	
	<b>Startup</b>	21-Jul-10 11:30:00	0:30:00
509	<b>Shutdown</b>	22-Jul-10 23:30:00	
	<b>Startup</b>	23-Jul-10 00:40:00	1:10:00
510	<b>Shutdown</b>	24-Jul-10 14:50:00	
	<b>Startup</b>	24-Jul-10 17:00:00	2:10:00
511	<b>Shutdown</b>	25-Jul-10 16:00:00	
	<b>Startup</b>	26-Jul-10 02:10:00	10:10:00
512	<b>Shutdown</b>	26-Jul-10 03:10:00	
	<b>Startup</b>	26-Jul-10 05:30:00	2:20:00
513	<b>Shutdown</b>	26-Jul-10 06:00:00	
	<b>Startup</b>		

## z) Critical Field Communications Protocol

In the event that pipeline conditions require ongoing non-routine communications between the field and the Control Centre:

- develop a site specific communications plan with on-site personnel
- test incoming and outgoing voice communications
- maintain and/or adjust communications plan for the duration of the non-routine conditions

For Mainline Project Integrity Dig Sites (coordinated by a Dig Execution Coordinator):

- ensure that contact is established with the Dig Execution Coordinator prior to the commencement of work
- confirm contact information on the Weekly Field Work Approval with the Dig Execution Coordinator and confirm the communications plan
- maintain and/or adjust communications plan for the duration of the work

If communication with the Dig Execution Coordinator cannot be established:

- Contact the alternate emergency communication contacts provided on the Weekly Field Work Approval

### Related Topics:

[Temporary Pressure Restrictions](#)

[Field Request for Pipeline Maintenance](#)

*[Guidelines for Integrity Dig Field Work Approval and Communication](#)*

### ▼ Modification History

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Created By:	Jim S Johnston	Modifier:	Jim S Johnston
Created At:	05/18/99 01:58:25 PM	Last Update:	01/06/2012 06:45:33 PM
Reason for Change:	added Canadian digs and alternate contacts		

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## f) Temporary Pipeline Pressure Restrictions

To ensure the pipeline is protected from pressure violation during operations where temporary pressure restrictions are imposed:

Pipeline Operator:

Before the restrictions take effect:

- Verify that line pressures are in compliance with the restricted pressure values as issued by the Control Center Engineers
- Set pressure warnings and station alert in PCS
- Execute the Critical Field Communications procedure

During the restricted operation:

If the pressure is suspected or confirmed to have exceeded the temporary restriction:

1. Execute the Suspected Pipeline Overpressure procedure.

Related Topics:

Field Request for Pipeline Maintenance

### Modification History

Created By:	Jim S Johnston	Modifier:	Melissa Marshall
Created At:	05/18/99 01:58:25 PM	Last Update:	11/09/2010 11:16:12 AM
Reason for Change:	contextual		

## e) Field Request for Pipeline Maintenance

If field personnel or a Dig Execution Coordinator request permission to conduct maintenance: Identify the type of work that will occur. If it requires a temporary pipeline pressure restriction, restriction of commodity during work, or will cause a reduction in capacity:

1. Confirm receipt of a Field Work Request from Control Centre Engineers prior to work commencing.
  - Mainline Integrity Dig information and applicable restrictions are specified in Weekly Field Work Approvals (one per pipeline)

If temporary pipeline pressure restrictions are in effect during maintenance:

- Execute the Temporary Pressure Restrictions procedure.

If temporary pipeline pressure restrictions are not in effect during maintenance:

- Execute the Critical Field Communications procedure.

If pipeline maintenance involves welding on the mainline, (with or without pressure restrictions), and steady pressures cannot be maintained at the welding location (ie: line upset, line startup, line shutdown):

- Contact the personnel conducting welding in area. Field personnel to determine if suspension of work is required.

For Mainline Project Integrity Dig Sites (coordinated by a Dig Execution Coordinator):

- Contact the Dig Execution Coordinator using the contact information on the Weekly Field Work Approval
- Provide a brief description of the situation
- The Dig Execution Coordinator will contact field personnel

If communication with the Dig Execution Coordinator cannot be established:

- Contact the alternate emergency communication contacts provided on the Weekly Field Work Approval

### Related Topics:

[Guidelines for Integrity Dig Field Work Approval and Communication](#)

[Weekly Dig Field Work Request Instructions](#)

[O&MP Book 3: Pipeline Facilities 01-02-03 Field Work Request](#)

### Modification History

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Created By:	Jim S Johnston	Modifier:	Jim S Johnston
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Reason for Change:	included Canadian digs and alternate contacts		

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**Purpose**

To outline protocols for timely communication of upcoming outages and field maintenance work that may impact the operating capacity of the pipeline.

**Responsibilities**

**Construction/Maintenance Sponsor (Operations, Engineering, Pipeline Integrity, etc)**

The Construction/Maintenance Sponsor is responsible for:

- submitting an outage estimate in the Capacity Restrictions Database by the 1<sup>st</sup> day of the month before the upcoming month's work for work with significant throughput implications,
- communicating the approval of the requested capacity restriction to the Operations Representative accountable for the work, and
- Revising/re-entering capacity restriction database entries, as necessary.

**Operations Representative Accountable for the Work**

The Operations Representative Accountable for the Work (Operations Rep) is responsible for:

- reviewing and approving the capacity restriction estimate (e.g., station outage, station bypass, station isolation or line shutdown),
- submitting a Field Work Request (FWR) by the 25th day of the month before the upcoming month's work, for example:
  - pressure transmitter outage,
  - tool run,
  - unit outage,
  - station outage,
  - station bypass or isolation,
  - line shutdown,
  - pipeline control system (PCS) outage,
  - sectionalizing valve maintenance,
  - mainline welding,
  - any work that requires a pressure restriction,
  - tank outages,
  - terminal outages and
  - integrity digs, and
- revising/re-entering FWRs, as required.

**Control Center**

The control center is responsible for:

- reviewing and approving capacity restriction request or FWR based on:
  - impact on operating capacity of the line,
  - mitigating actions to minimize throughput loss, and
  - schedule for the work.

### ***Control Center Engineer***

The control center engineer is responsible for:

- communicating approval of requested capacity restrictions with the requesting Construction/Maintenance Sponsor, and
- communicating approval of all FWRs to the requesting Operations Rep.

## **Requirements**

Work that has not been communicated using the process outlined (i.e., submittal of the capacity restriction and/or FWR within the times outlines) may not be approved for the requested date and time. If such work cannot be coordinated with other scheduled maintenance, submit the work as per the process outlined.

Minor maintenance activities that will not impact operating capacity or system operability will not require either a capacity restriction database entry or a FWR and should be coordinated directly between the control center operator and the Operations Rep.

If there is uncertainty about the throughput impact of the identified work, the Construction/ Maintenance Sponsor or the Operations Rep should consult the control center engineer directly to discuss applicable requirements.

### **Emergency Work**

A FWR is not required for emergency work. Communicate emergency work directly with the control center operator.

### **Extended Tank Maintenance**

For removing a tank from service for a period of time greater than 24 hours (e.g., API inspection), the Operations Rep must contact Shipper Services and submit a tank outage FWR at least 2 months before the work.

Updates on the progress of the work must be provided to Shipper Services at least monthly (for shorter tank repair projects, start updating a month before the original scheduled return to service date or when the schedule changes).

For returning a tank to service, the Operations Rep must notify Shipper Services and submit a tank return to service FWR at least 2 weeks before tank return.

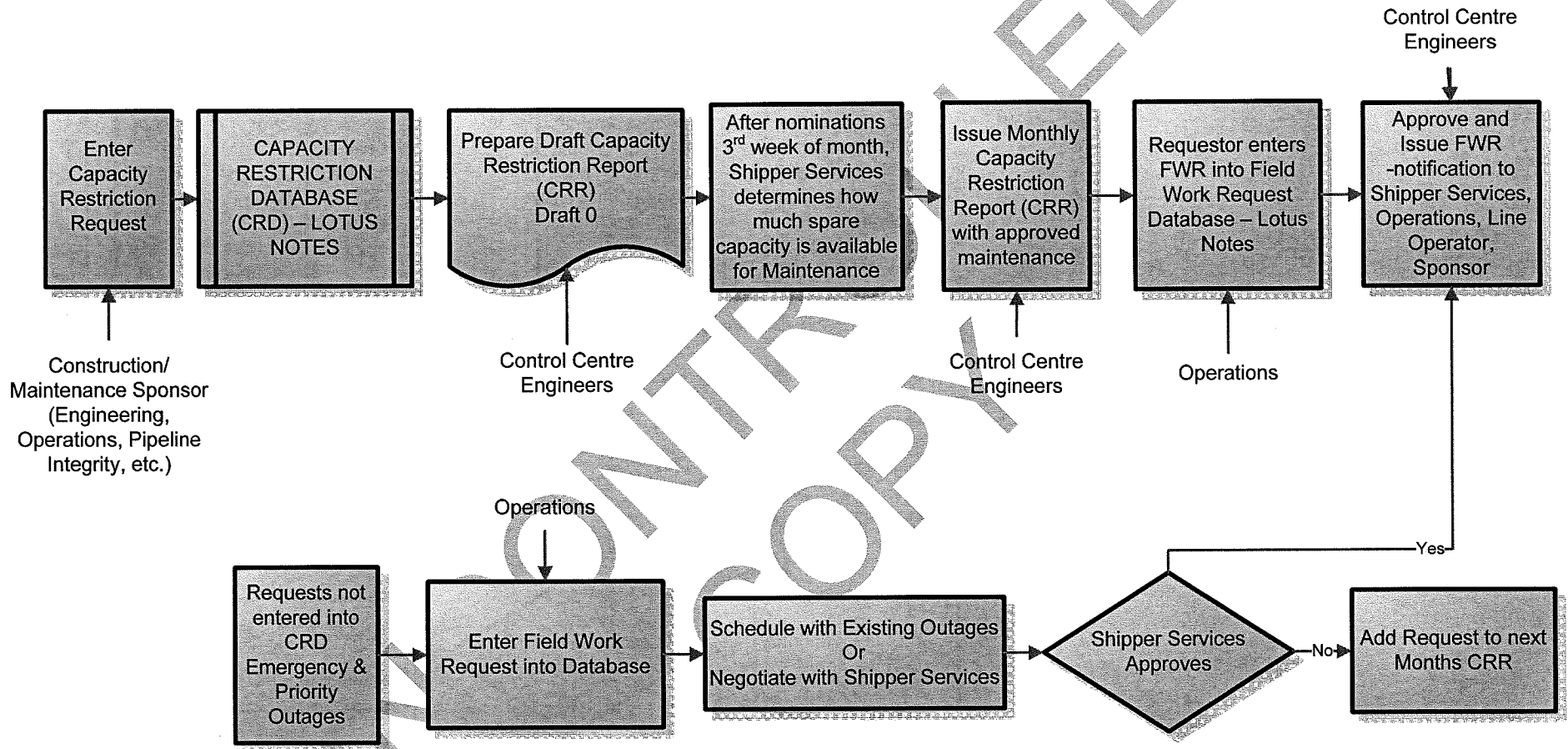


Figure 1  
Capacity Restriction and Field Work Request Process