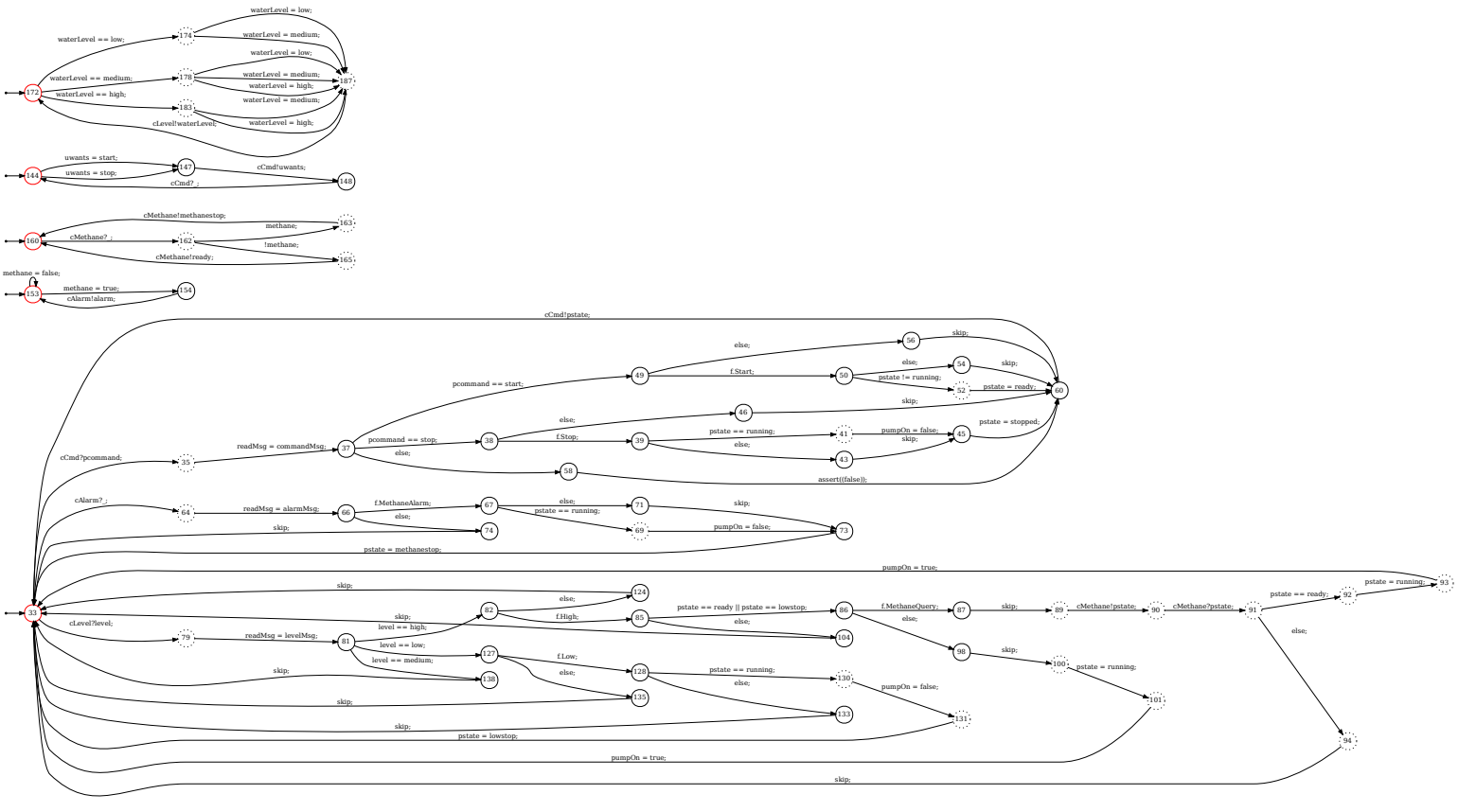
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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
60
49
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
skip;
45
pstate = stopped;
38
else;
f.Stop;
39
pstate == running;
else;
43
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
133
131
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
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skip;
100
pstate = running;
101
94
pstate == ready;
92
pstate = running;
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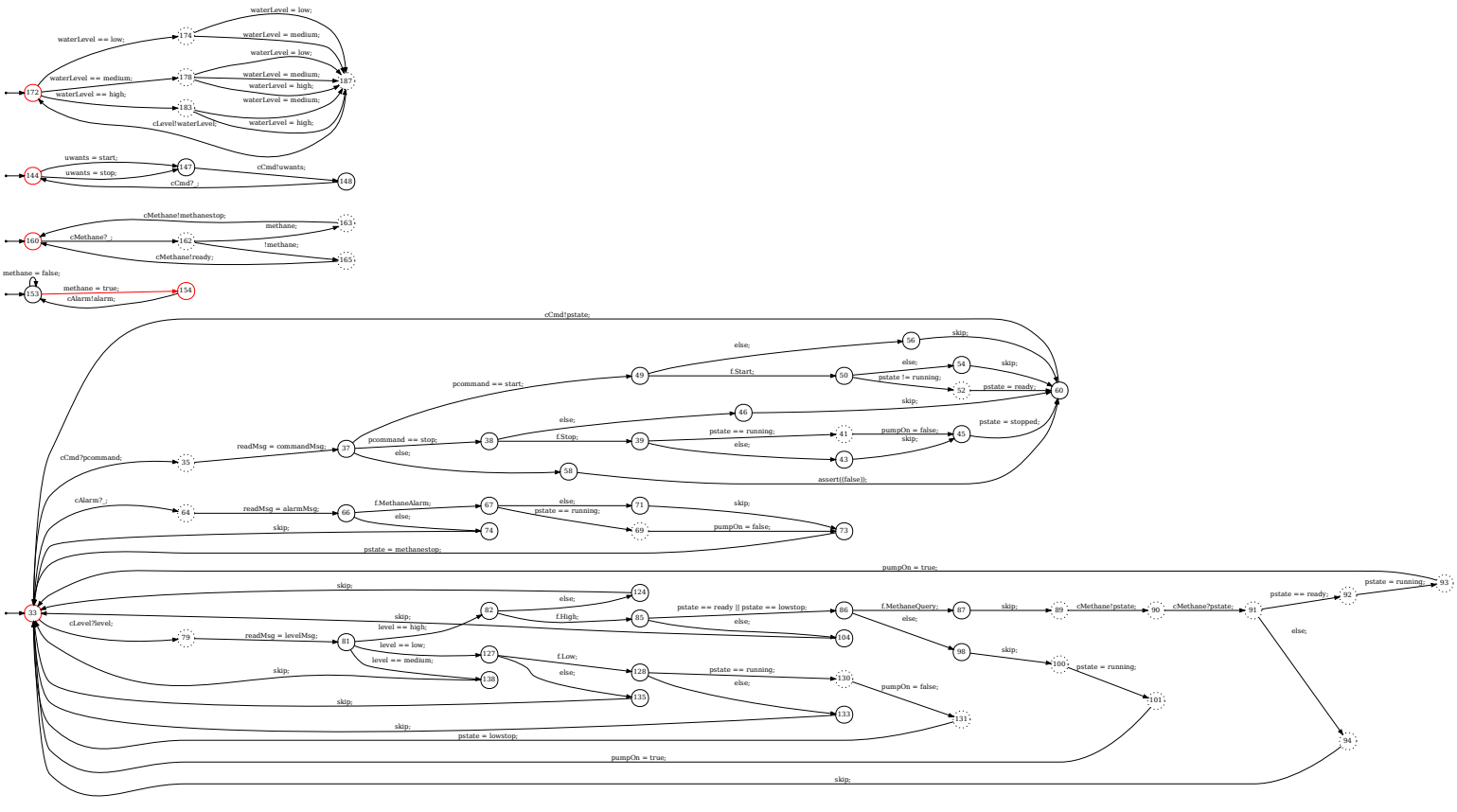
pumpOn = true;
skip;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waterLevel = low;
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waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
49
f.Start;
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
39
41
45
pstate = stopped;
f.Stop;
pstate == running;
pumpOn = false;
skip;
else;
43
else;
35
37
58
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
assert((false));
64
66
67
71
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
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else;
pstate == running;
skip;
74
69
73
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pumpOn = false;
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pumpOn = true;
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124
else;
82
85
86
87
89
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91
92
93
33
skip;
f.High;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
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else;
cLevel?level;
79
readMsg = levelMsg;
81
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104
else;
98
100
skip;
pstate = running;
level == low;
127
f.Low;
128
pstate == running;
130
101
level == medium;
else;
else;
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skip;
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skip;
pstate = lowstop;
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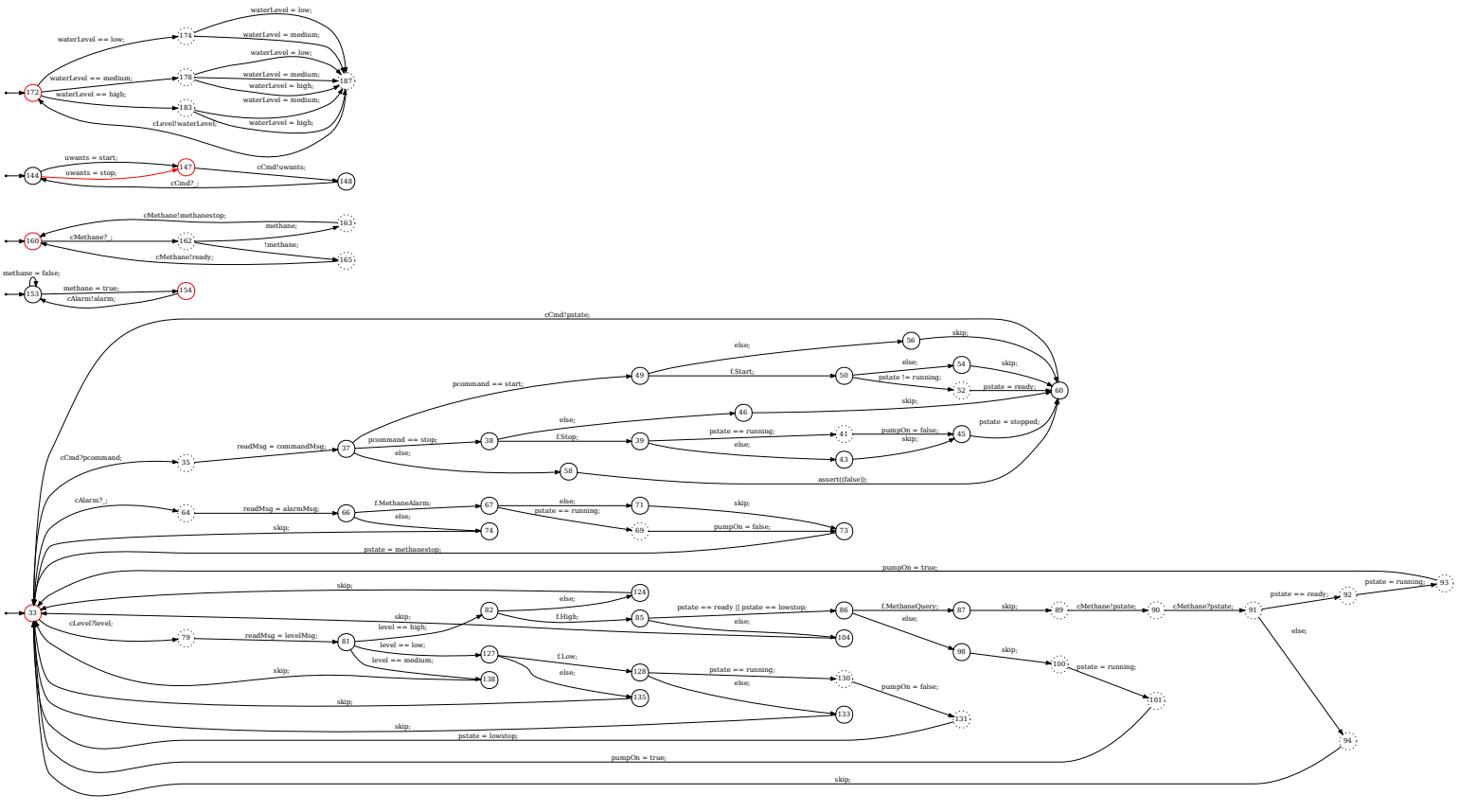
pumpOn = true;
skip;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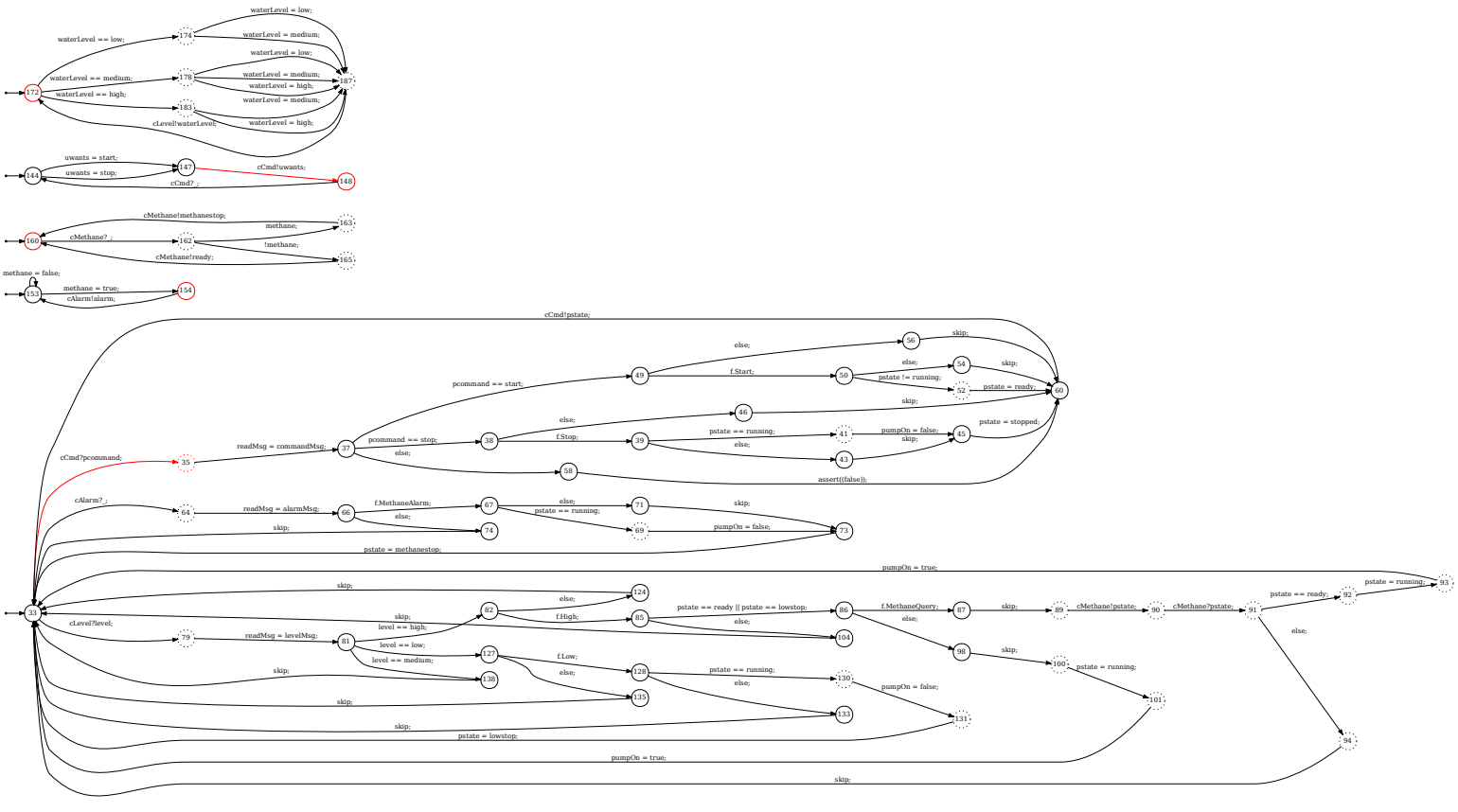
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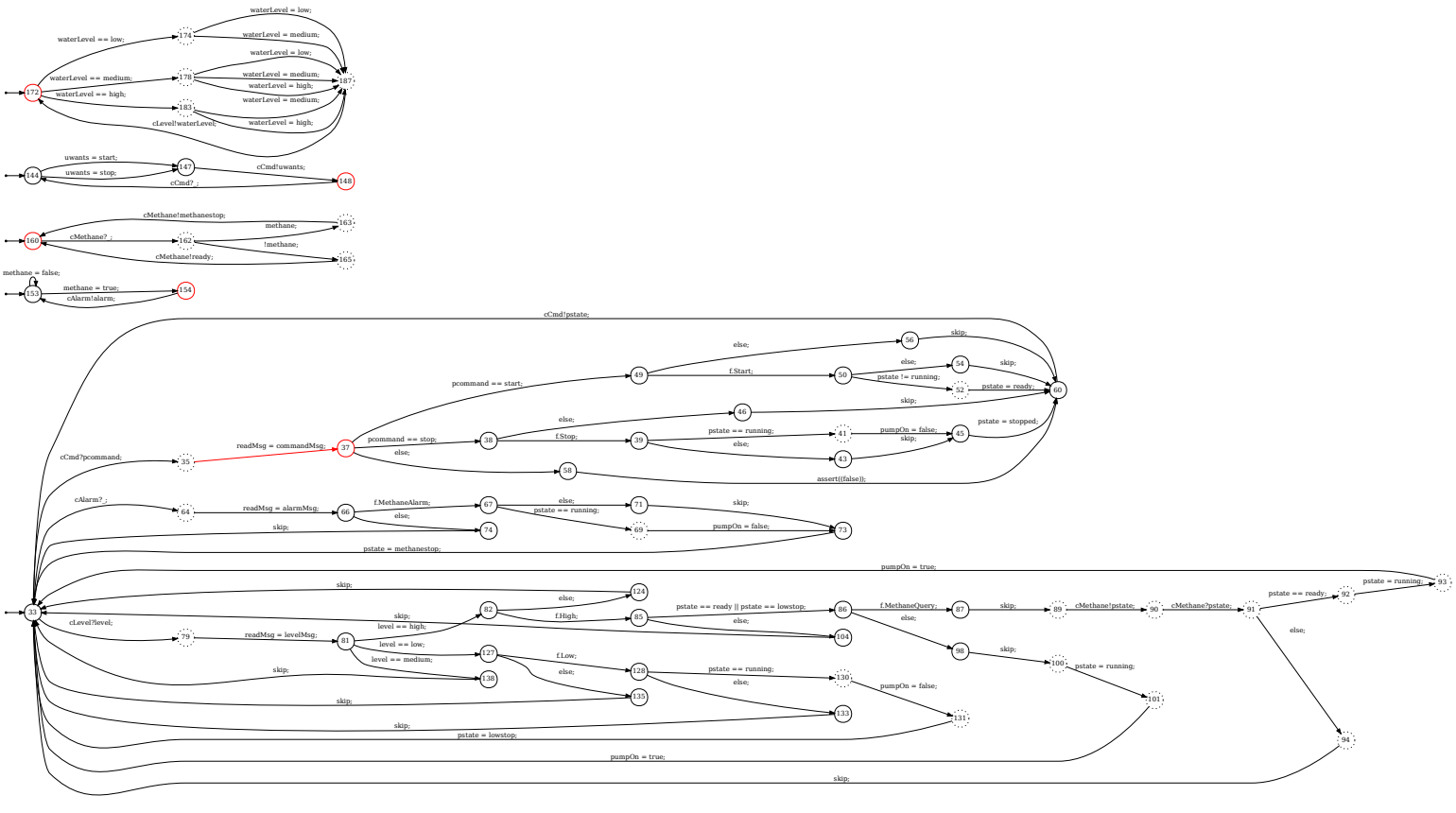
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else;
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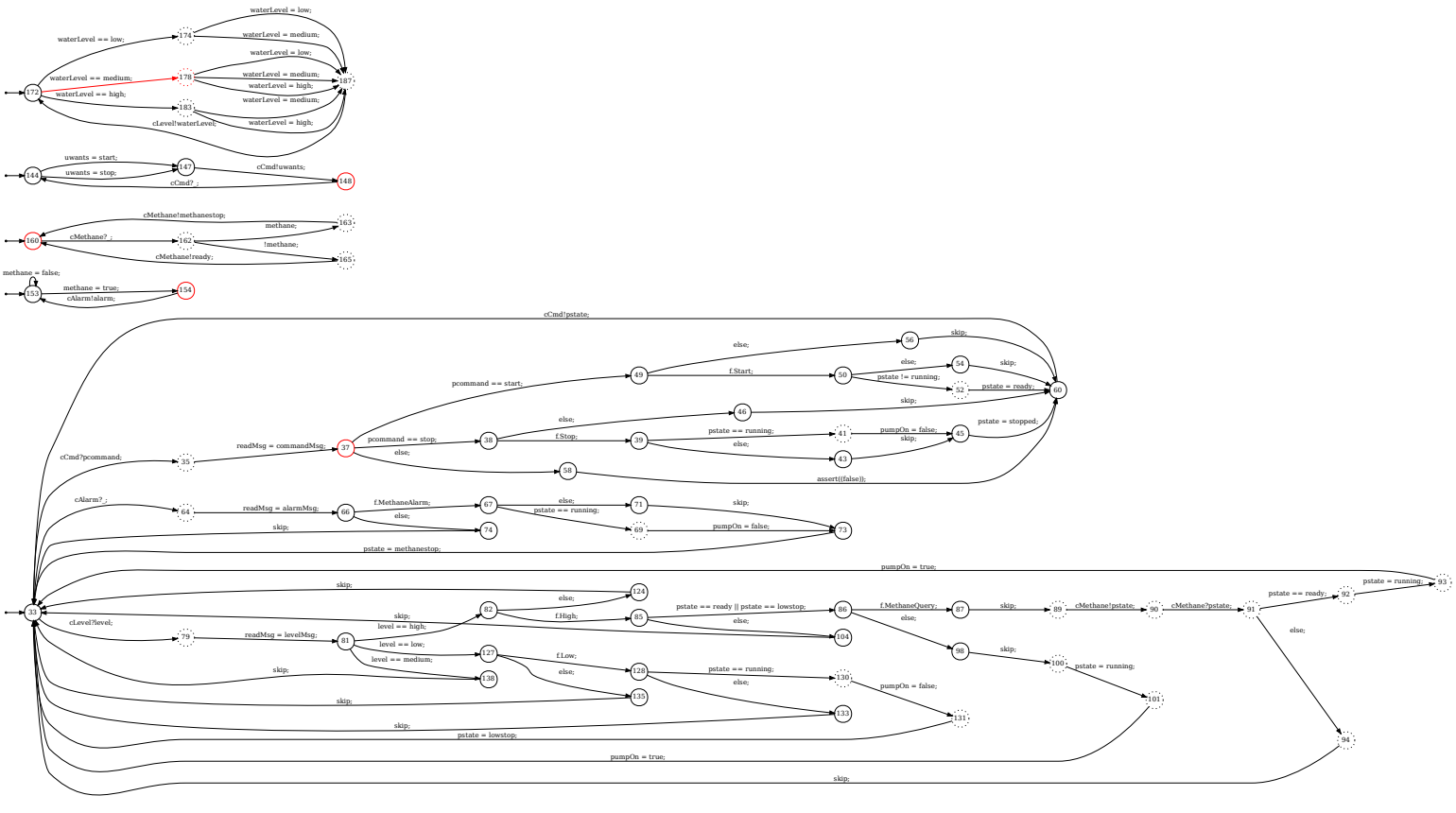
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waterLevel == low;
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waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
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144
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cMethane!ready;
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37
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60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
64
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
79
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124
127
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133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
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f.MethaneQuery;
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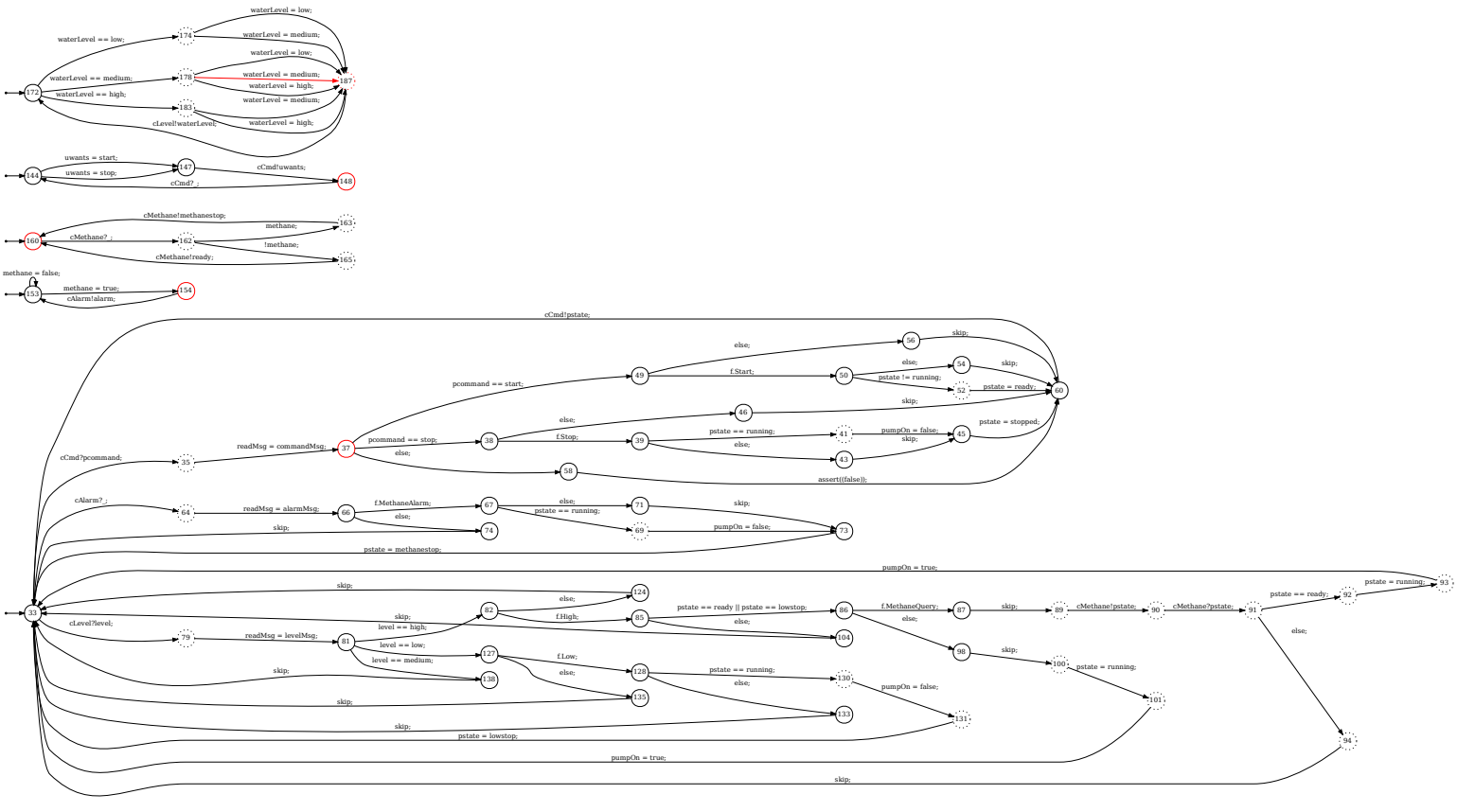
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel = high;
waterLevel == high;
waterLevel = medium;
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pstate = ready;
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pstate = stopped;
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else;
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38
f.Stop;
39
else;
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assert((false));
cCmd?pcommand;
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pcommand == stop;
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cAlarm? ;
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pstate = lowstop;
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86
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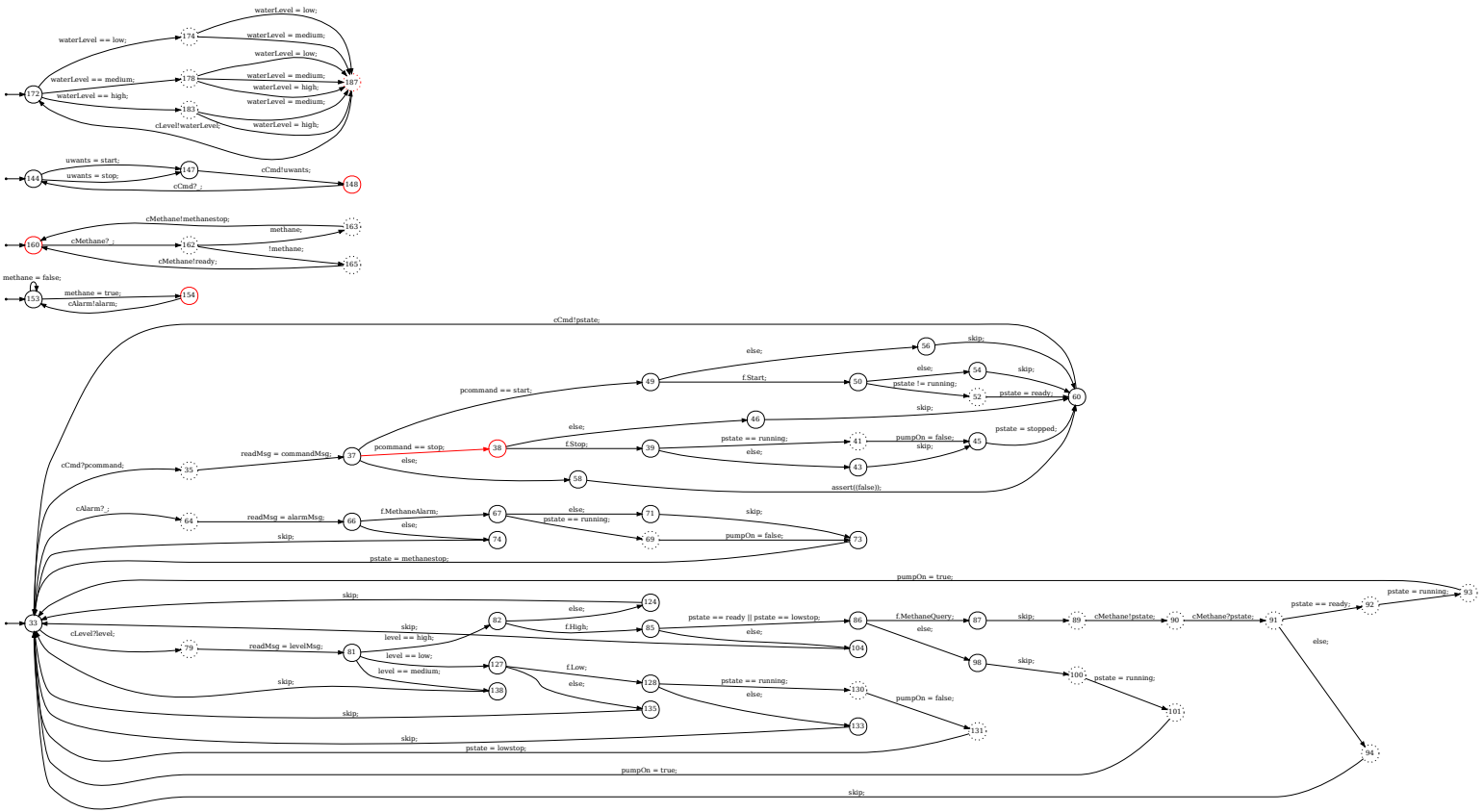
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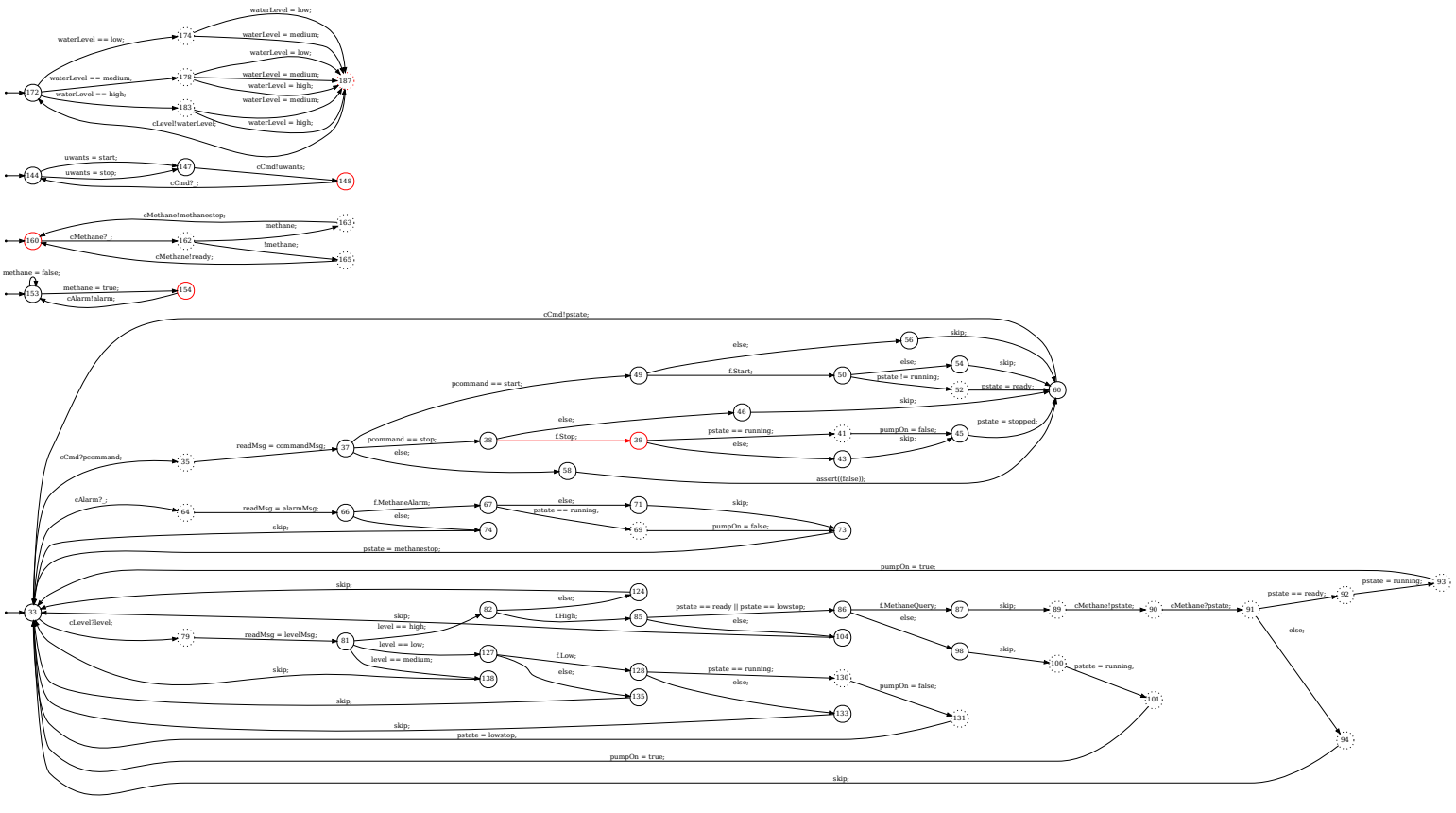
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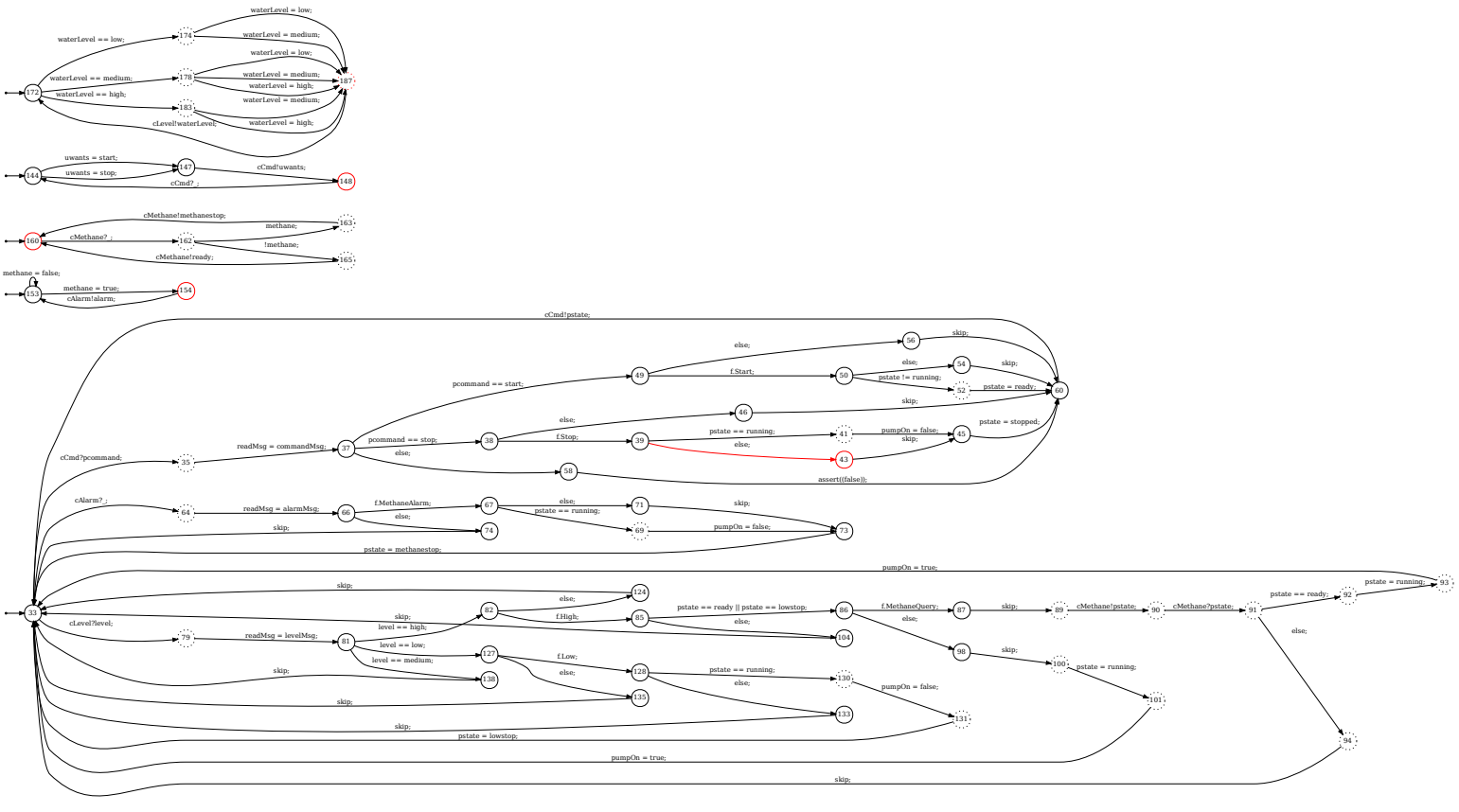
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methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
79
81
82
85
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91
92
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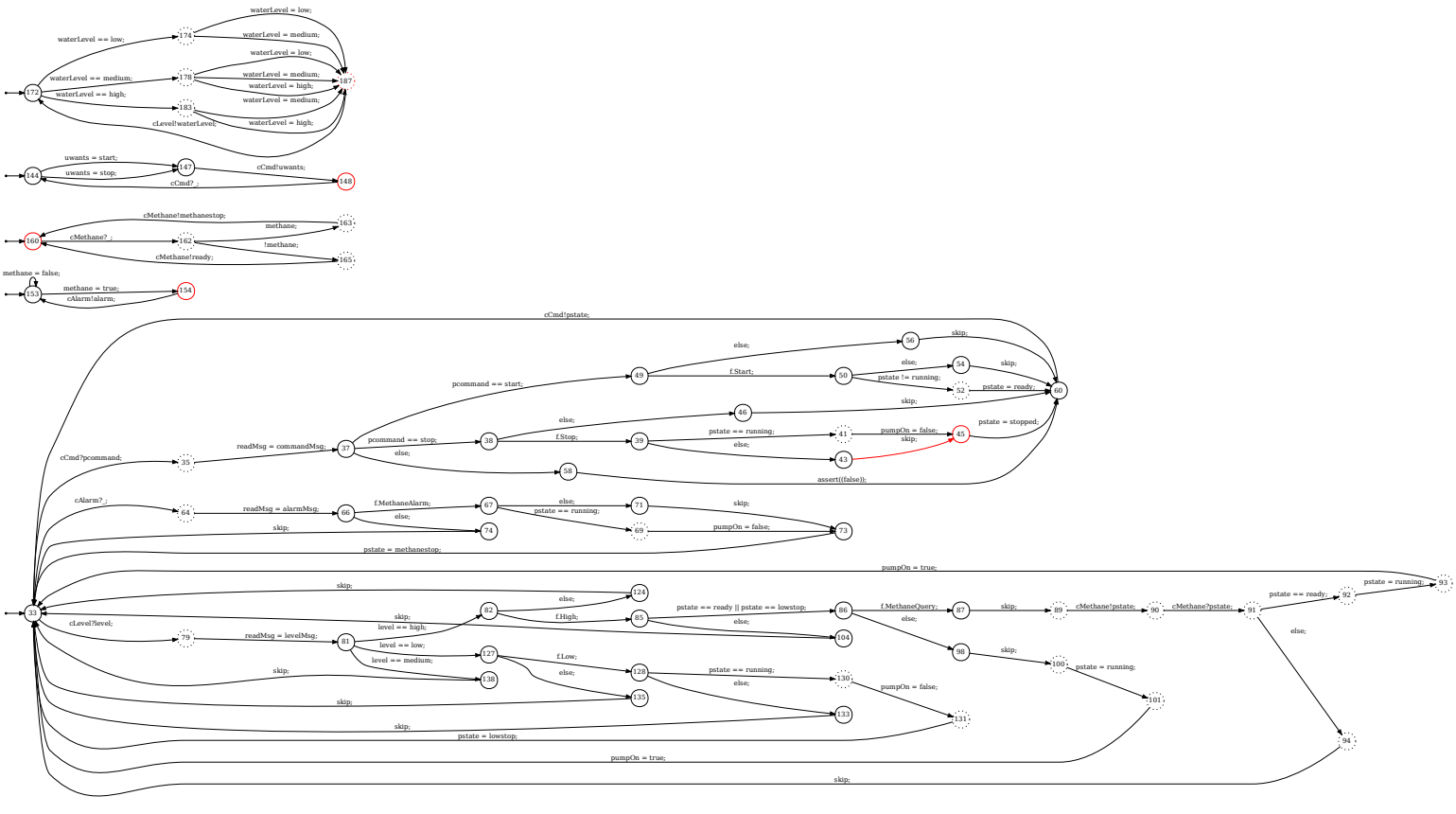
94
98
100
101
104
124
127
128
130
131
133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
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waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
49
f.Start;
50
else;
54
skip;
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == running;
else;
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skip;
pstate = lowstop;
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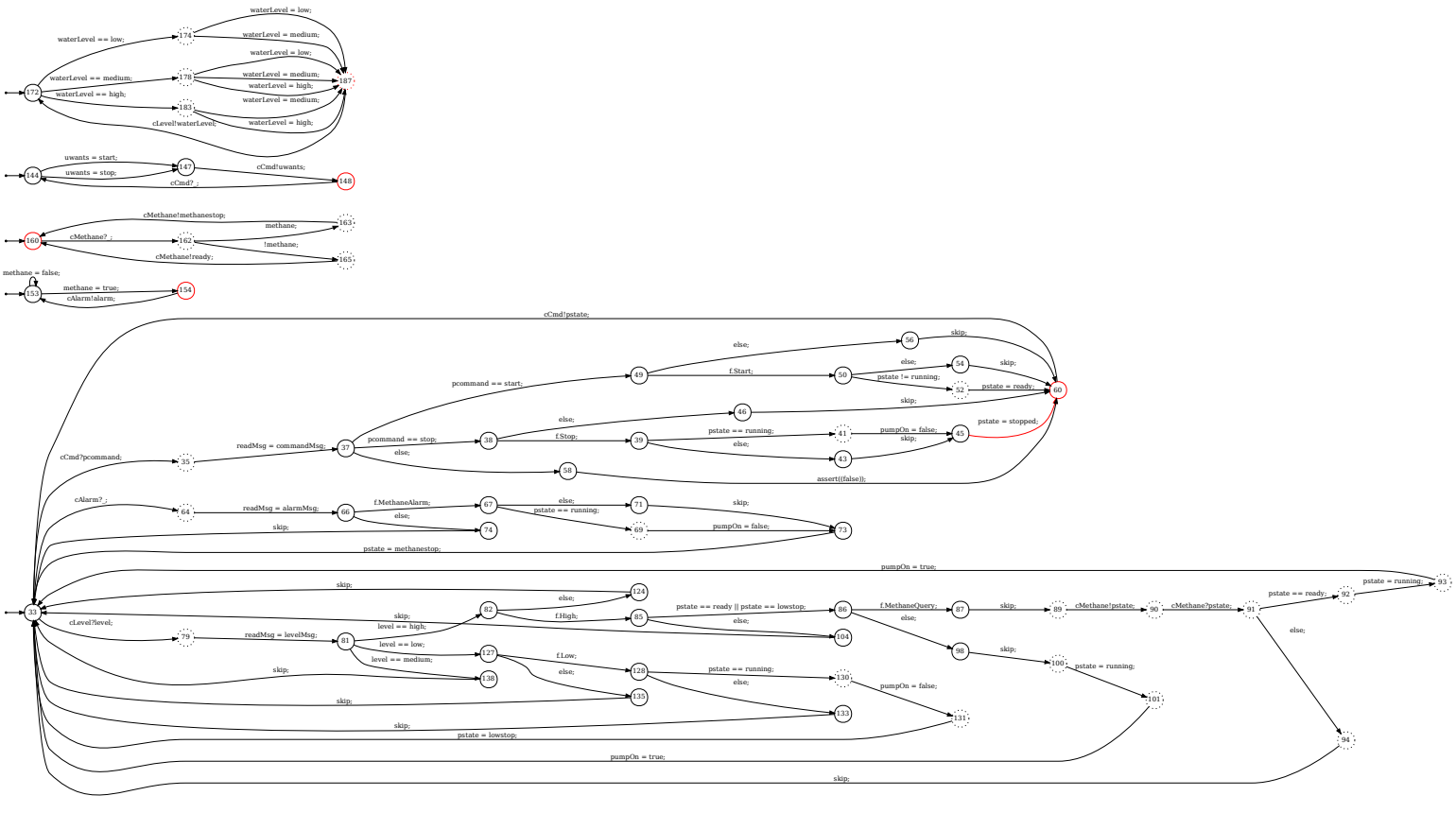
skip;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waterLevel = medium;
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waterLevel == high;
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
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skip;
pstate = methanestop;
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skip;
124
else;
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f.High;
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cLevel?level;
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readMsg = levelMsg;
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level == low;
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f.Low;
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pstate == ready || pstate == lowstop;
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f.MethaneQuery;
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pstate == ready;
92
pstate = running;
93
else;
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skip;
100
pstate = running;
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else;
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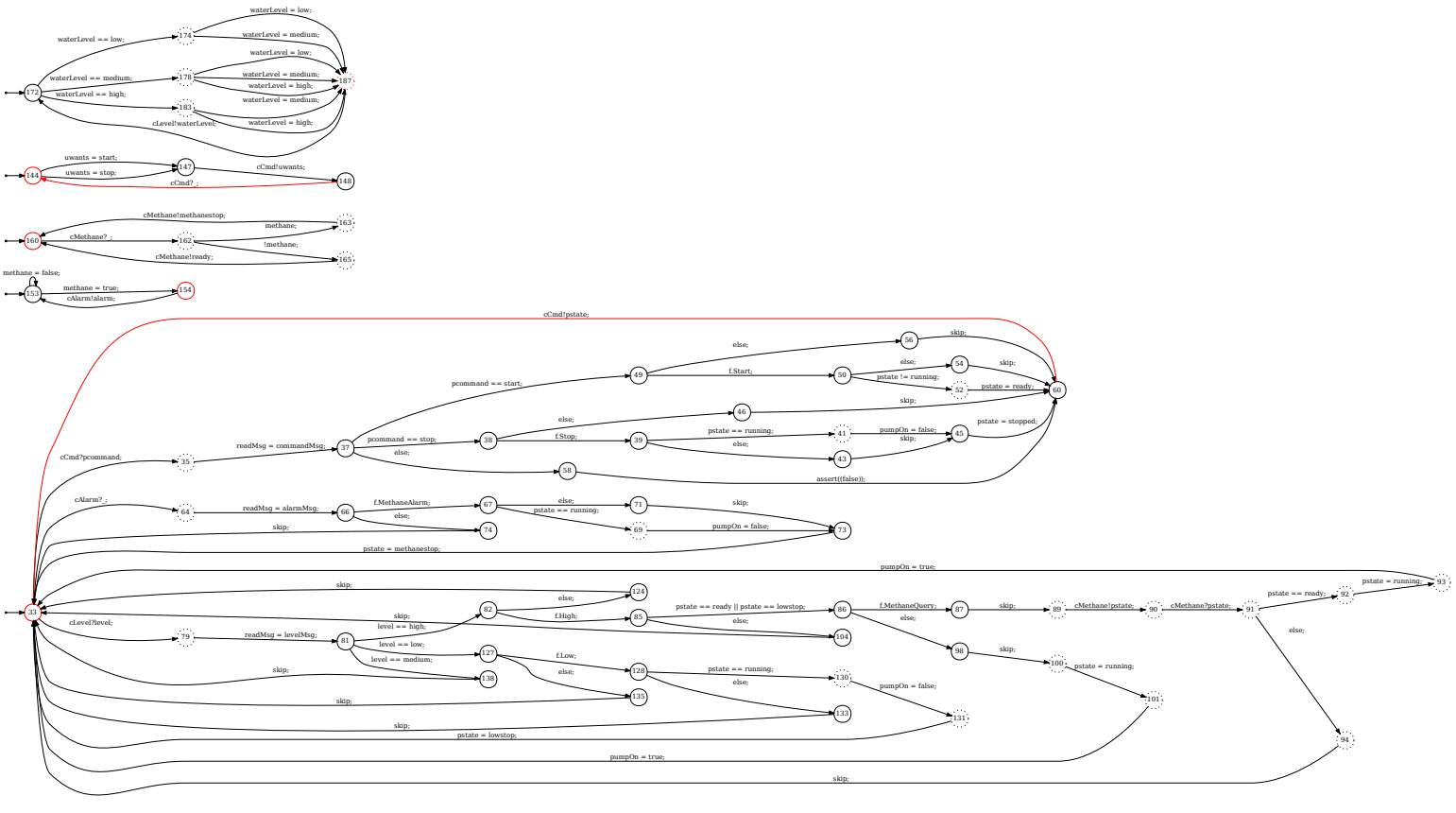
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
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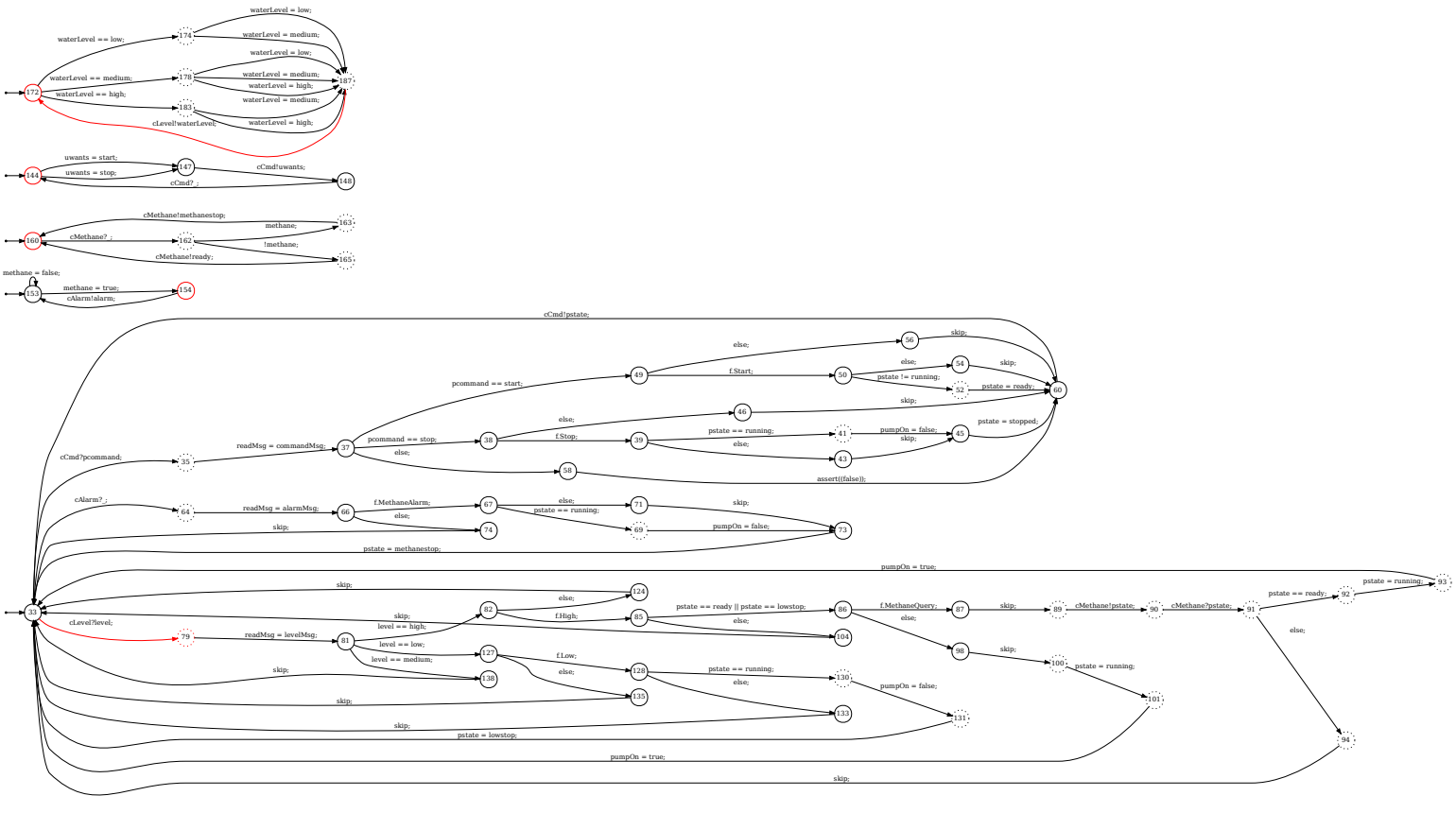
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
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56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
pstate = stopped;
f.Start;
pstate != running;
pstate = ready;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
79
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124
127
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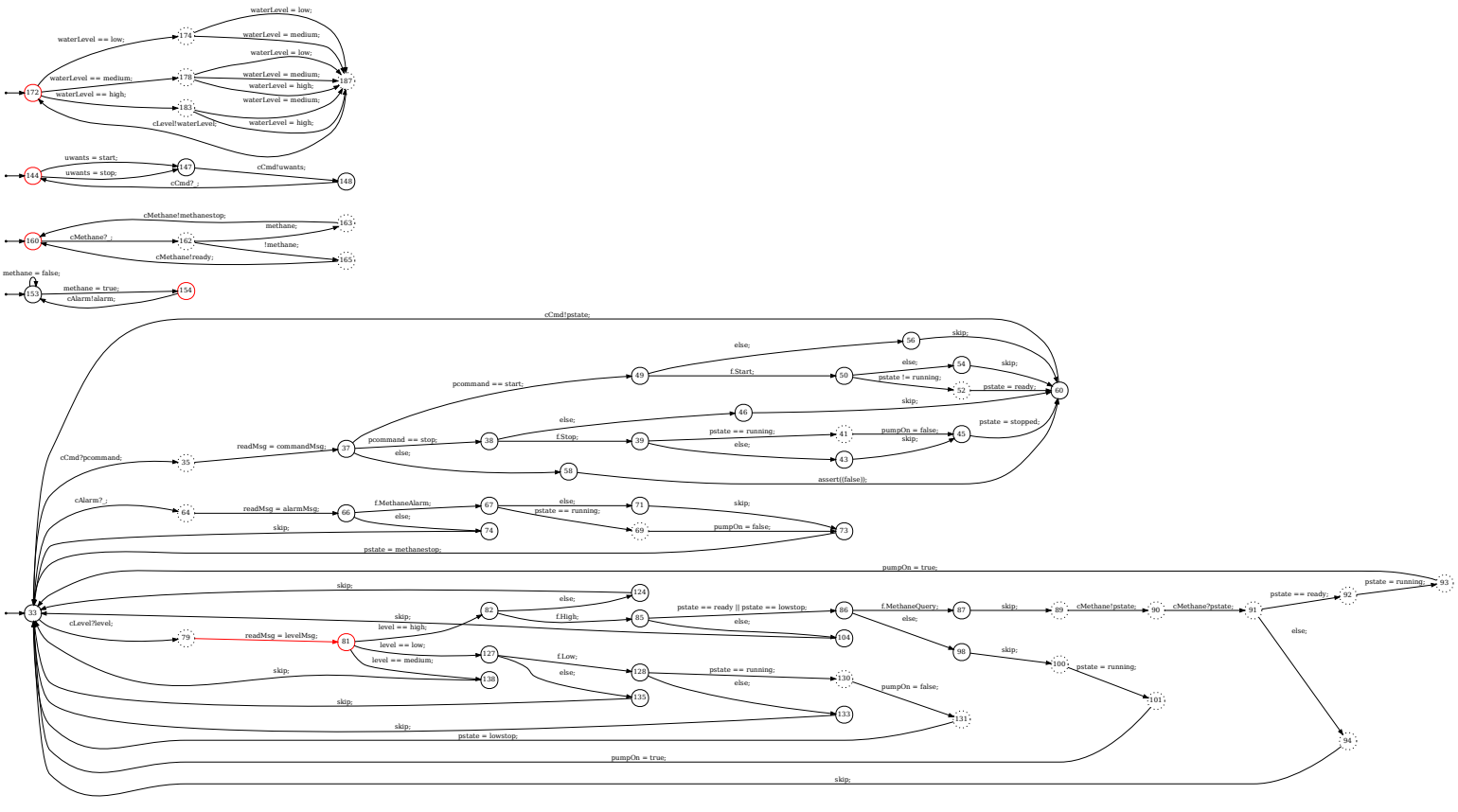
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
else;
skip;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
98
skip;
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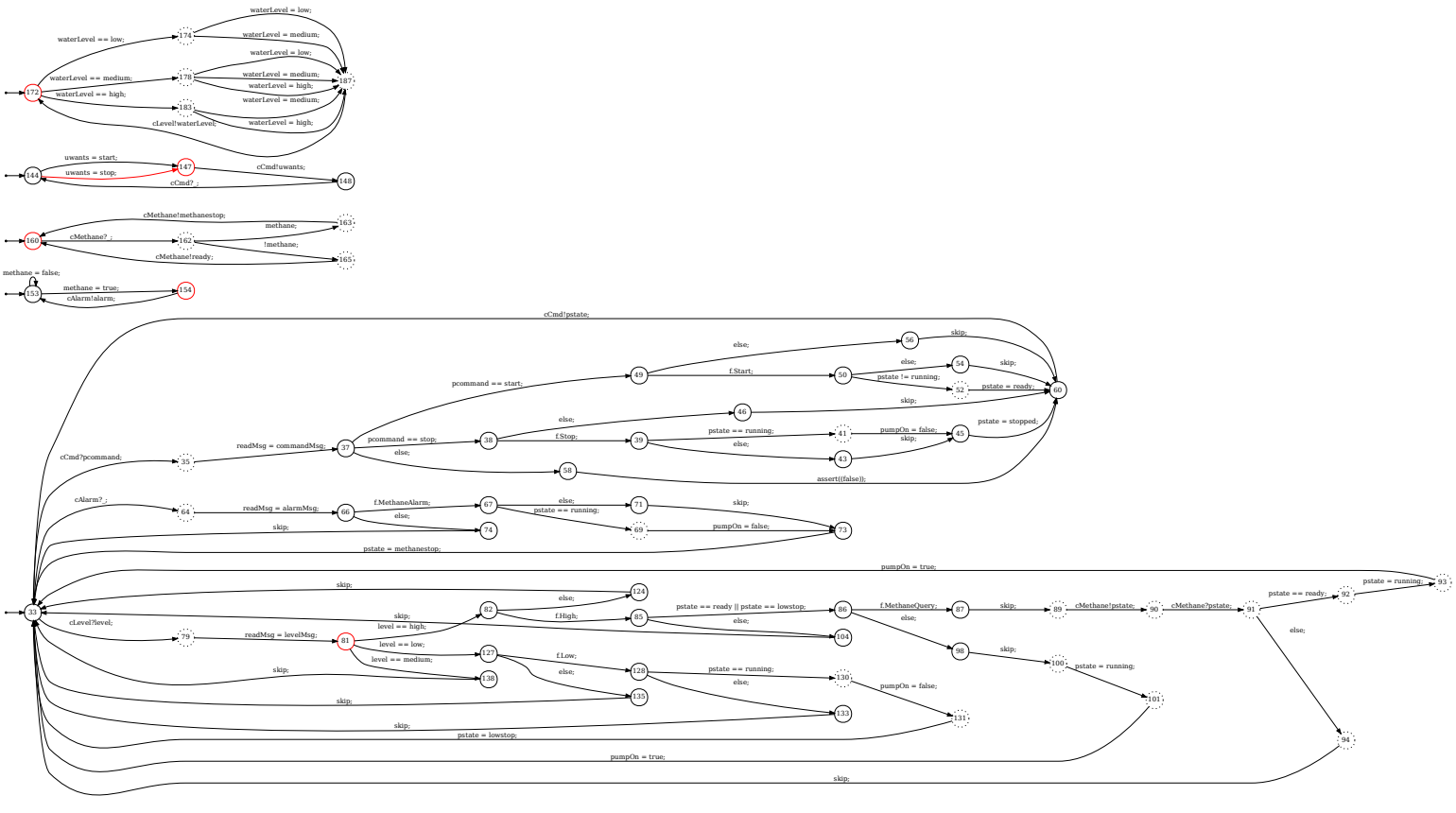
pstate = running;
101
130
else;
pumpOn = false;
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
50
49
f.Start;
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
39
f.Stop;
38
pcommand == stop;
else;
37
readMsg = commandMsg;
35
cCmd?pcommand;
58
assert((false));
64
cAlarm? ;
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
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cMethane!pstate;
90
cMethane?pstate;
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else;
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pstate = running;
93
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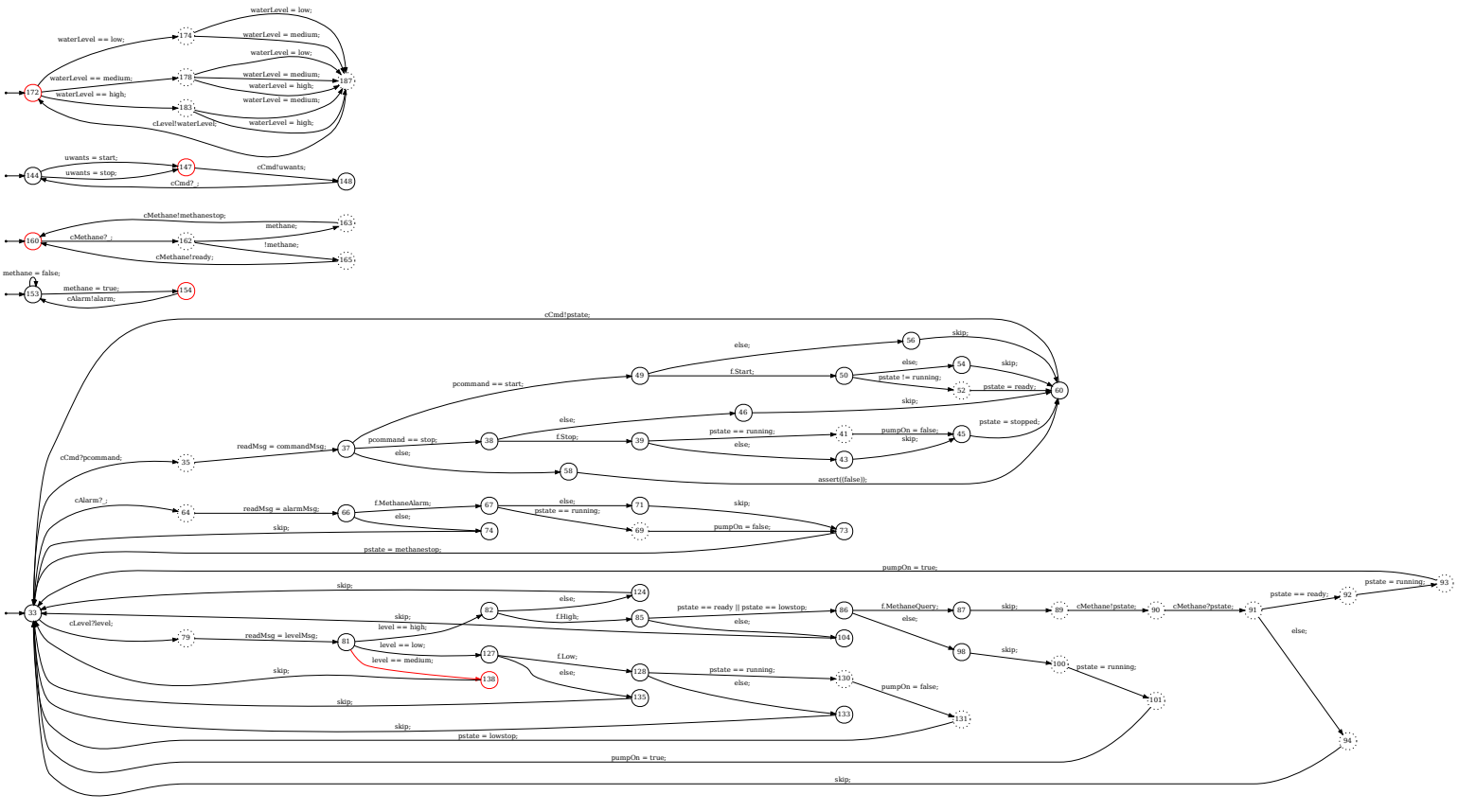
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waterLevel == low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
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162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
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154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
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skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
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pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
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38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
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f.High;
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cLevel?level;
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readMsg = levelMsg;
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level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
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138
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skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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cMethane?pstate;
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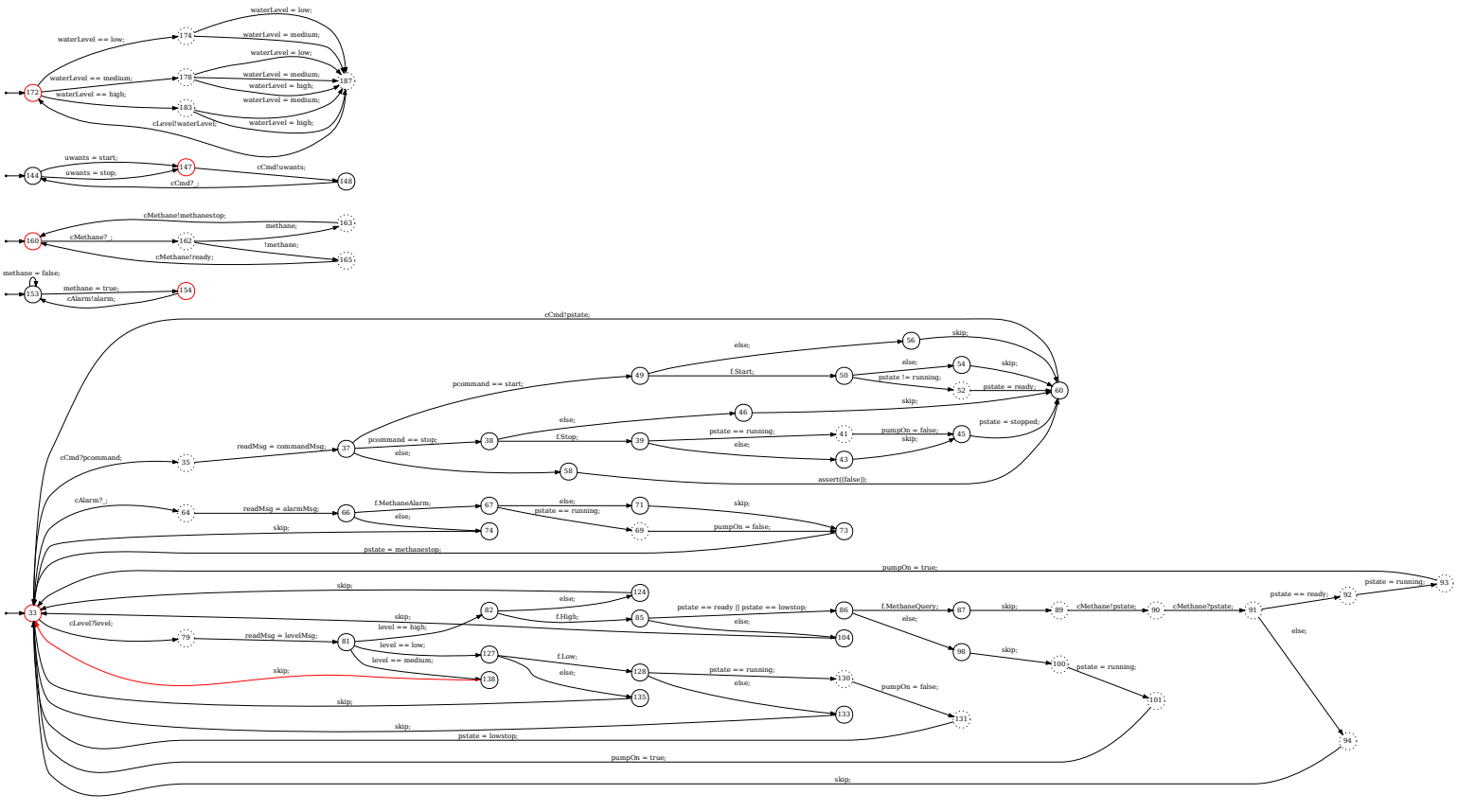
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waterLevel == low;
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cCmd?pcommand;
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readMsg = alarmMsg;
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67
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71
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pumpOn = true;
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124
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f.High;
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104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
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pumpOn = false;
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131
138
135
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
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cMethane?pstate;
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else;
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skip;
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pstate = running;
101
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pstate == ready;
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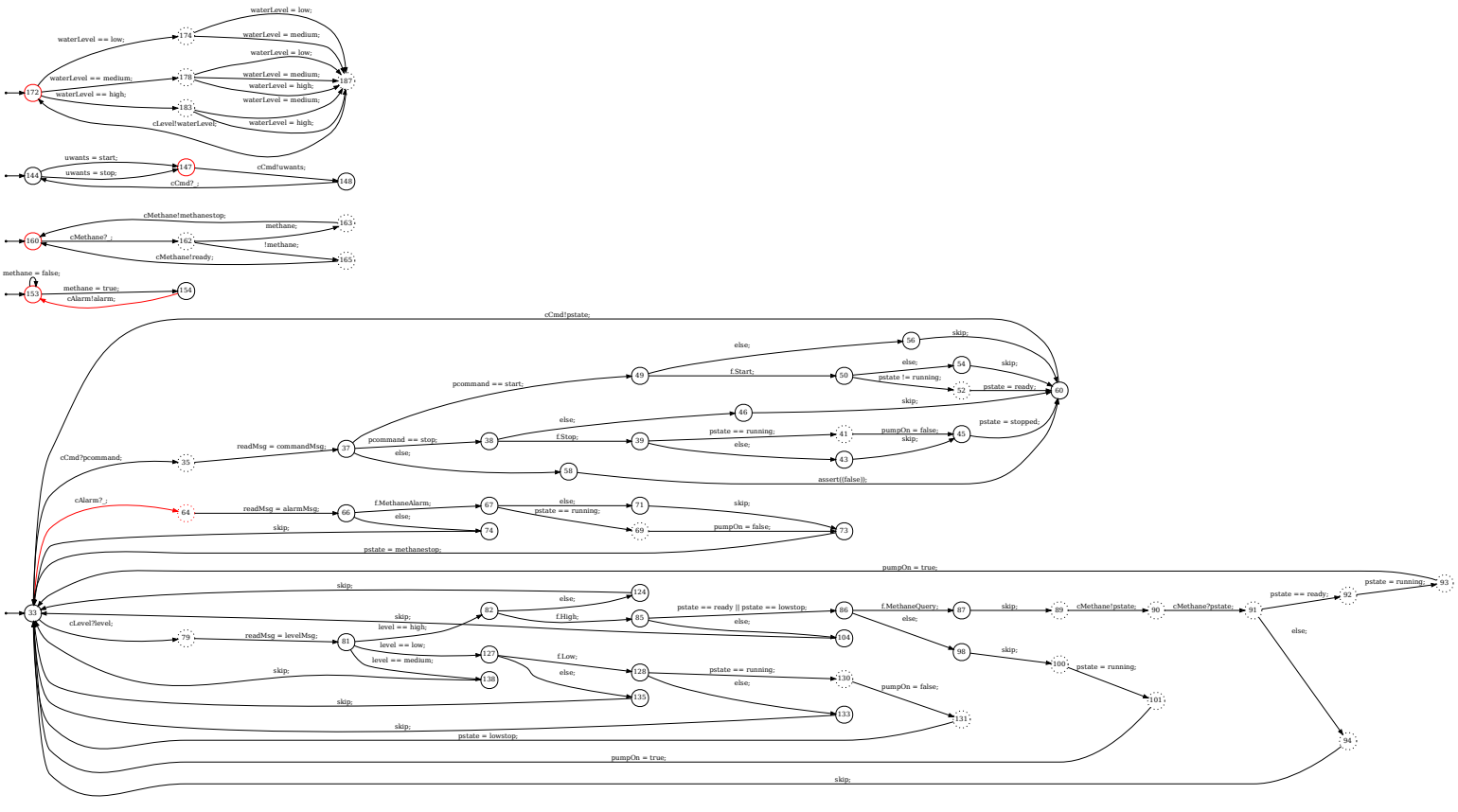
pstate = running;
93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waterLevel == low;
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154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == stopped;
pumpOn = false;
45
skip;
38
39
43
f.Stop;
pstate == running;
else;
else;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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assert((false));
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71
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pstate = methanestop;
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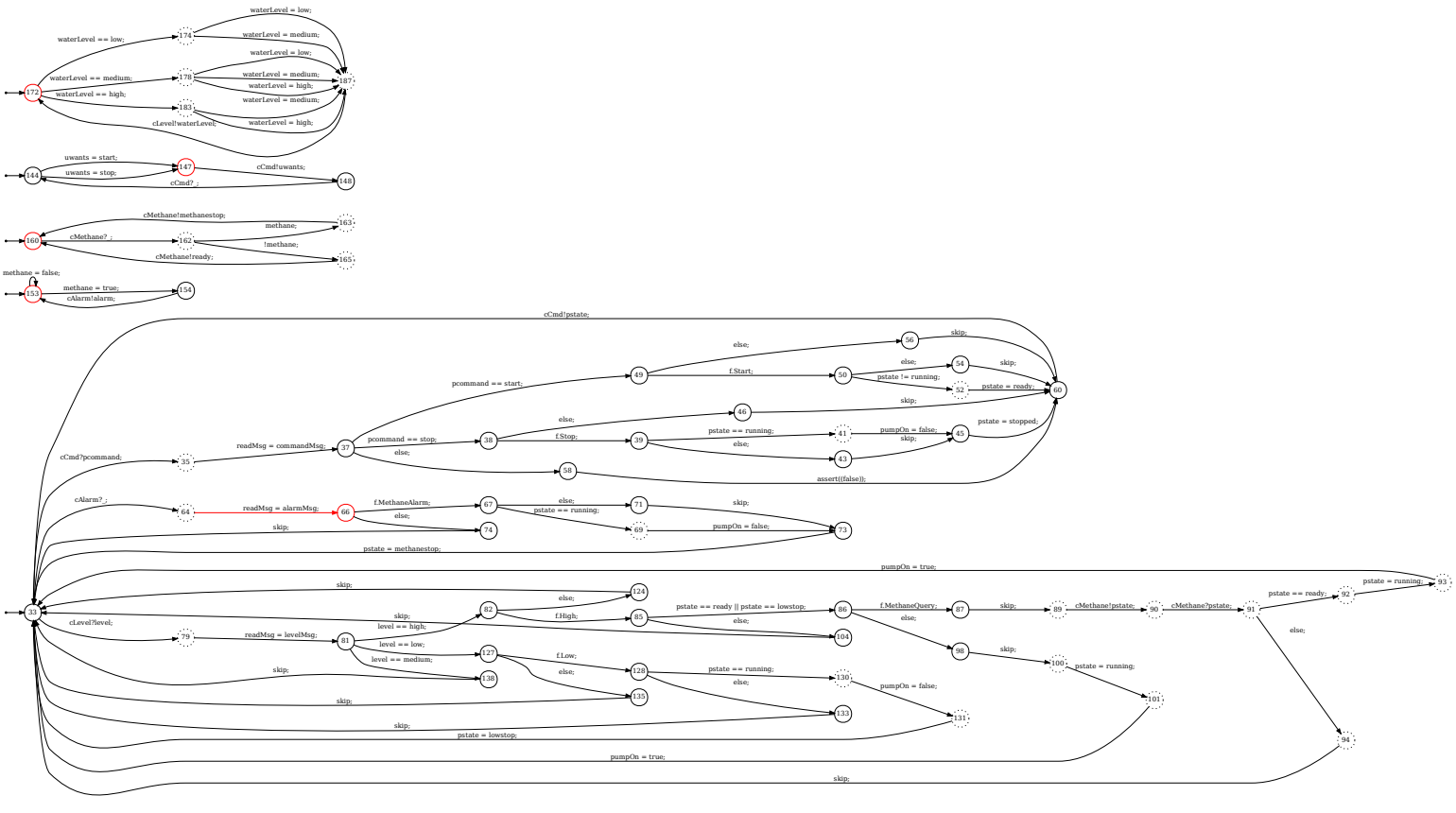
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
else;
98
skip;
100
pstate = running;
101
pumpOn = false;
138
135
133
131
94
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
33
79
81
82
85
86
87
89
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91
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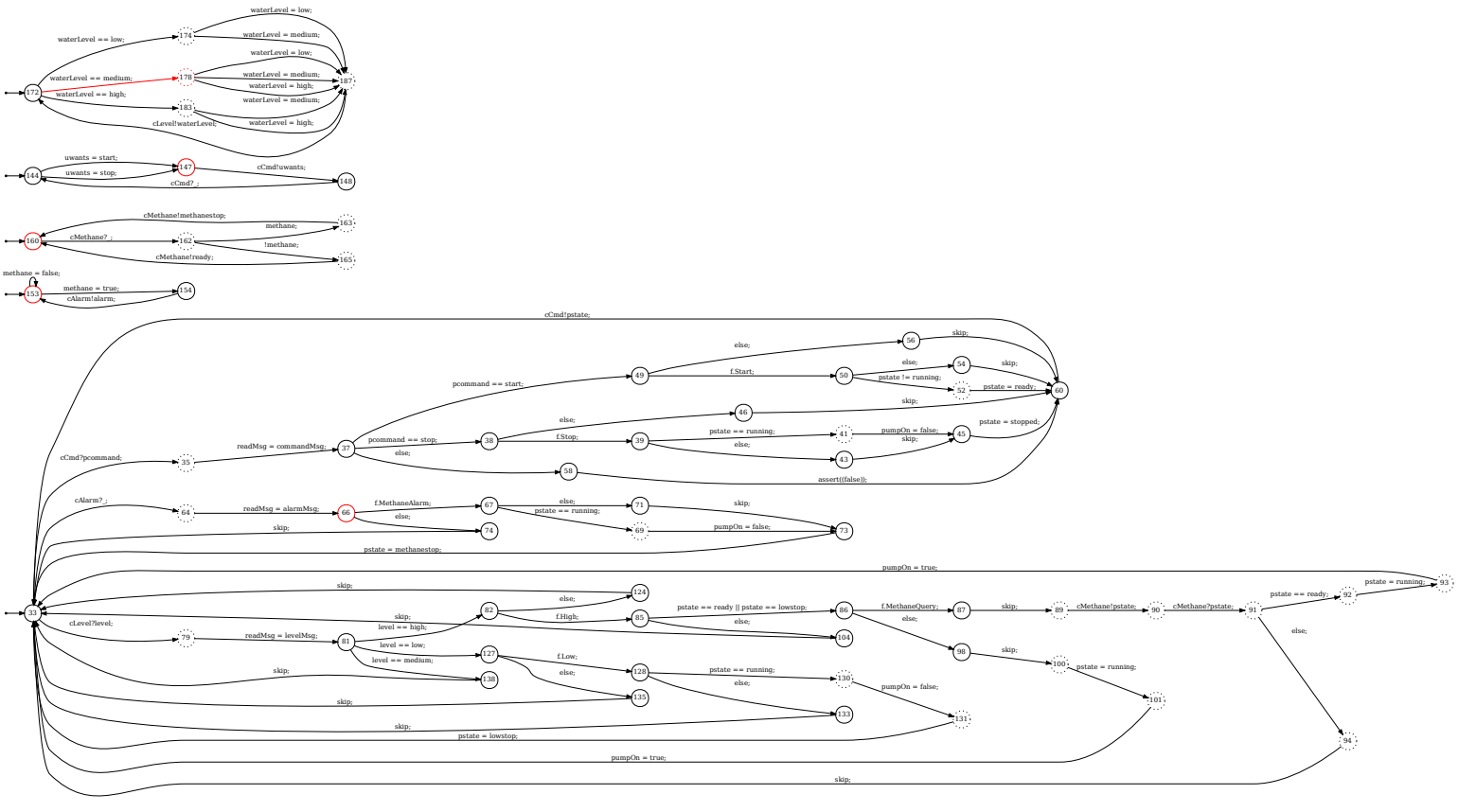
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate == ready;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
33
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101
104
124
127
128
130
131
133
135
138
cCmd!pstate;
skip;
else;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
pstate == running;
pstate = stopped;
pumpOn = false;
readMsg = commandMsg;
pcommand == stop;
f.Stop;
assert((false));
cCmd?pcommand;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
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pstate = running;
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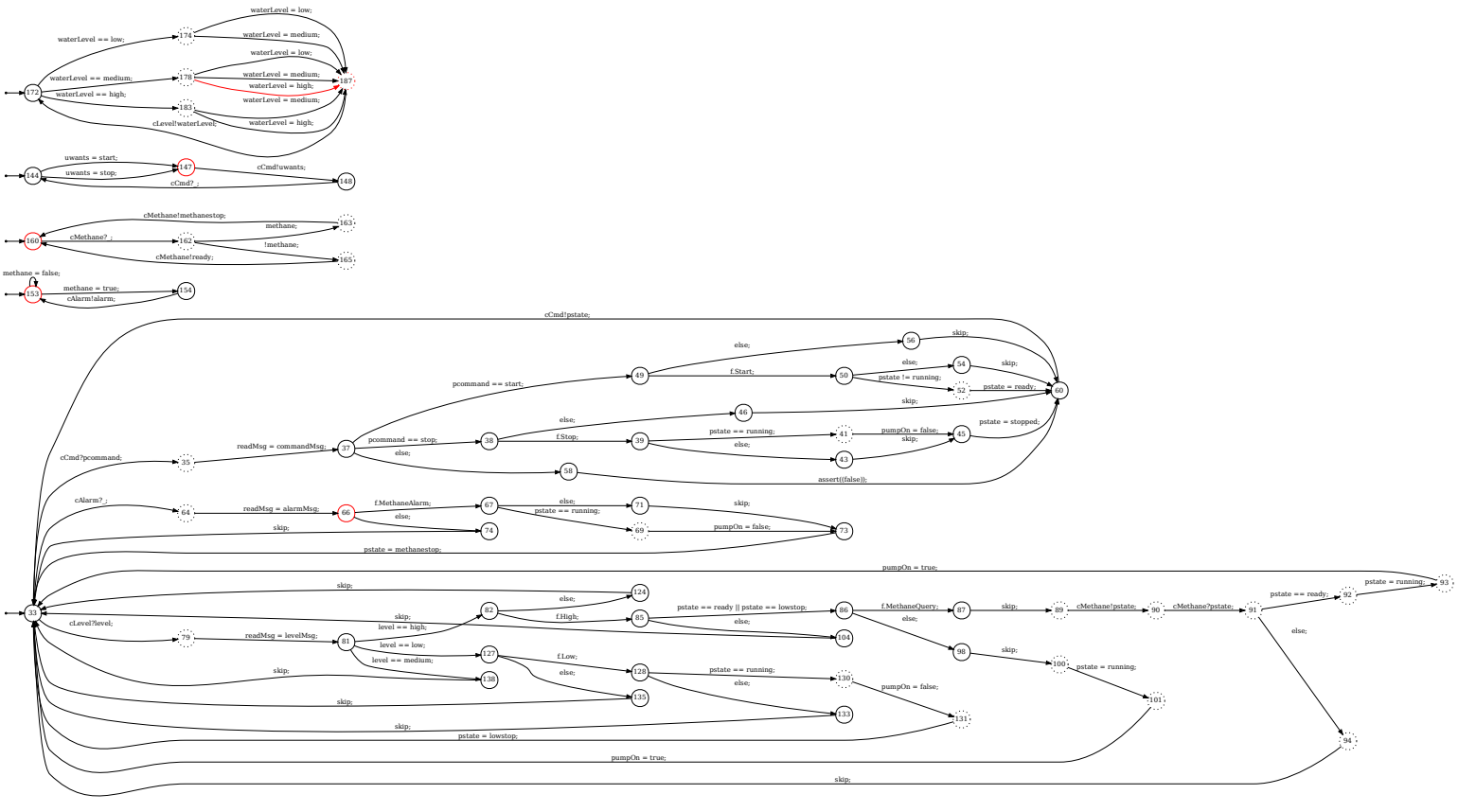
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waterLevel == low;
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183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
69
skip;
74
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
98
skip;
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else;
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skip;
pstate = lowstop;
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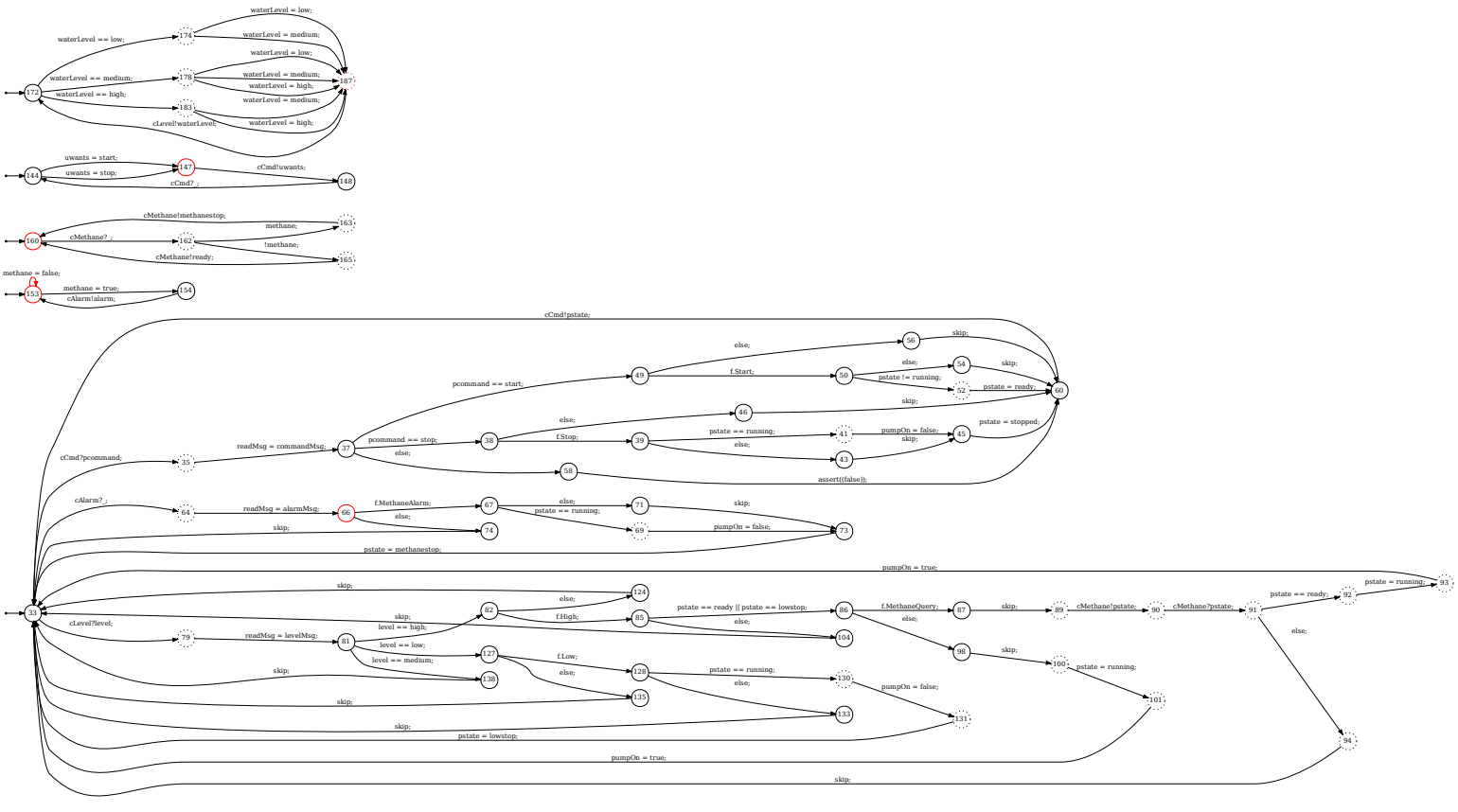
skip;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waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pstate == running;
pumpOn = false;
f.Stop;
39
else;
skip;
43
38
37
35
58
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
else;
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pstate = running;
101
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skip;
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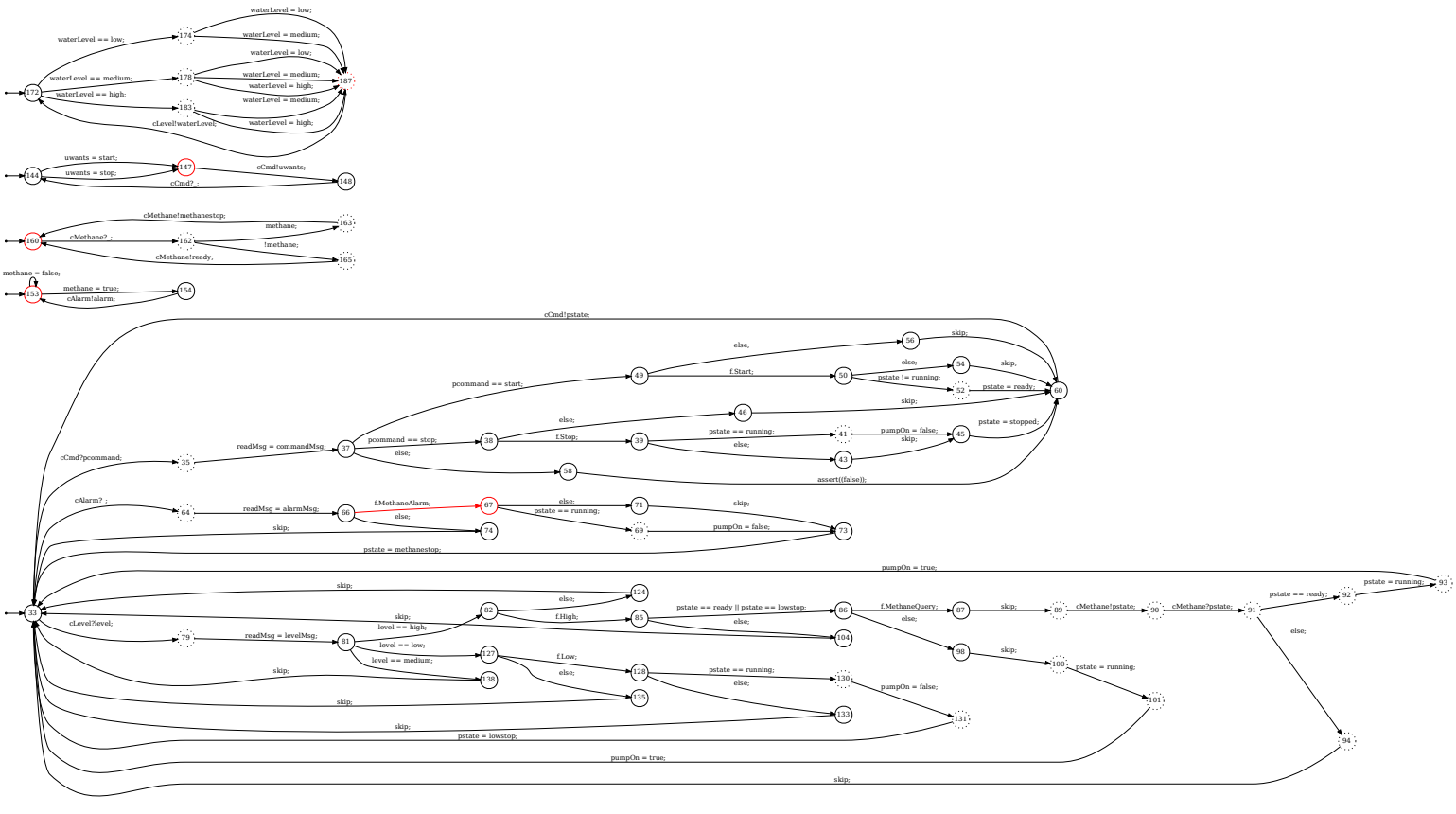
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
60
skip;
46
else;
pcommand == start;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
39
f.Stop;
38
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
skip;
level == high;
f.High;
85
else;
104
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
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skip;
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skip;
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skip;
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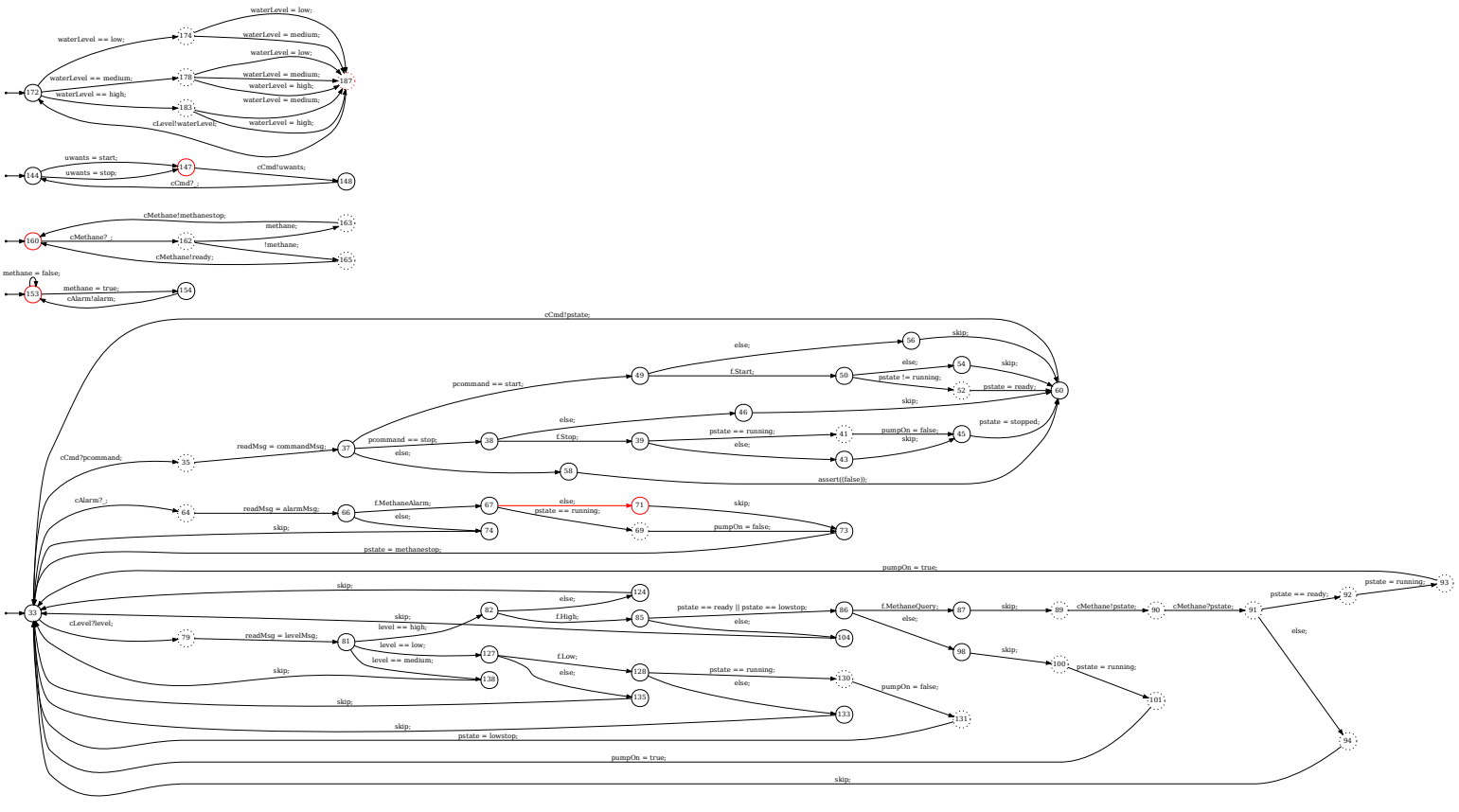
pstate = running;
101
94
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
131
133
pumpOn = false;
pumpOn = true;
skip;
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skip;
cMethane!pstate;
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cMethane?pstate;
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else;
pstate == ready;
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pstate = running;
93
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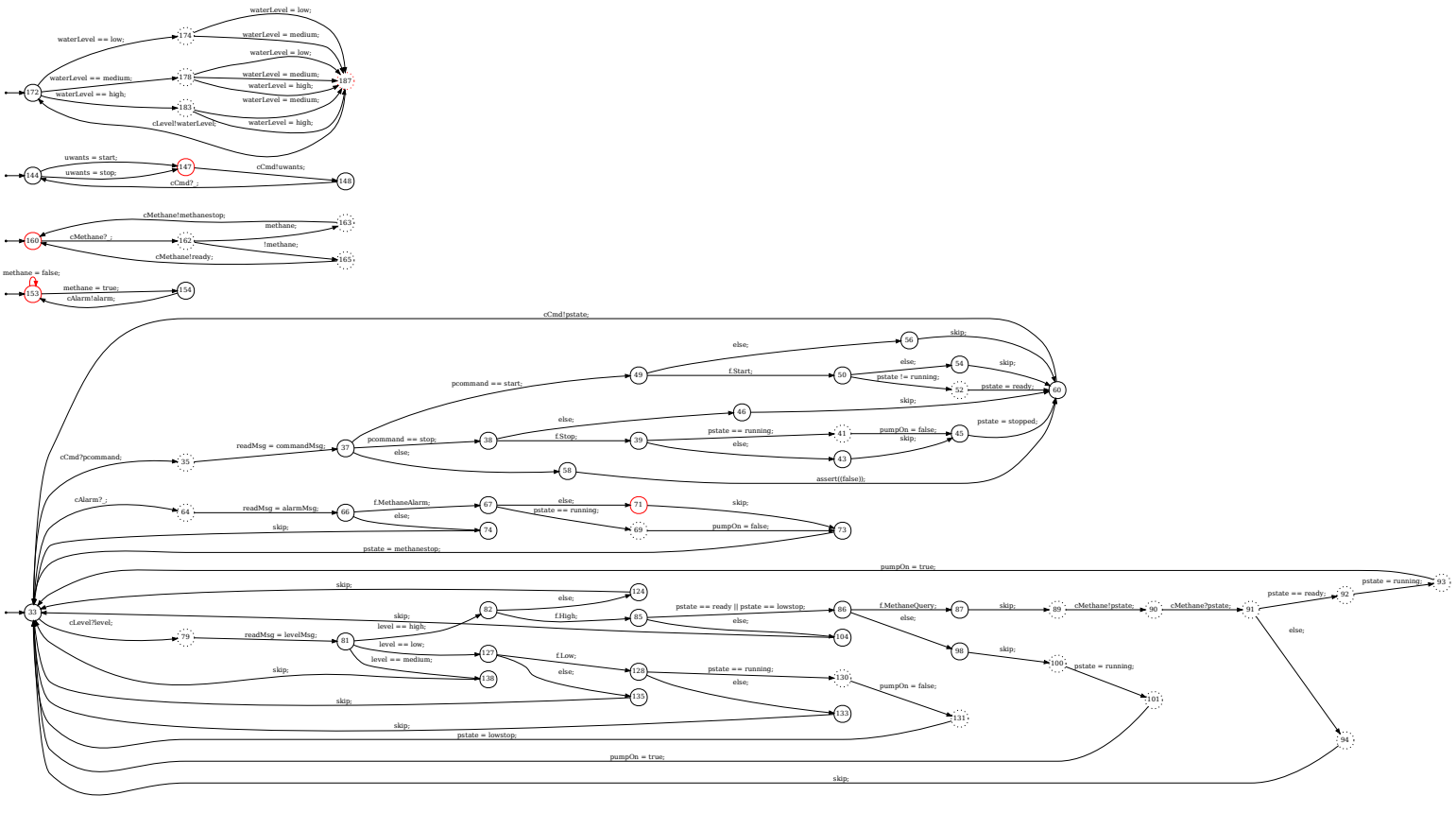
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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skip;
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cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
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skip;
level == high;
f.High;
else;
85
else;
104
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
98
skip;
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pstate = running;
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skip;
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skip;
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skip;
pstate = lowstop;
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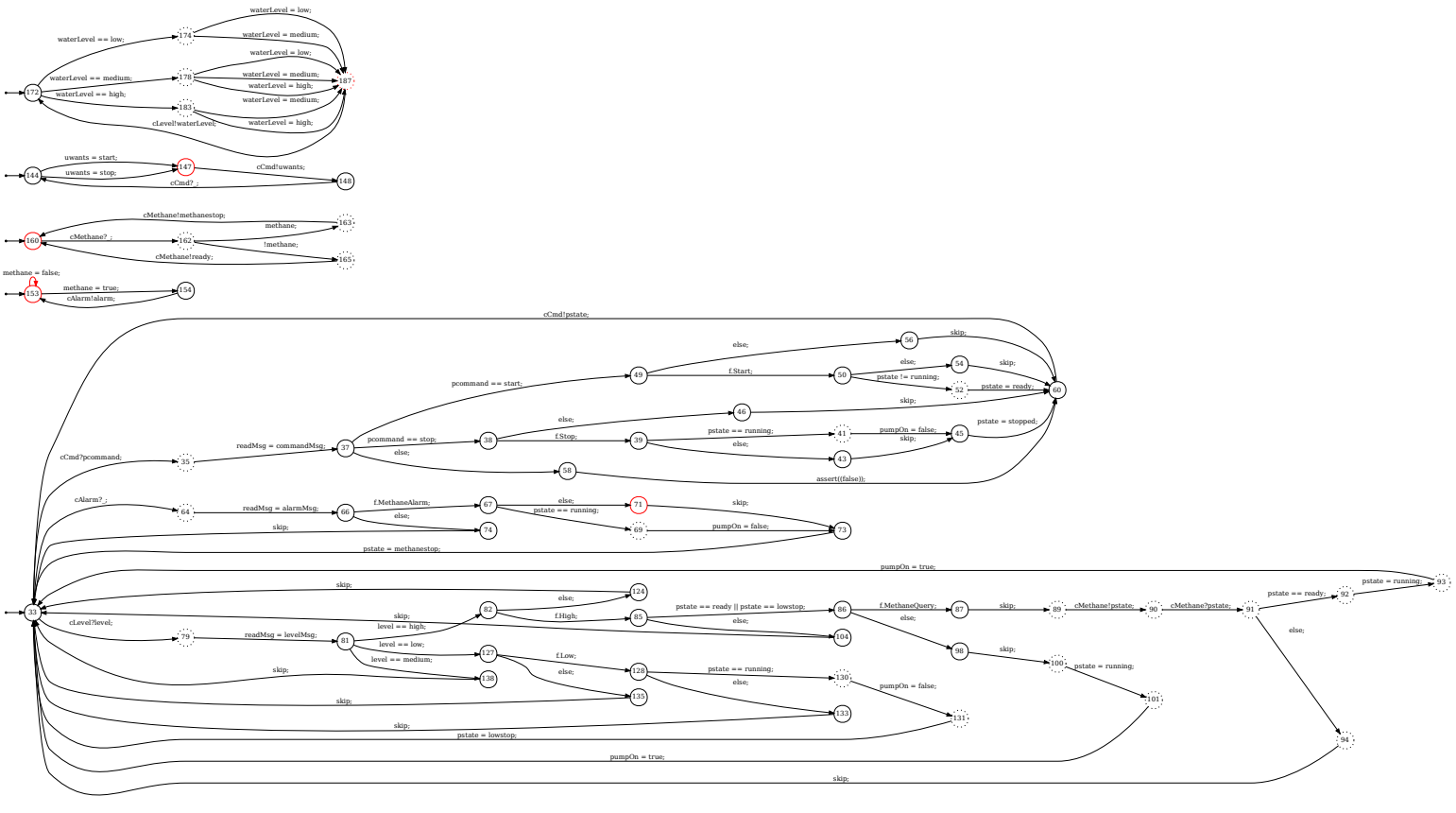
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
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f.MethaneAlarm;
else;
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else;
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skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
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pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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89
cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
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readMsg = levelMsg;
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skip;
level == high;
f.High;
else;
85
else;
104
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
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pumpOn = false;
98
skip;
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pumpOn = true;
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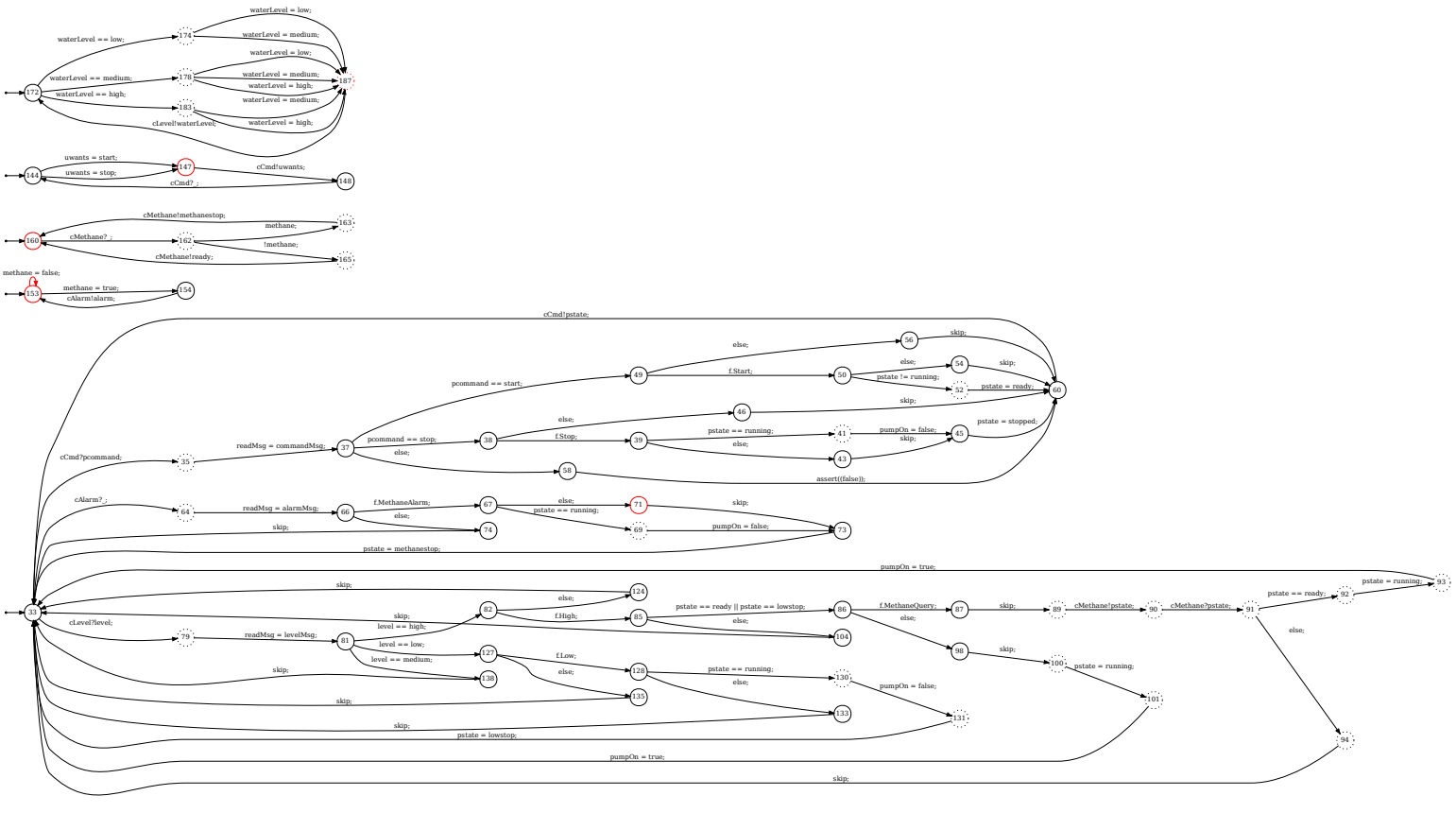
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waterLevel == low;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
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else;
skip;
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50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
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pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
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cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
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assert((false));
cAlarm? ;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
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skip;
pstate == running;
74
69
pumpOn = false;
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skip;
pstate = methanestop;
pumpOn = true;
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skip;
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else;
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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skip;
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cMethane!pstate;
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cMethane?pstate;
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pstate == ready;
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pstate = running;
93
else;
cLevel?level;
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readMsg = levelMsg;
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f.High;
else;
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else;
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level == low;
level == medium;
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f.Low;
else;
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pstate == running;
else;
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pumpOn = false;
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skip;
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skip;
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pstate = lowstop;
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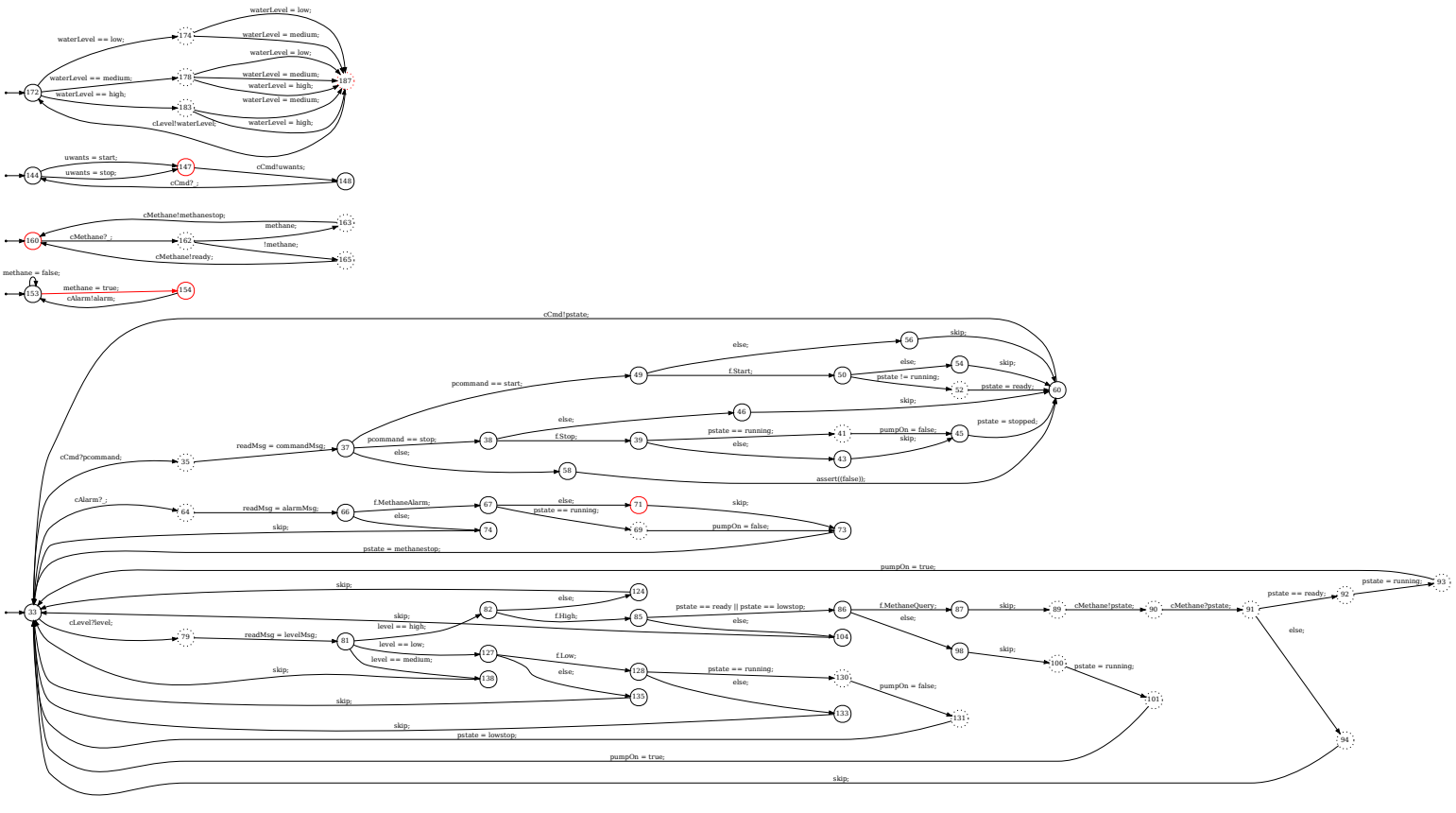
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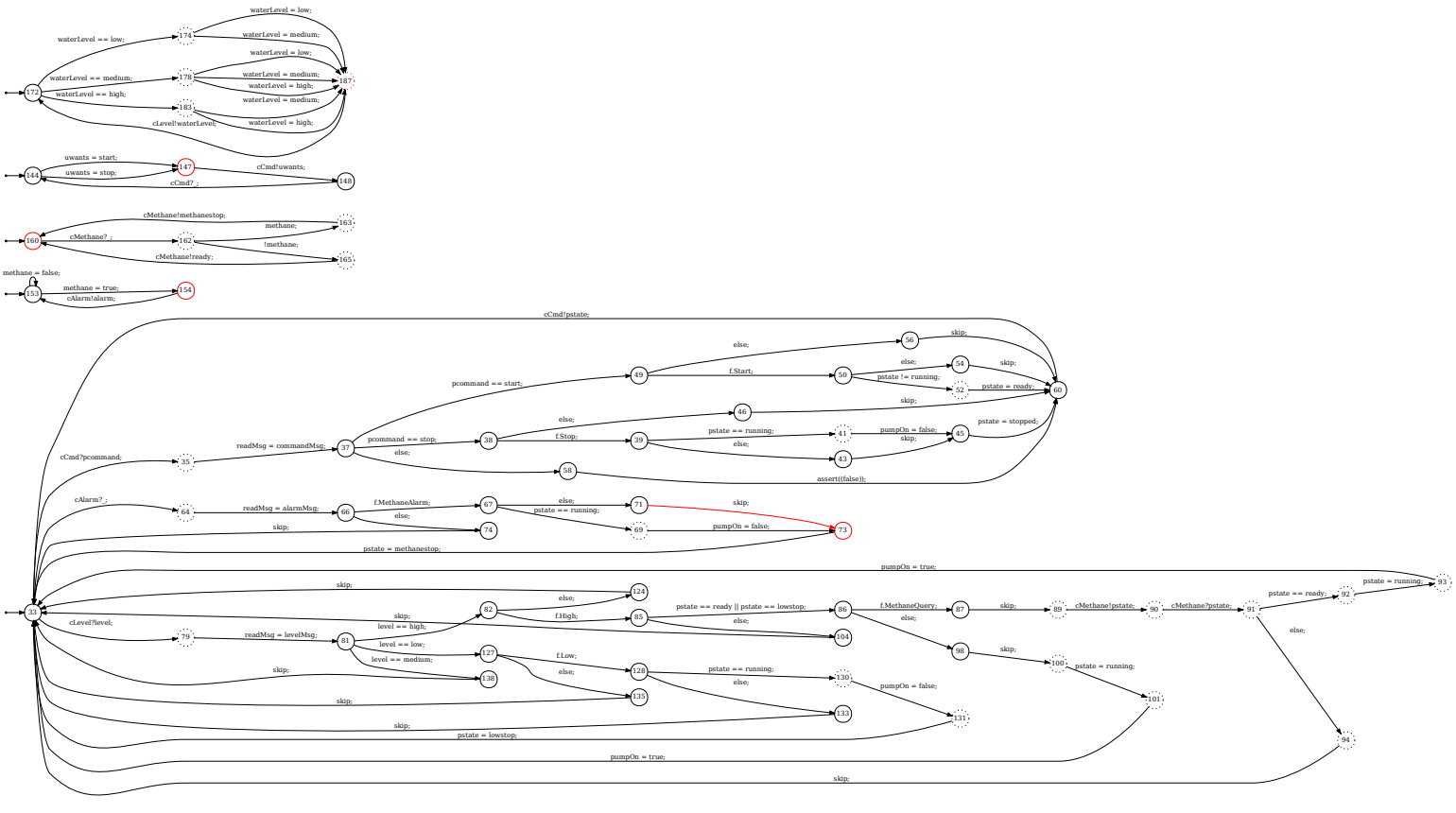
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
38
f.Stop;
39
else;
skip;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
else;
135
133
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
130
else;
pumpOn = false;
131
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
79
81
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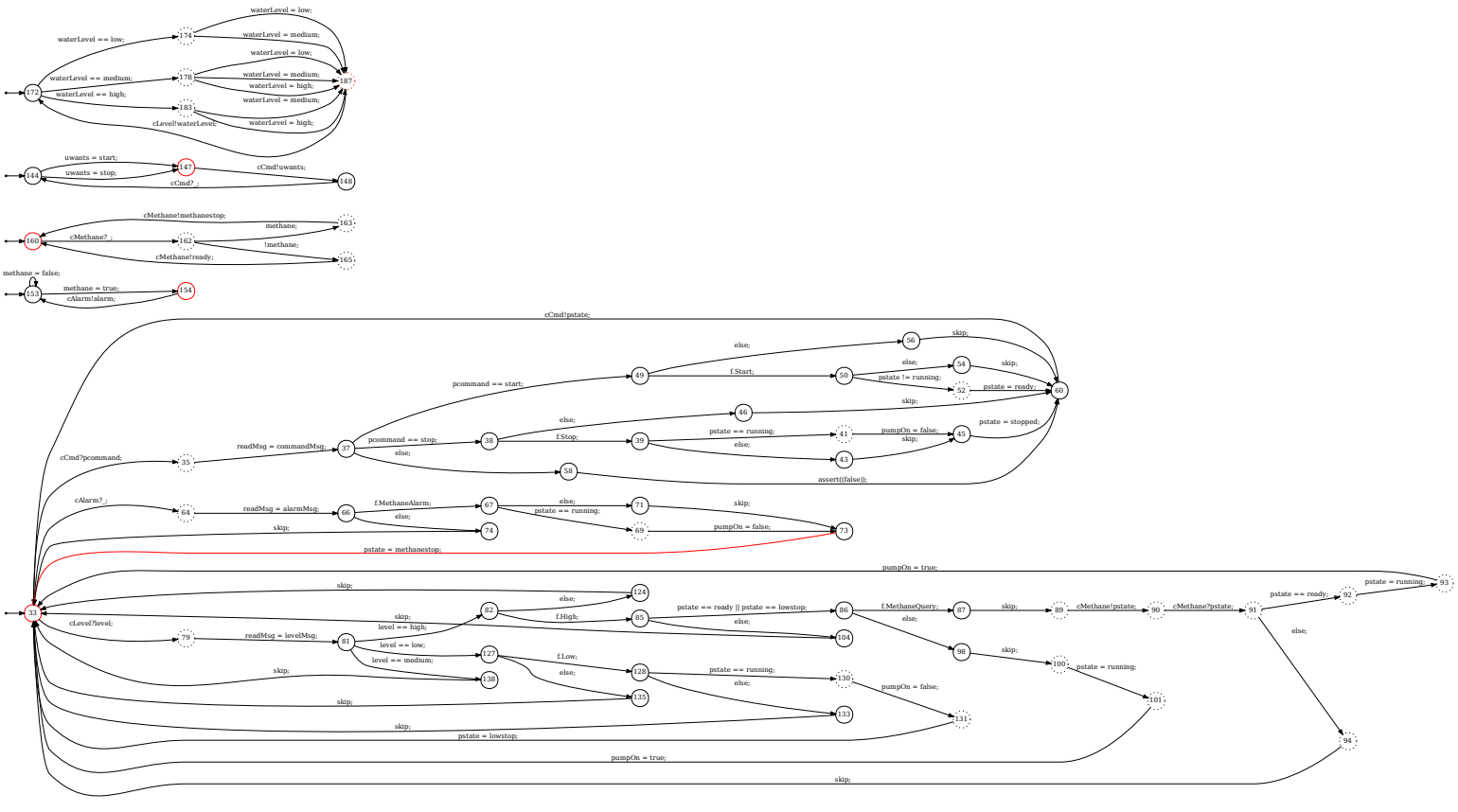
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
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38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
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skip;
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43
cCmd?pcommand;
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pstate == ready || pstate == lowstop;
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100
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level == medium;
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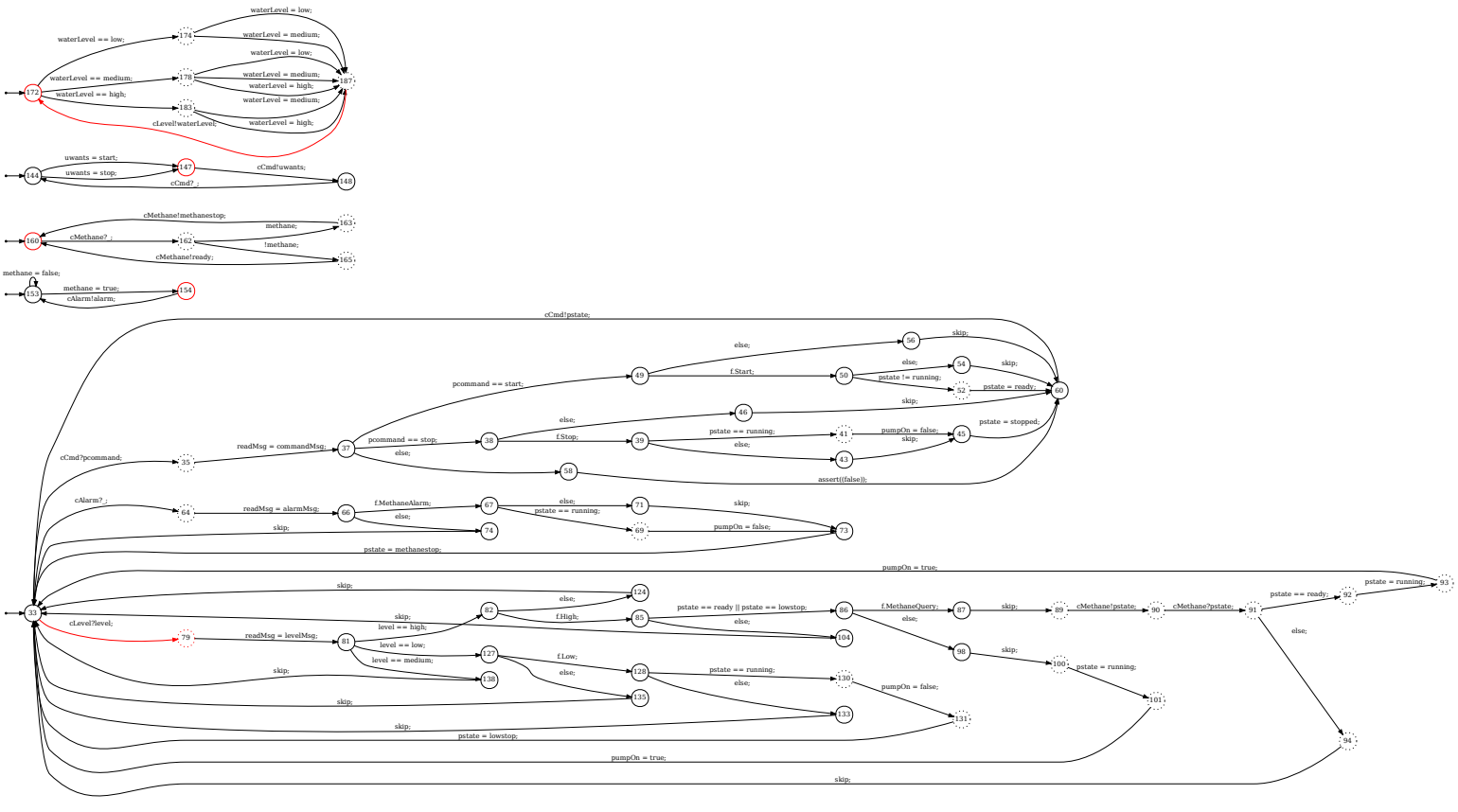
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waterLevel == high;
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pumpOn = false;
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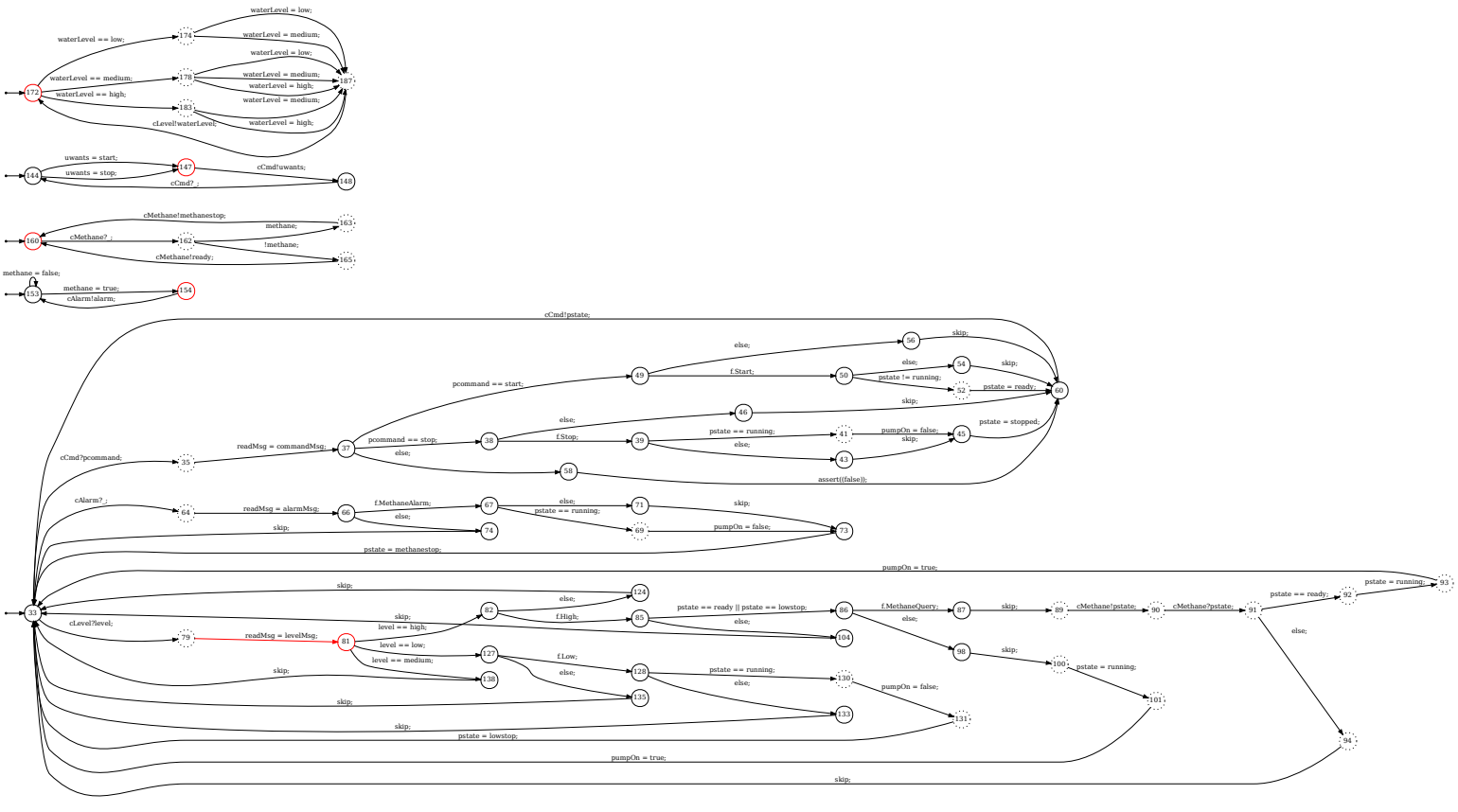
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waterLevel == low;
waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
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waterLevel = high;
144
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cCmd? ;
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methane;
!methane;
cMethane!ready;
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154
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cCmd!pstate;
56
skip;
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54
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skip;
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f.Stop;
39
58
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cCmd?pcommand;
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readMsg = commandMsg;
37
pcommand == stop;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
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124
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f.High;
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level == low;
level == medium;
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else;
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138
135
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skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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cMethane?pstate;
91
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98
skip;
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101
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pumpOn = false;
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131
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skip;
pstate == ready;
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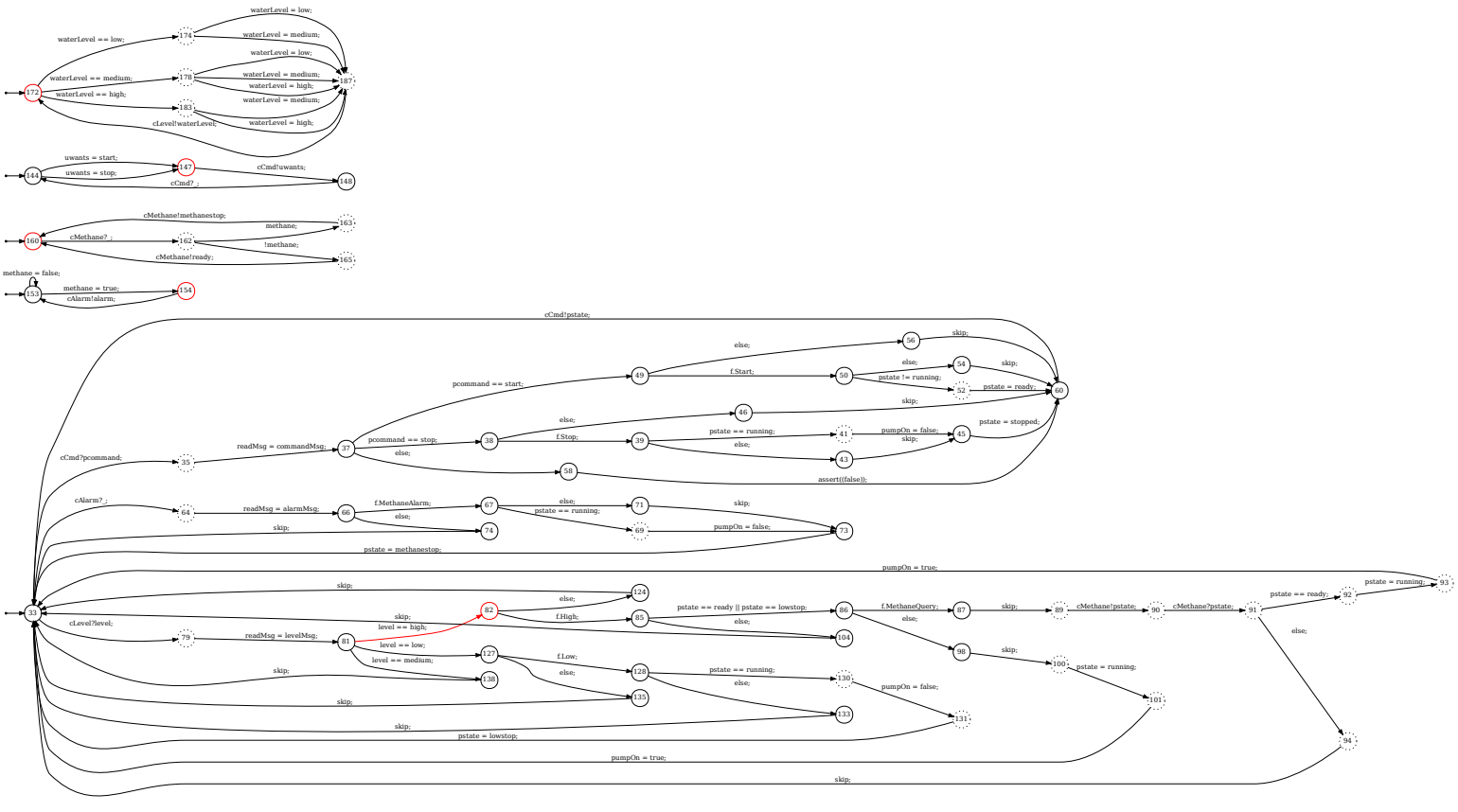
pstate = running;
93
94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waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
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waterLevel = high;
144
147
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uwants = start;
uwants = stop;
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cCmd? ;
160
162
163
165
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cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
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54
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skip;
49
f.Start;
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pstate != running;
52
pstate = ready;
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pcommand == start;
skip;
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pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
f.Stop;
39
else;
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assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
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else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
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else;
138
135
133
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
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pstate = running;
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else;
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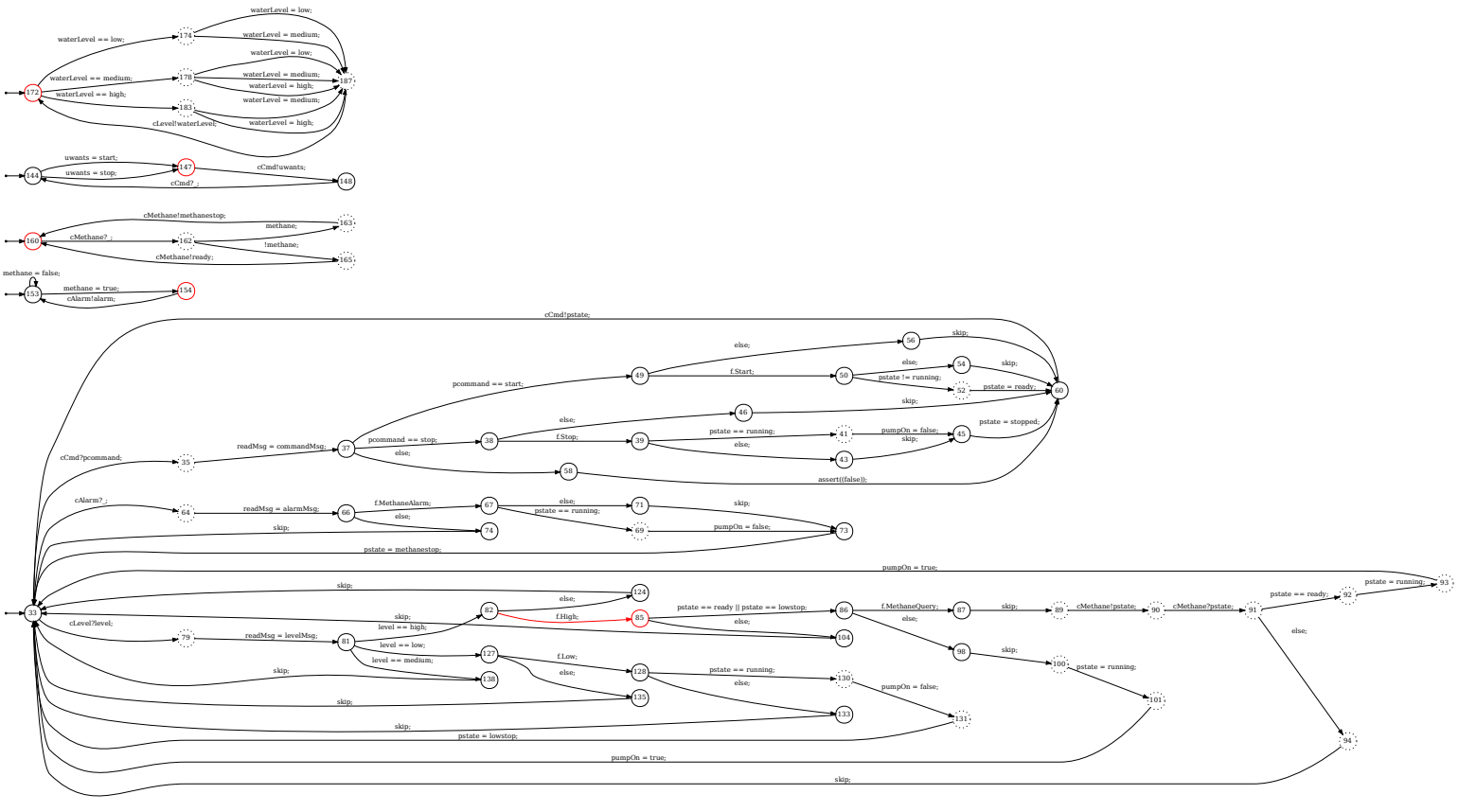
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
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144
147
148
uwants = start;
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162
163
165
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methane;
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153
154
methane = false;
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skip;
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f.Start;
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pstate != running;
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pstate = ready;
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pcommand == start;
skip;
46
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pstate == running;
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43
35
readMsg = commandMsg;
37
pcommand == stop;
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f.Stop;
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assert((false));
cCmd?pcommand;
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readMsg = alarmMsg;
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f.MethaneAlarm;
else;
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else;
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pstate == running;
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cAlarm? ;
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pstate = methanestop;
pumpOn = true;
33
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pstate == ready || pstate == lowstop;
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f.MethaneQuery;
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pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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pstate = running;
101
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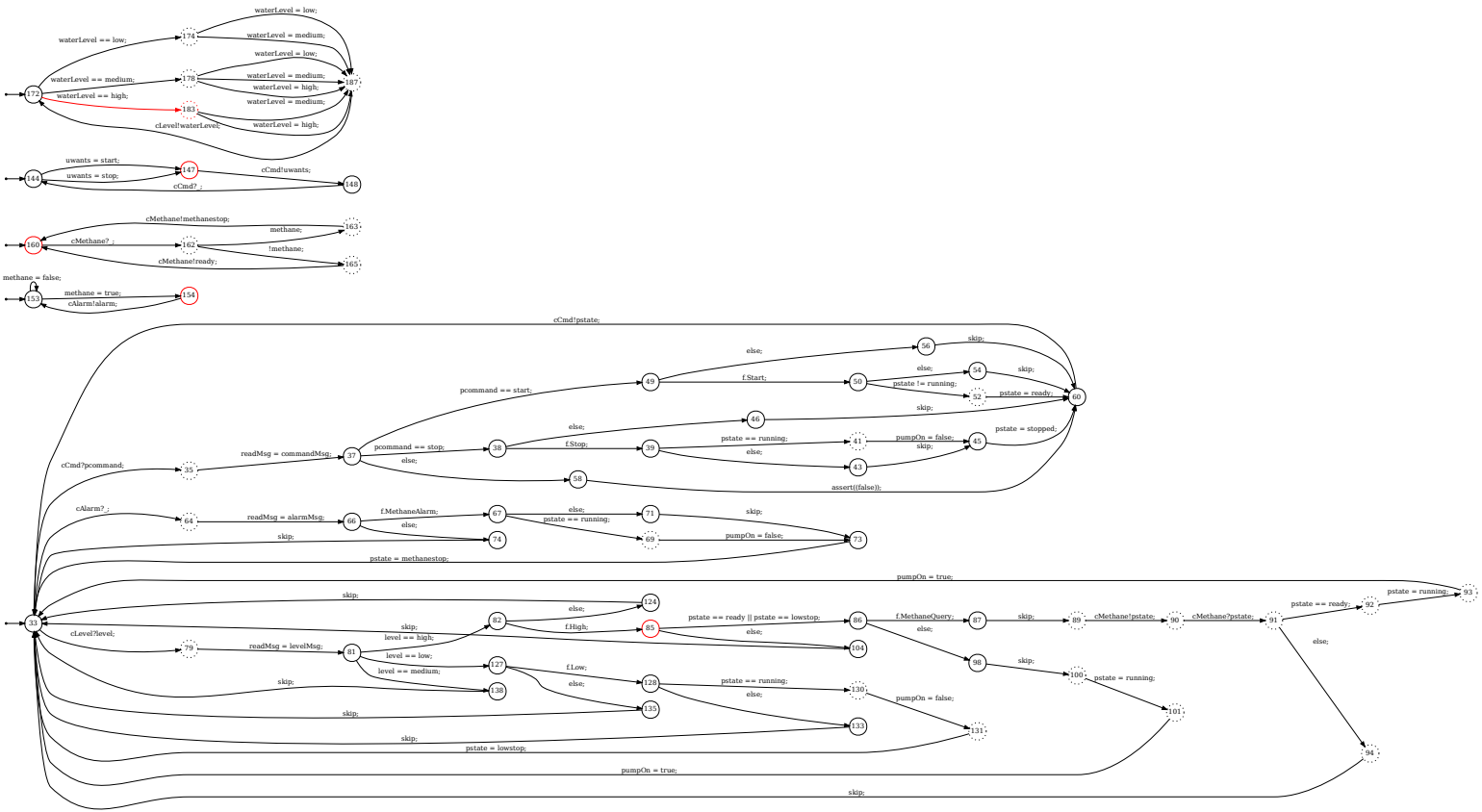
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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133
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138
cCmd!pstate;
skip;
else;
f.Start;
pstate != running;
else;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
else;
f.Low;
else;
pstate == ready || pstate == lowstop;
else;
else;
pstate == running;
else;
f.MethaneQuery;
else;
skip;
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cMethane?pstate;
pstate == ready;
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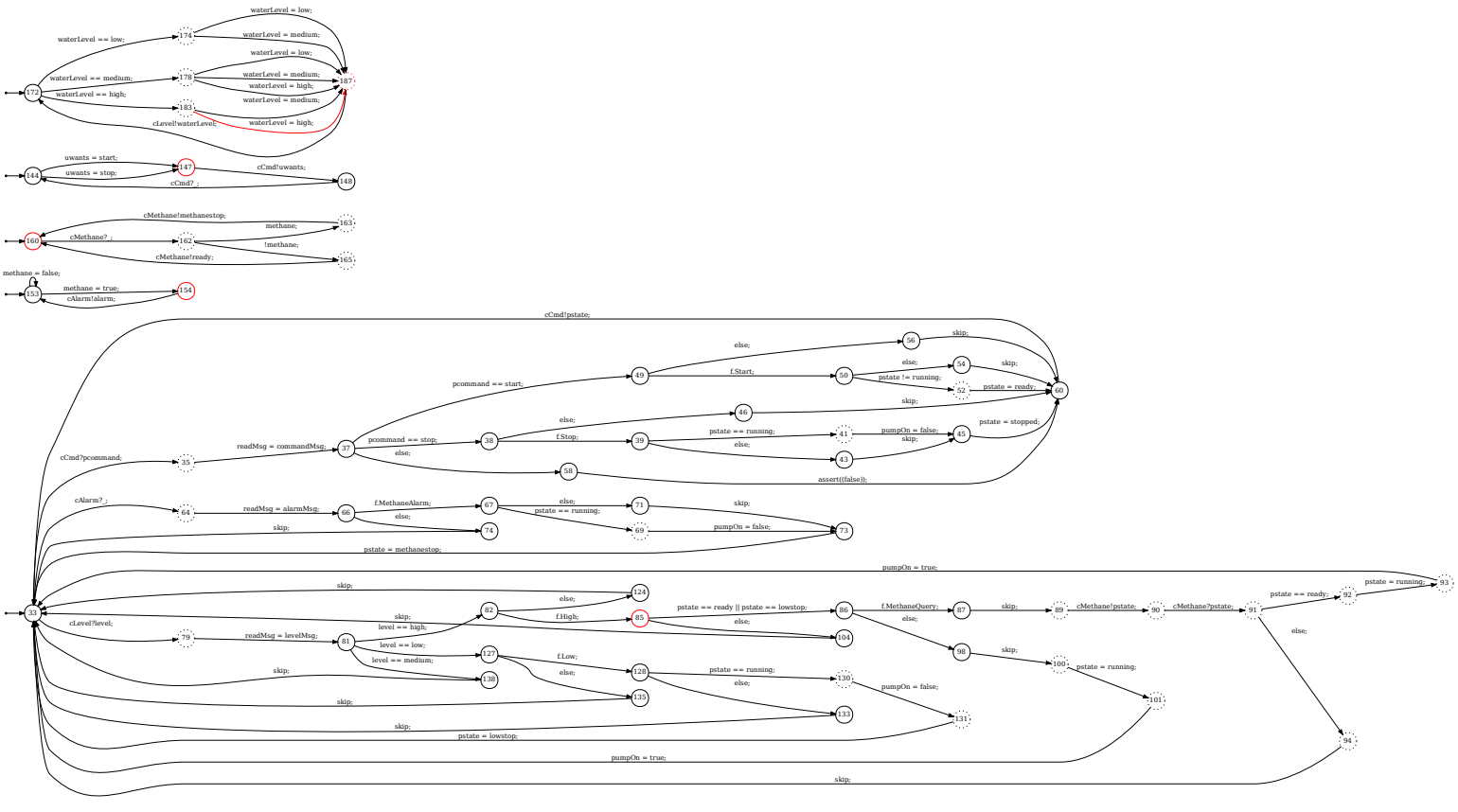
pumpOn = true;
skip;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level == medium;
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pstate = lowstop;
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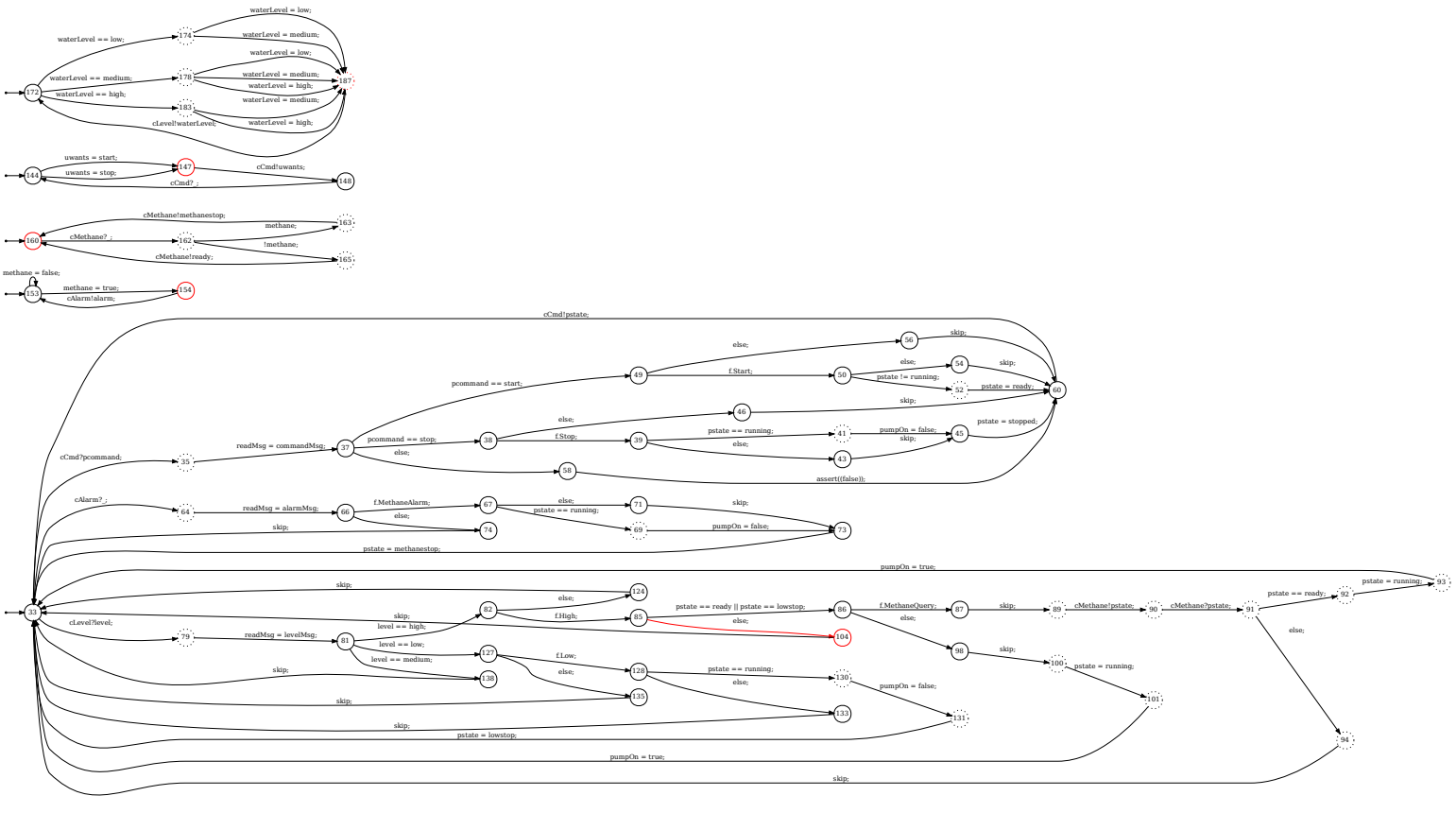
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f.Stop;
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pumpOn = false;
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69
pumpOn = false;
73
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pstate = methanestop;
pumpOn = true;
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82
f.High;
85
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cLevel?level;
79
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81
skip;
level == high;
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127
f.Low;
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138
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133
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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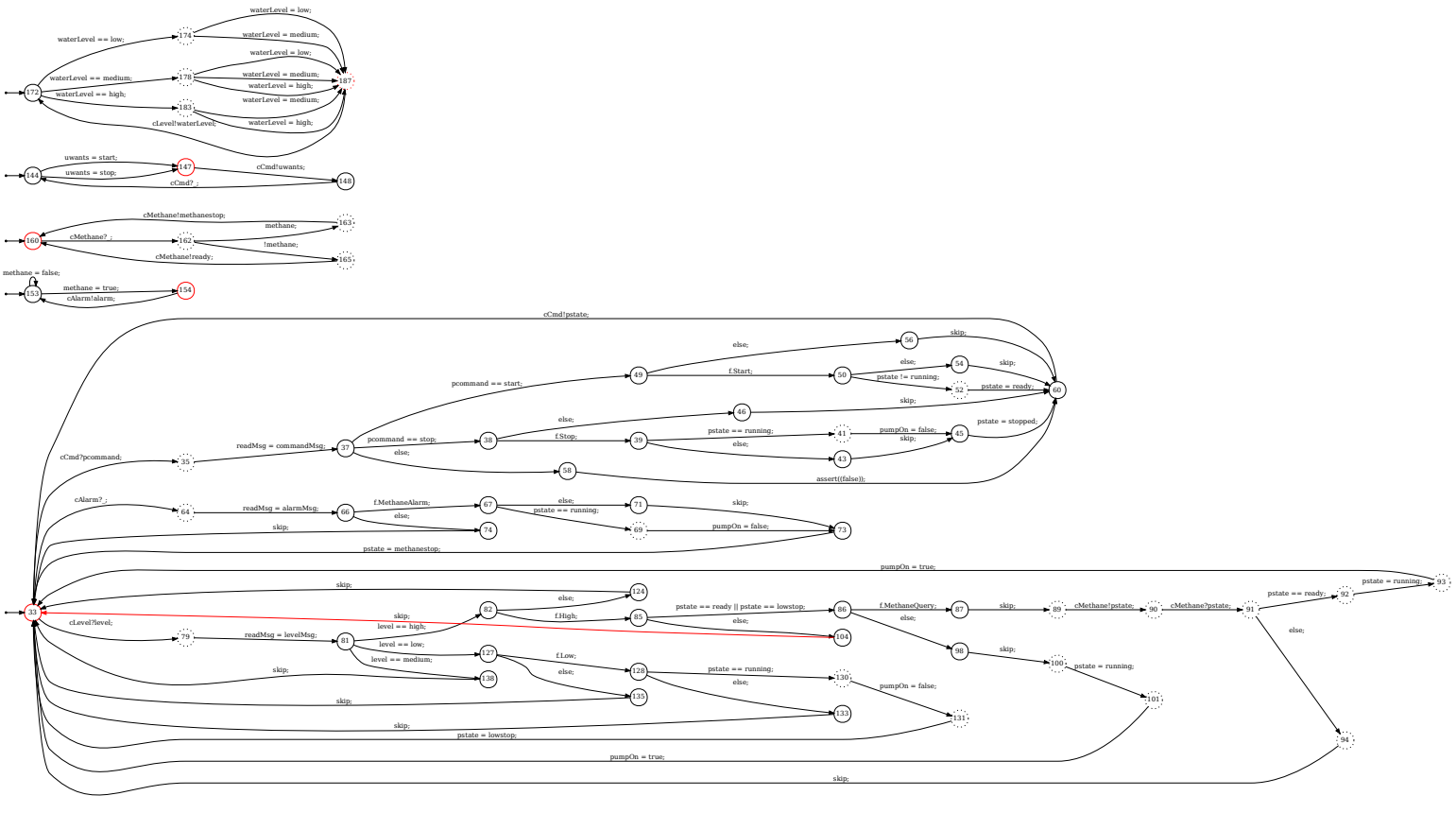
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cLevel!waterLevel;
187
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uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
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cMethane!methanestop;
cMethane? ;
162
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!methane;
163
cMethane!ready;
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methane = false;
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methane = true;
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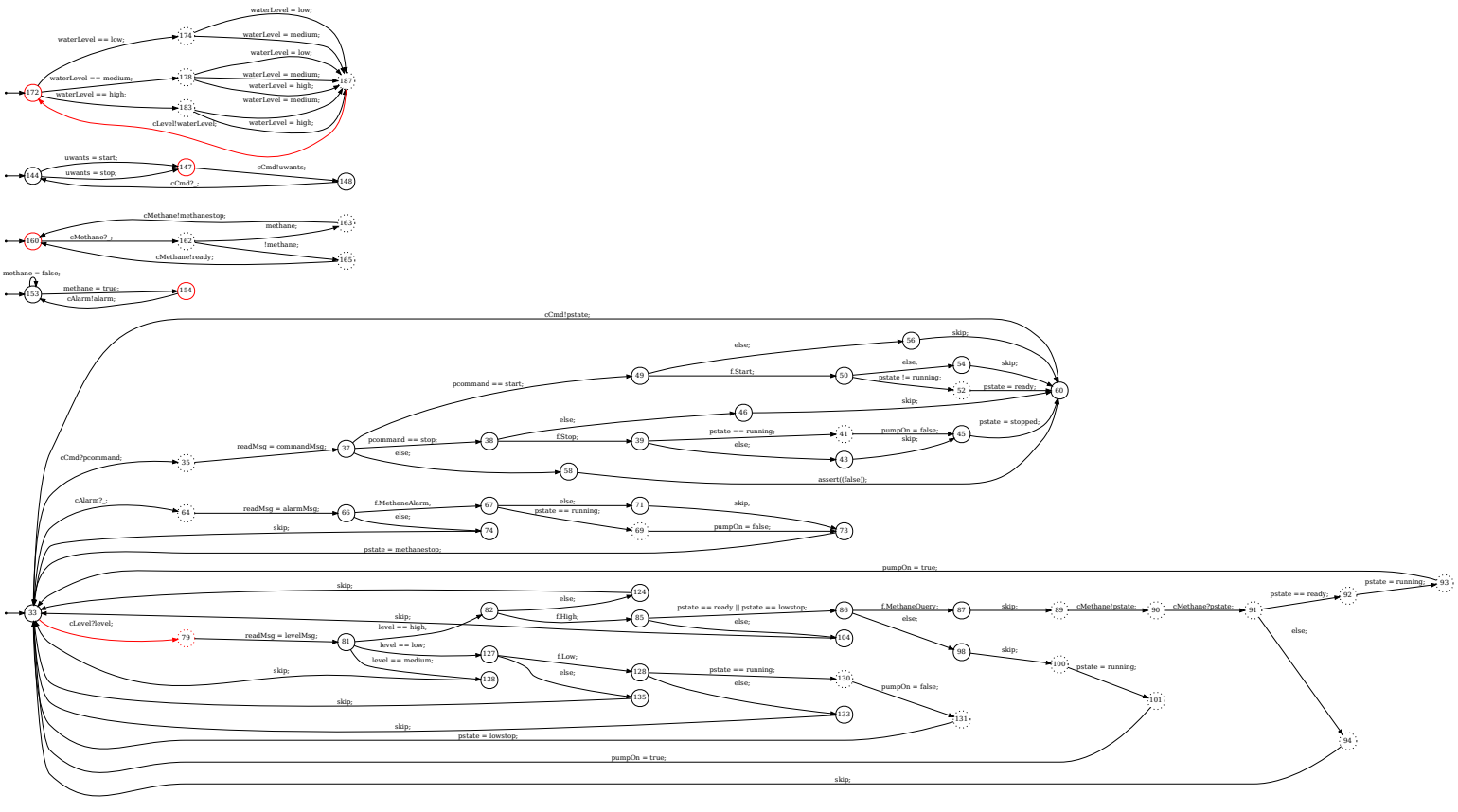
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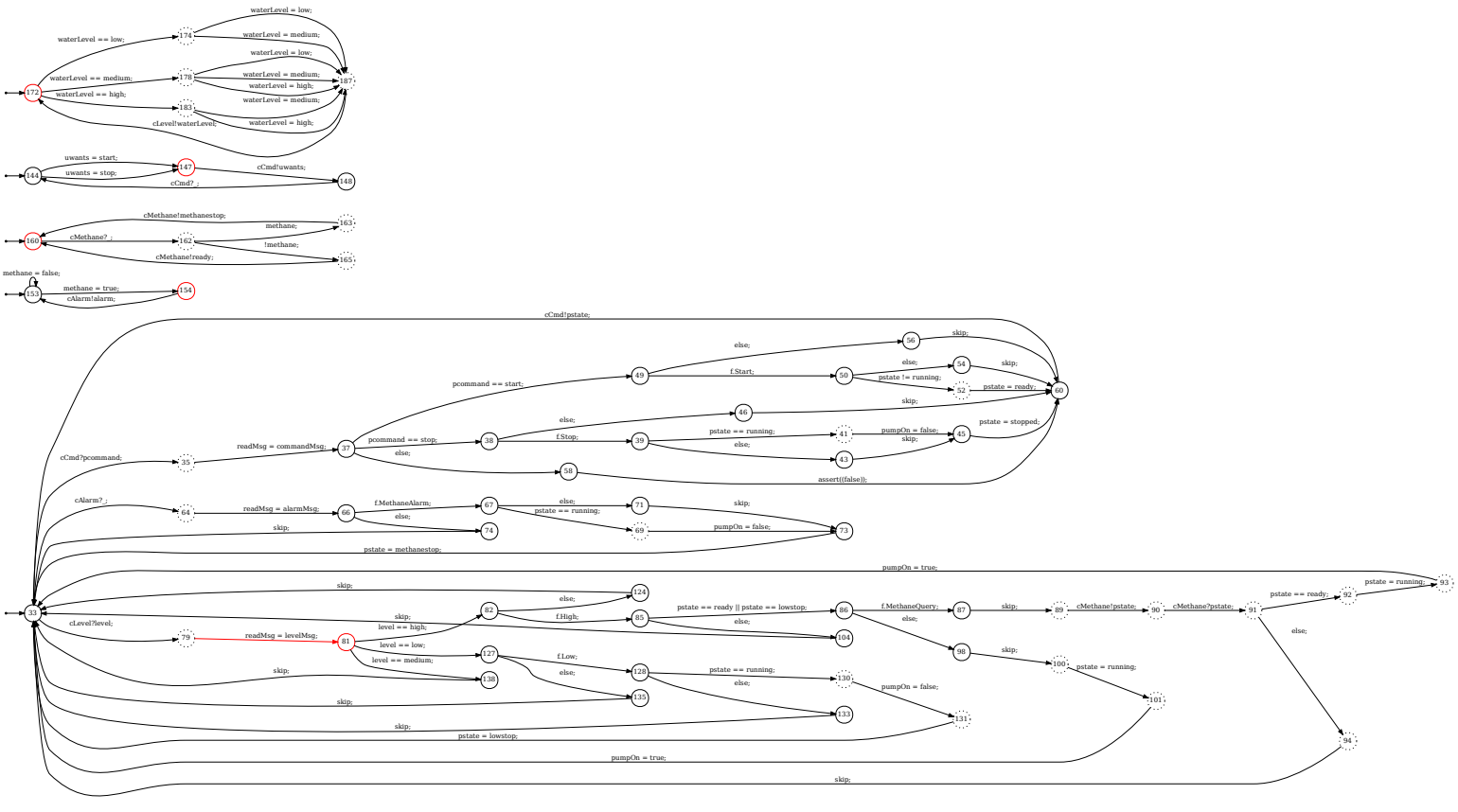
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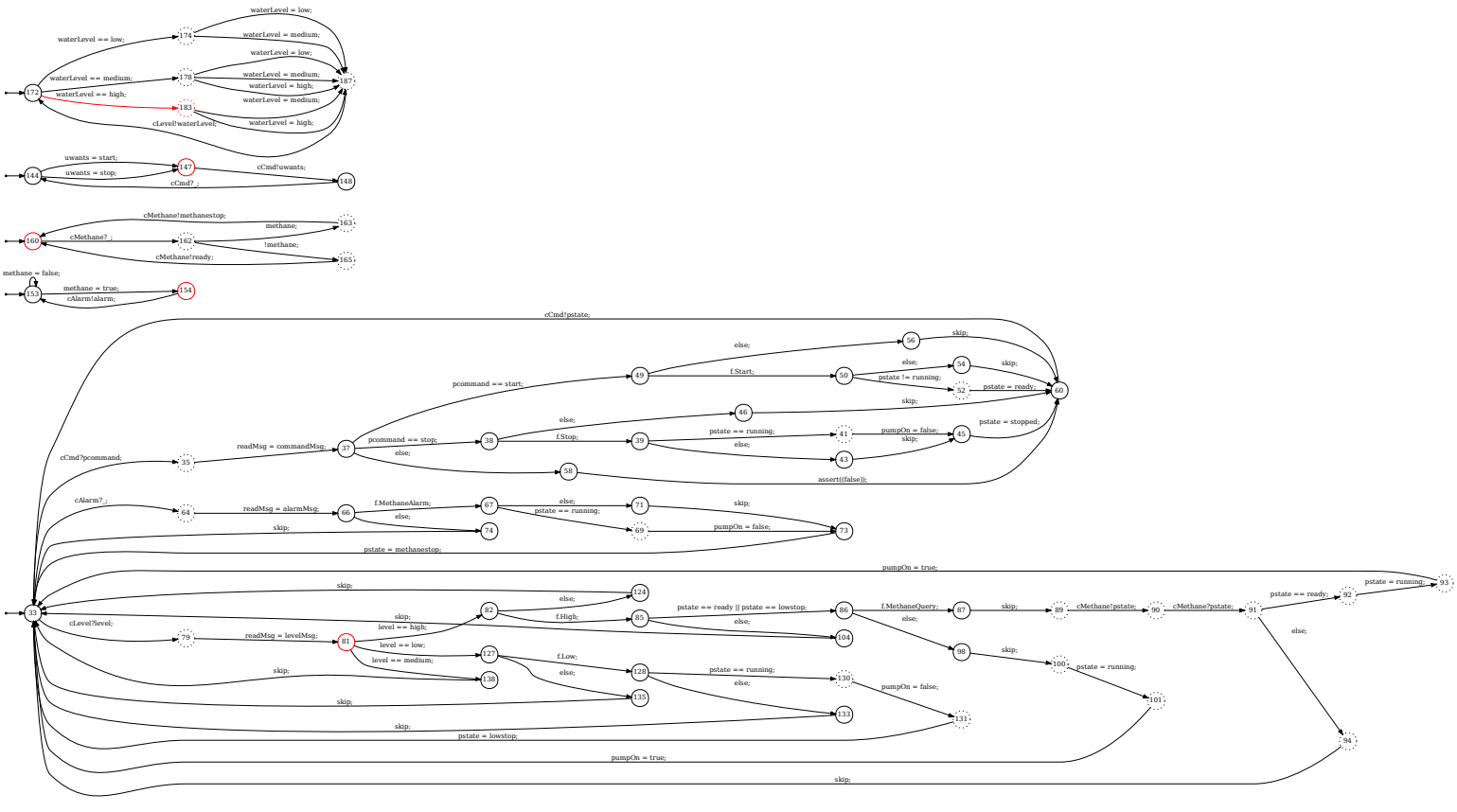
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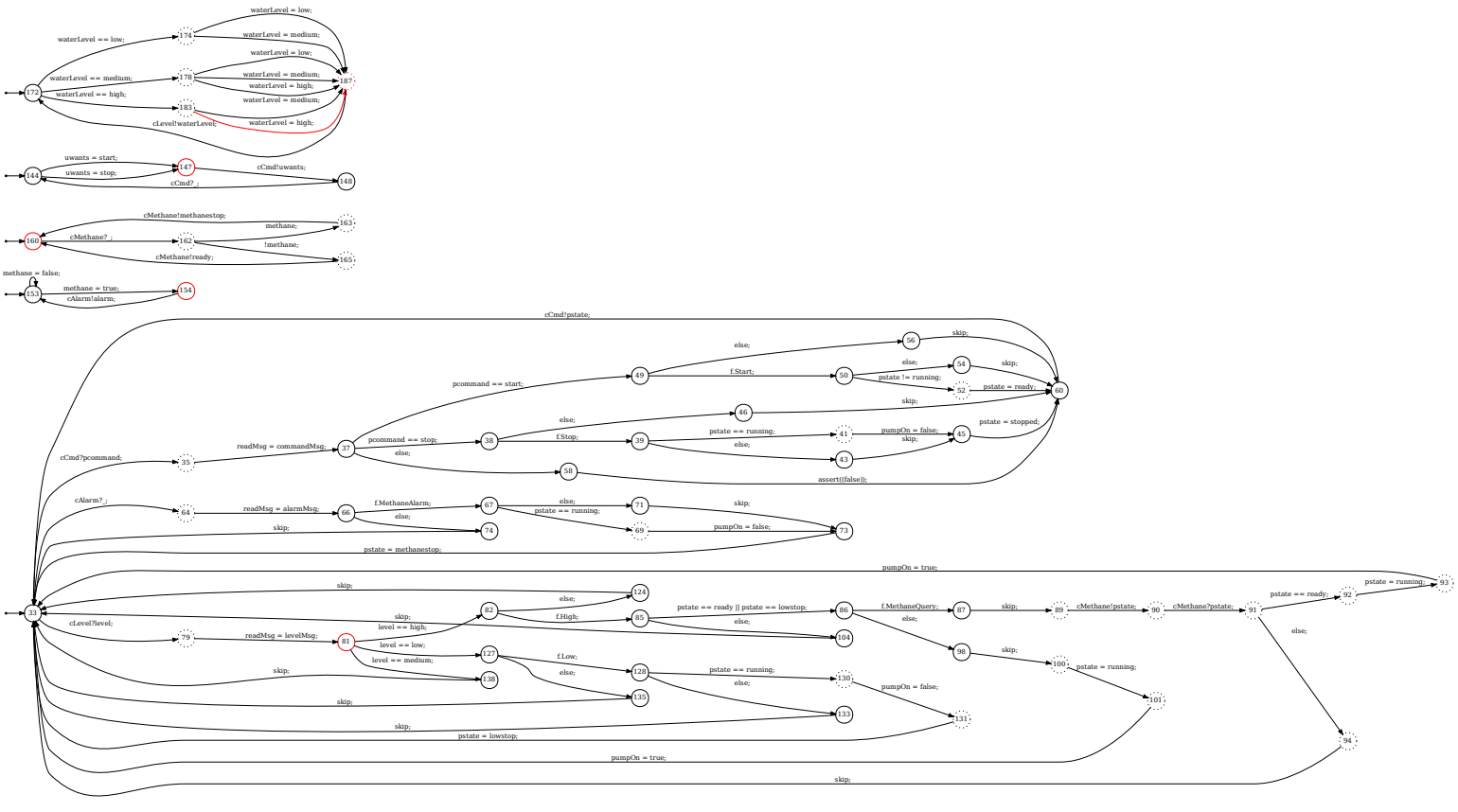
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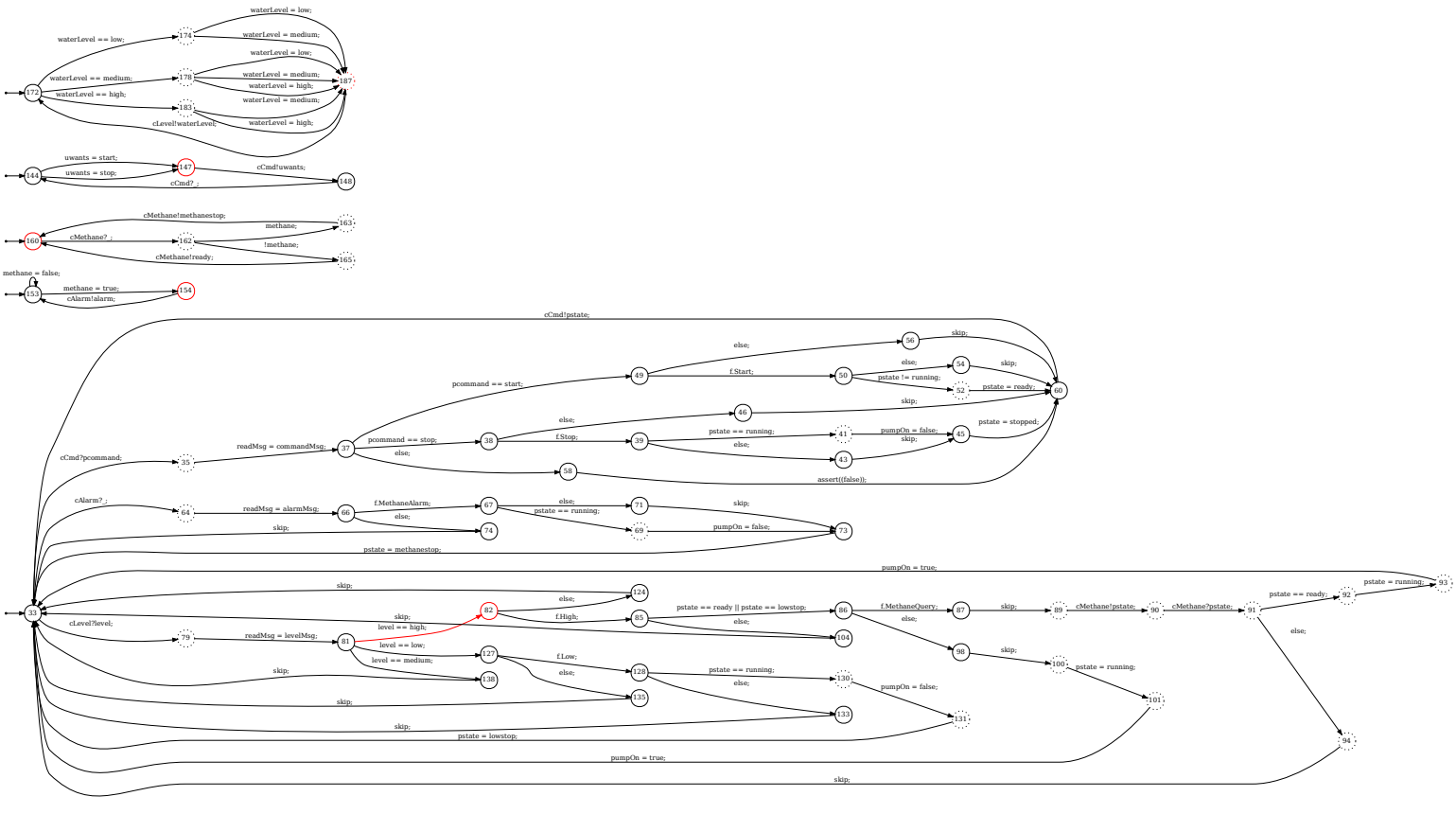
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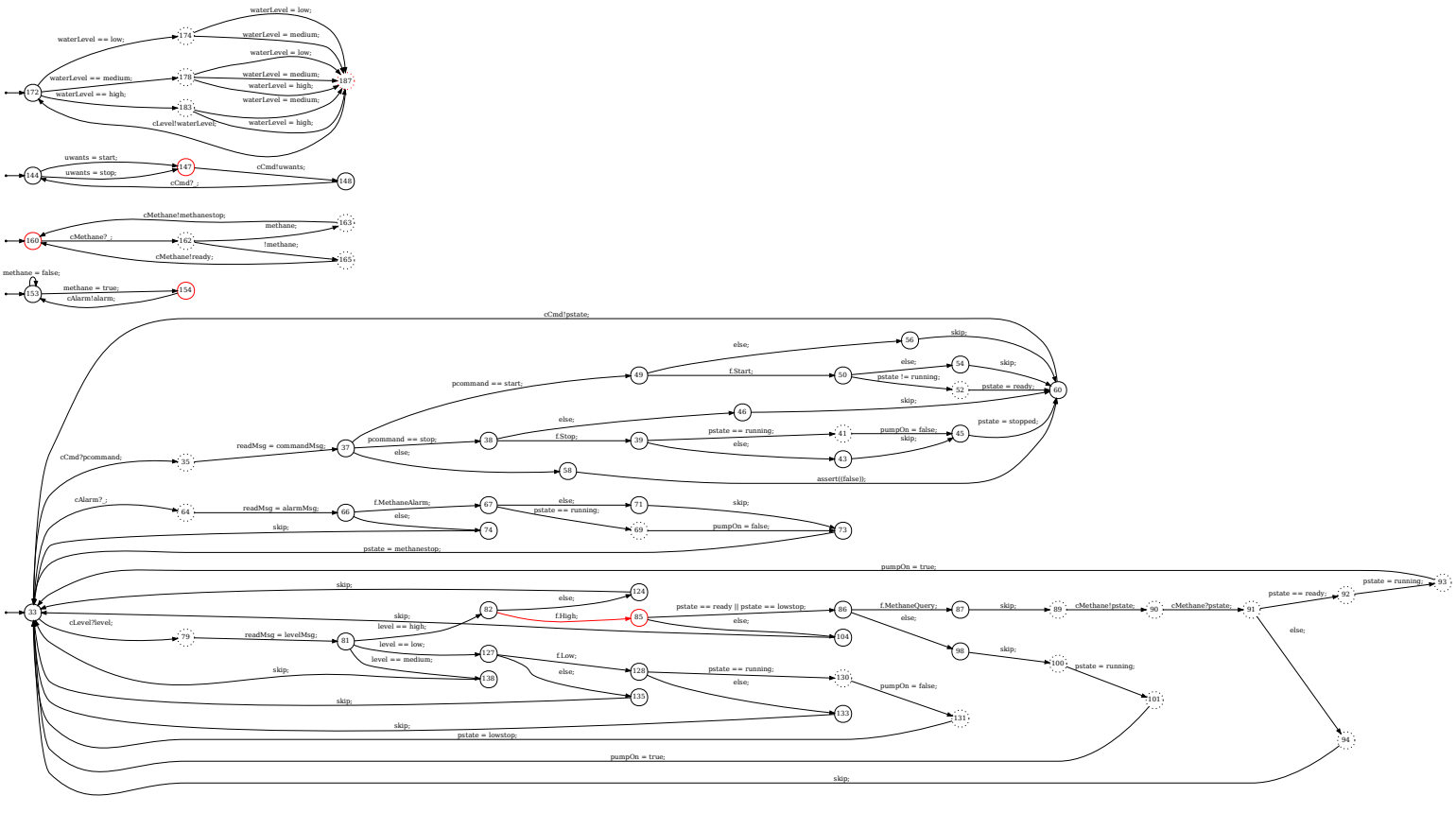
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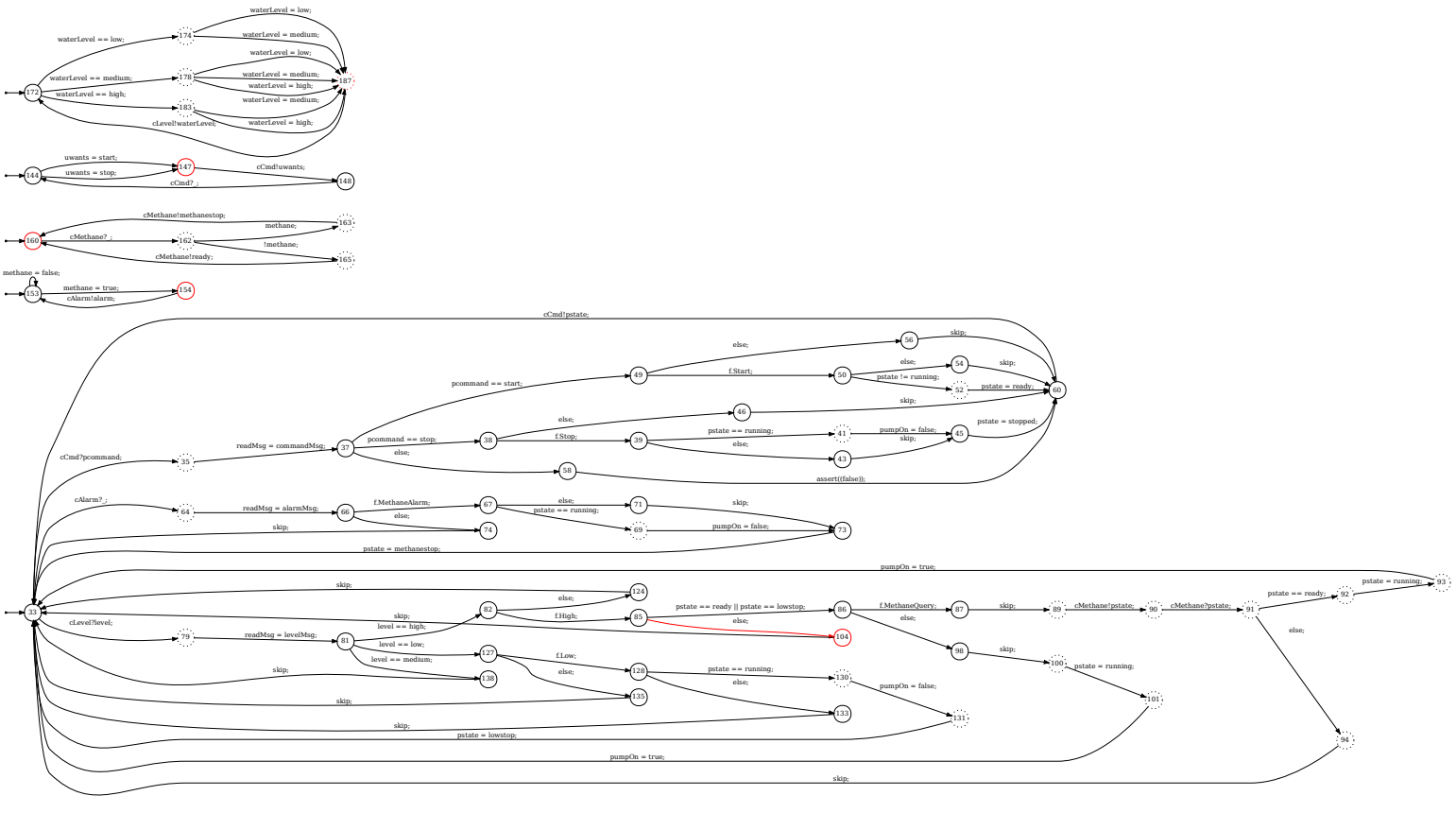
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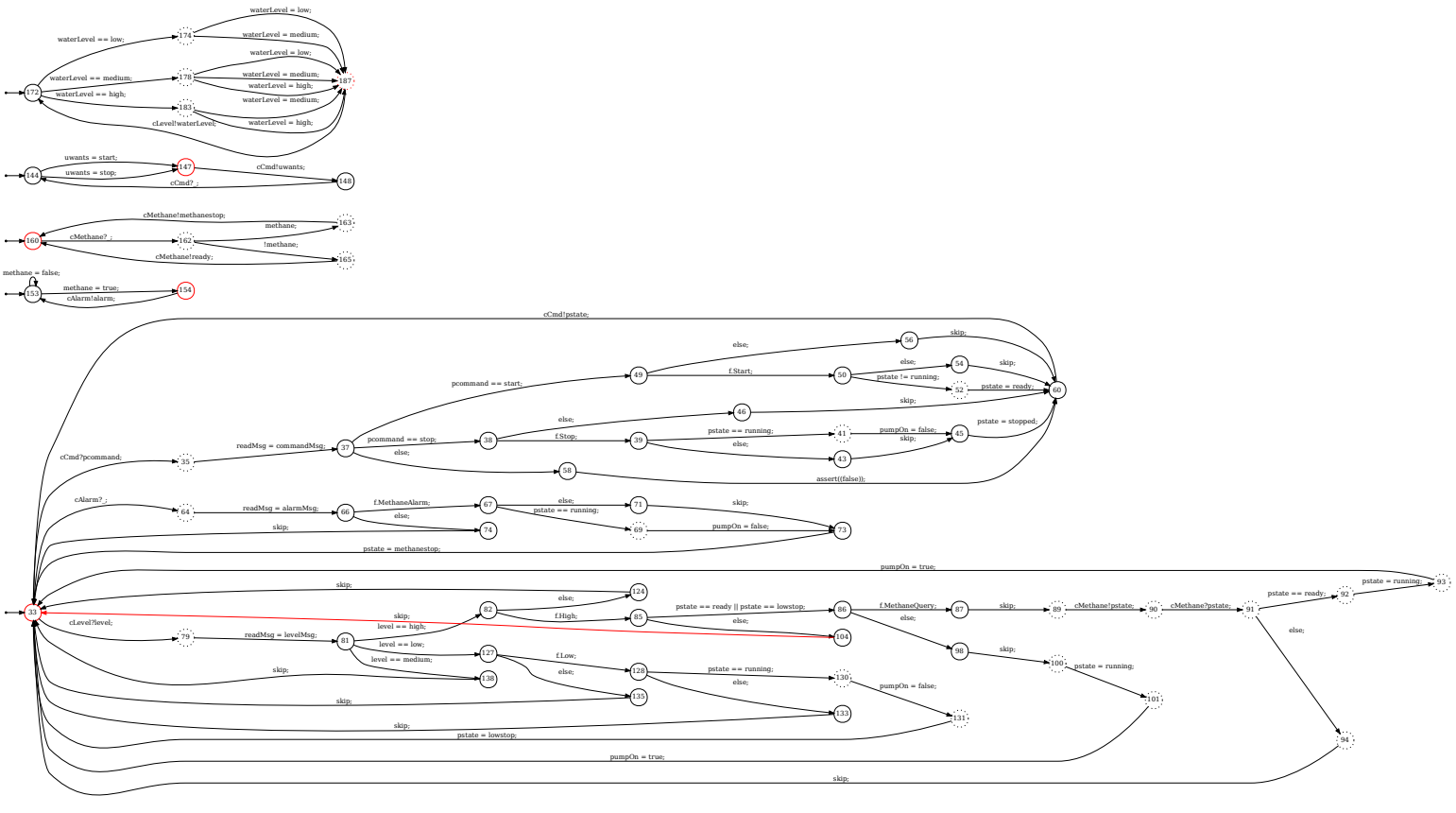
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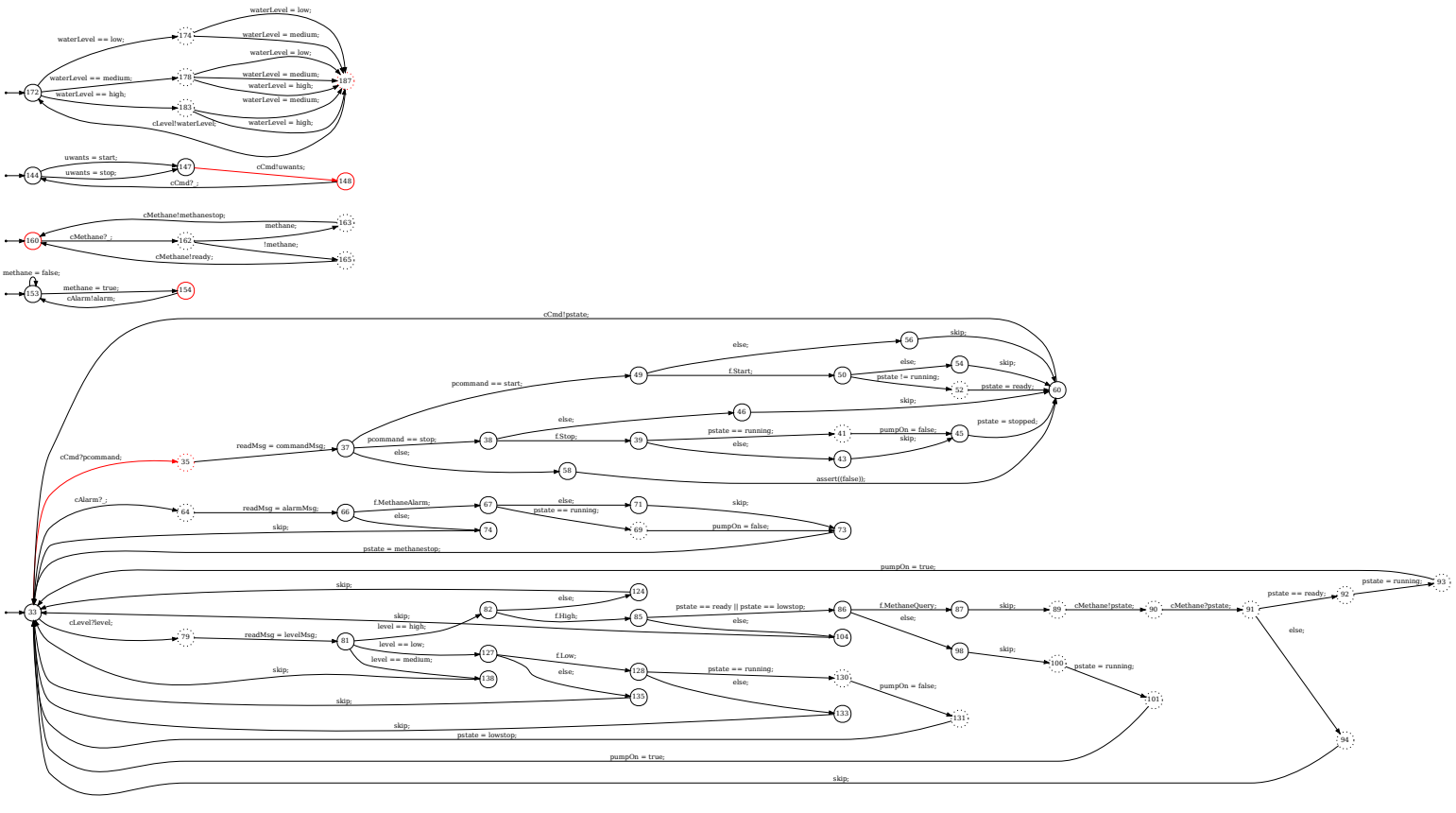
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
skip;
level == high;
else;
104
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
98
skip;
100
pstate = running;
101
94
skip;
138
skip;
135
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
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124
else;
82
f.High;
85
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138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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87
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89
cMethane!pstate;
90
cMethane?pstate;
91
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pstate = running;
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pstate = running;
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94
pumpOn = true;
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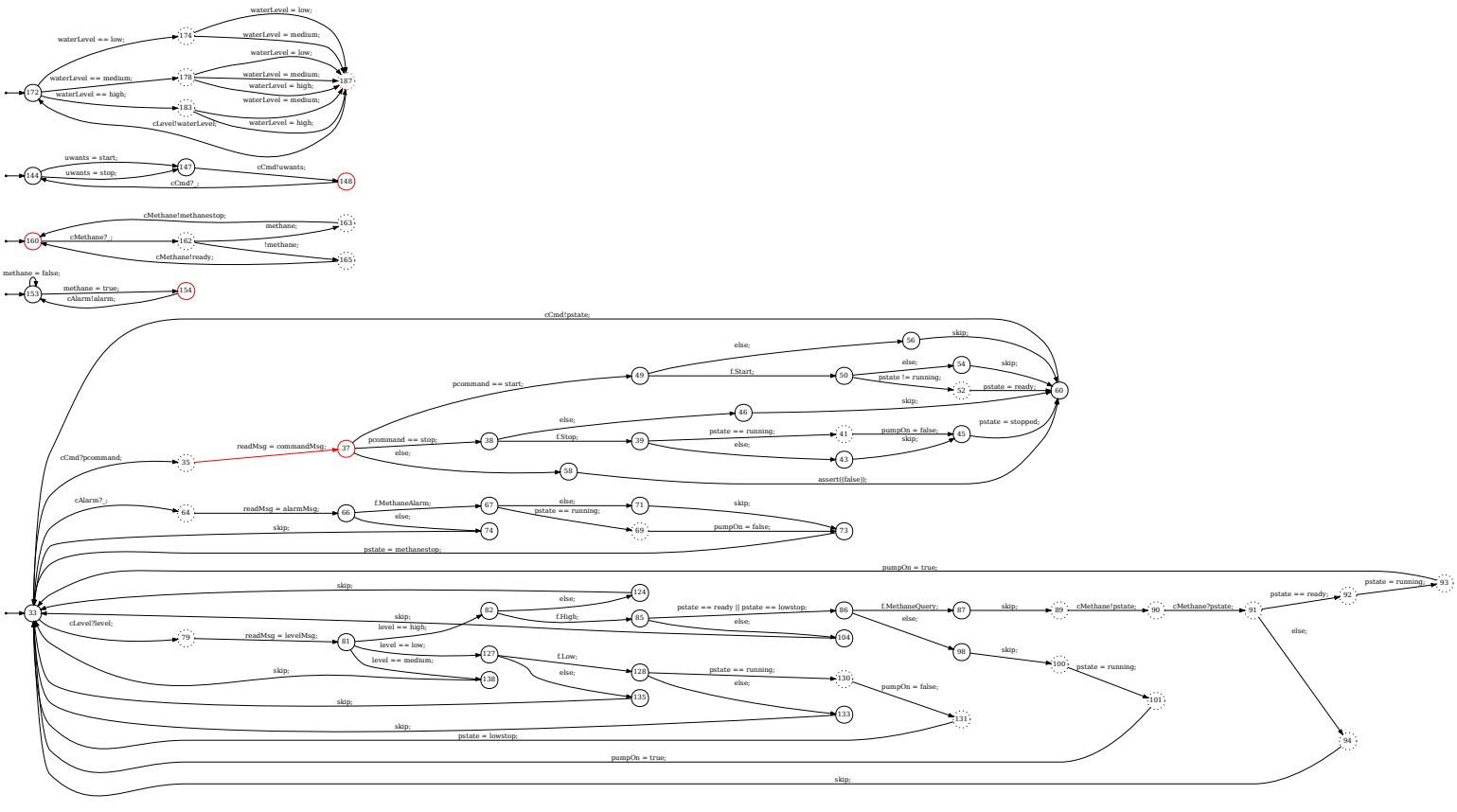
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waterLevel == low;
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waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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56
skip;
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pstate != running;
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f.Start;
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pumpOn = false;
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pstate = stopped;
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38
39
f.Stop;
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43
else;
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37
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58
assert((false));
readMsg = commandMsg;
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cCmd?pcommand;
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67
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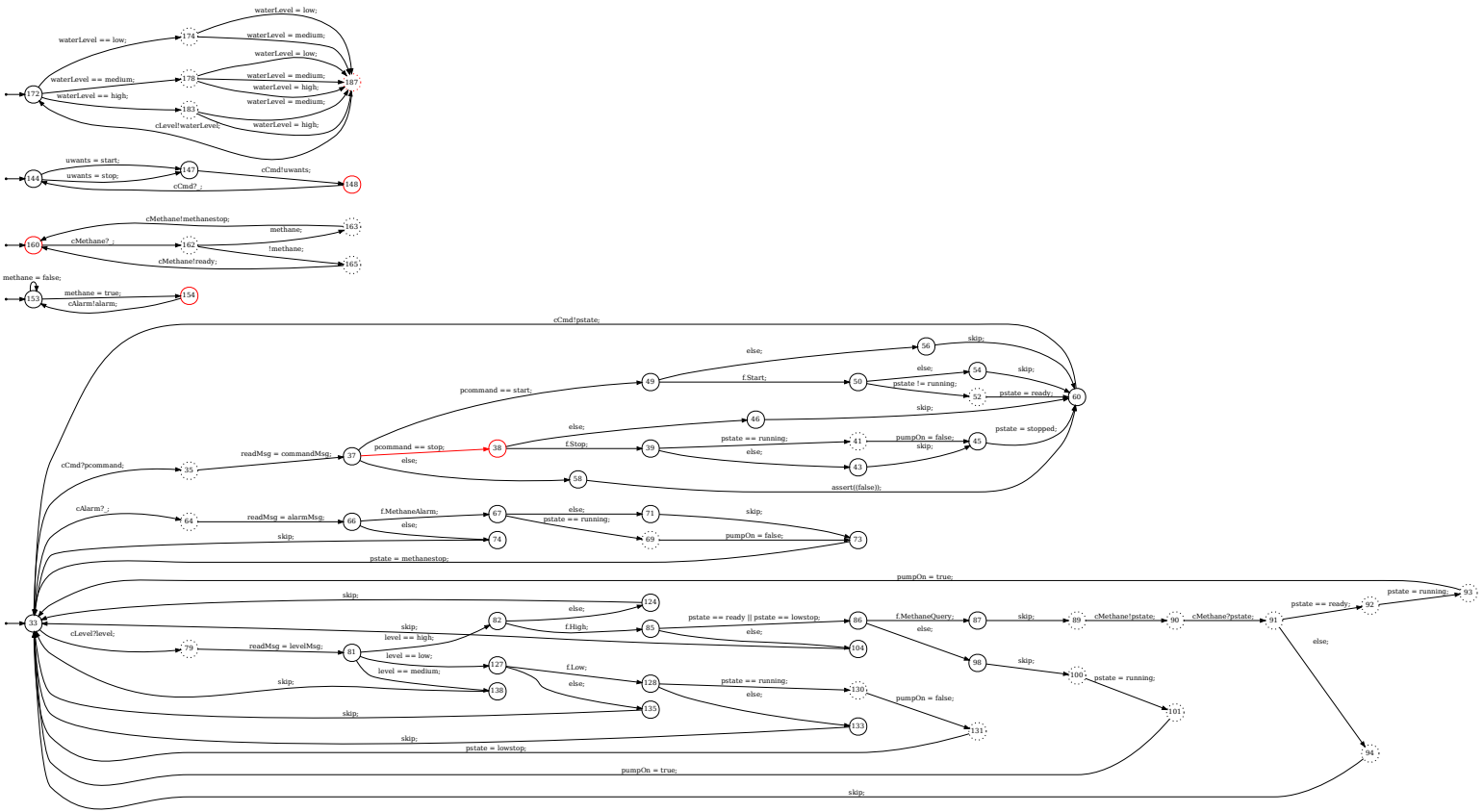
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skip;
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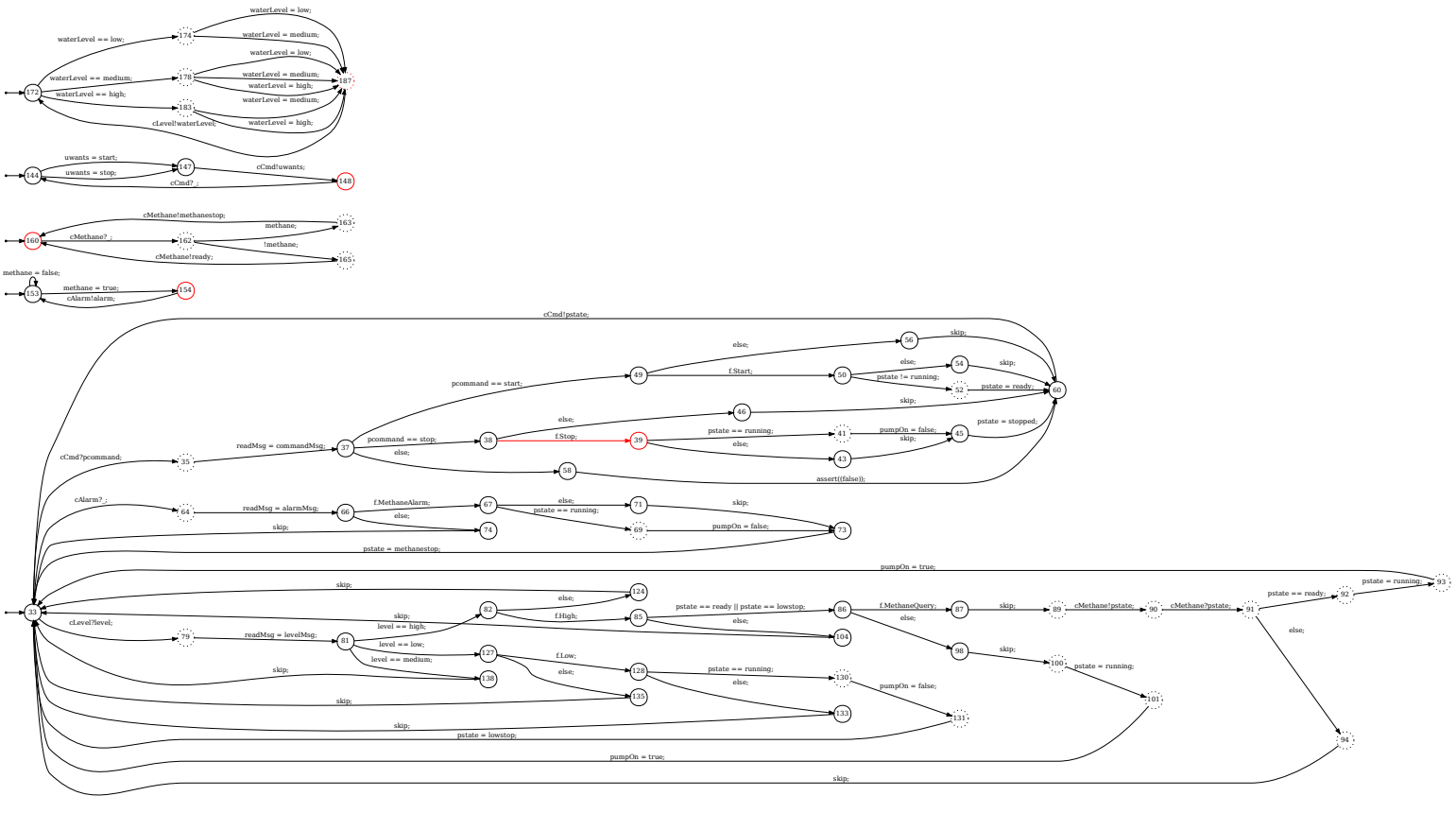
skip;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f.Start;
pcommand == start;
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f.Stop;
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pstate == running;
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pstate = stopped;
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else;
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else;
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131
138
135
133
skip;
skip;
skip;
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pstate = running;
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else;
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skip;
100
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101
94
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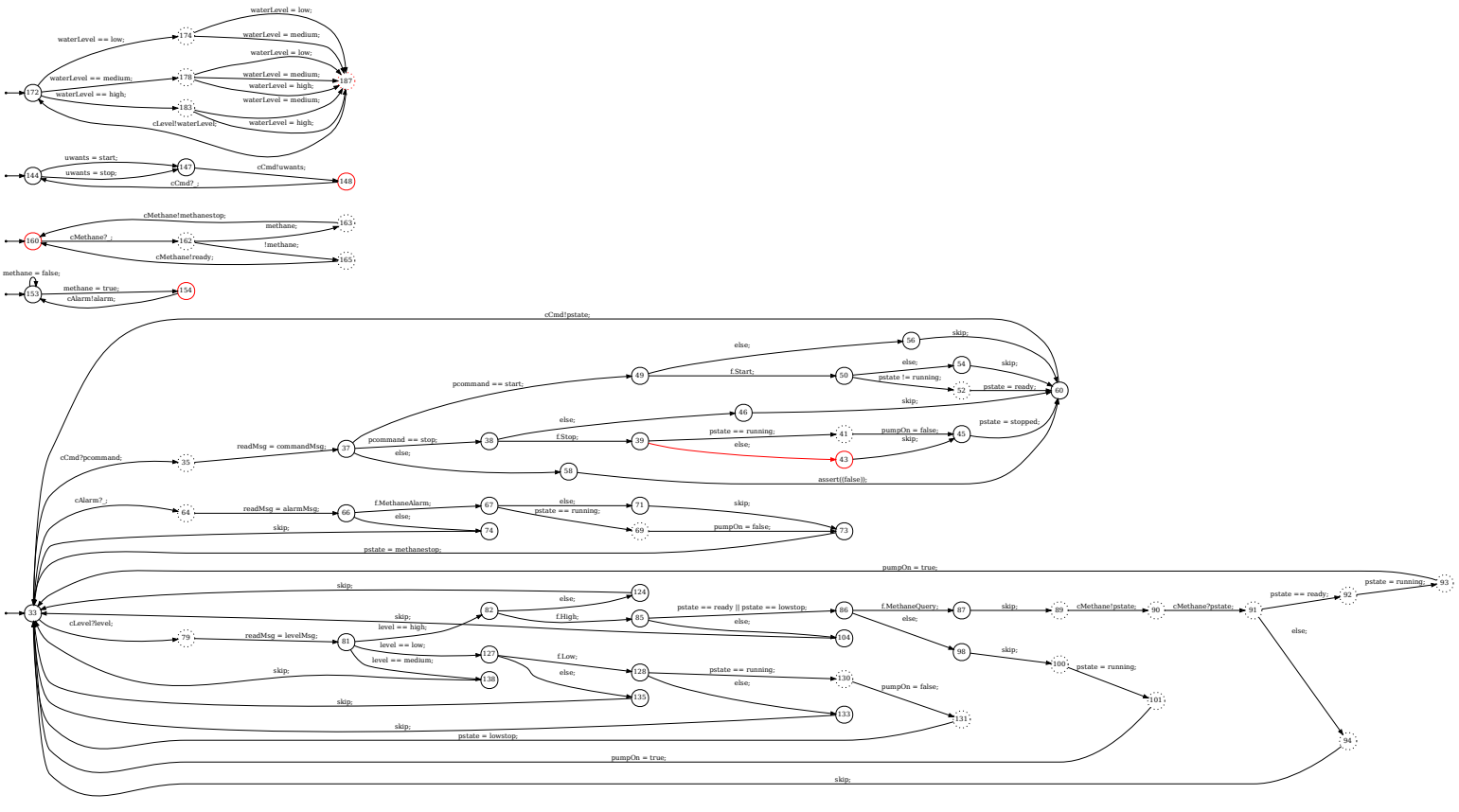
skip;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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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46
49
50
52
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56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
66
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
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104
124
127
128
130
131
133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
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else;
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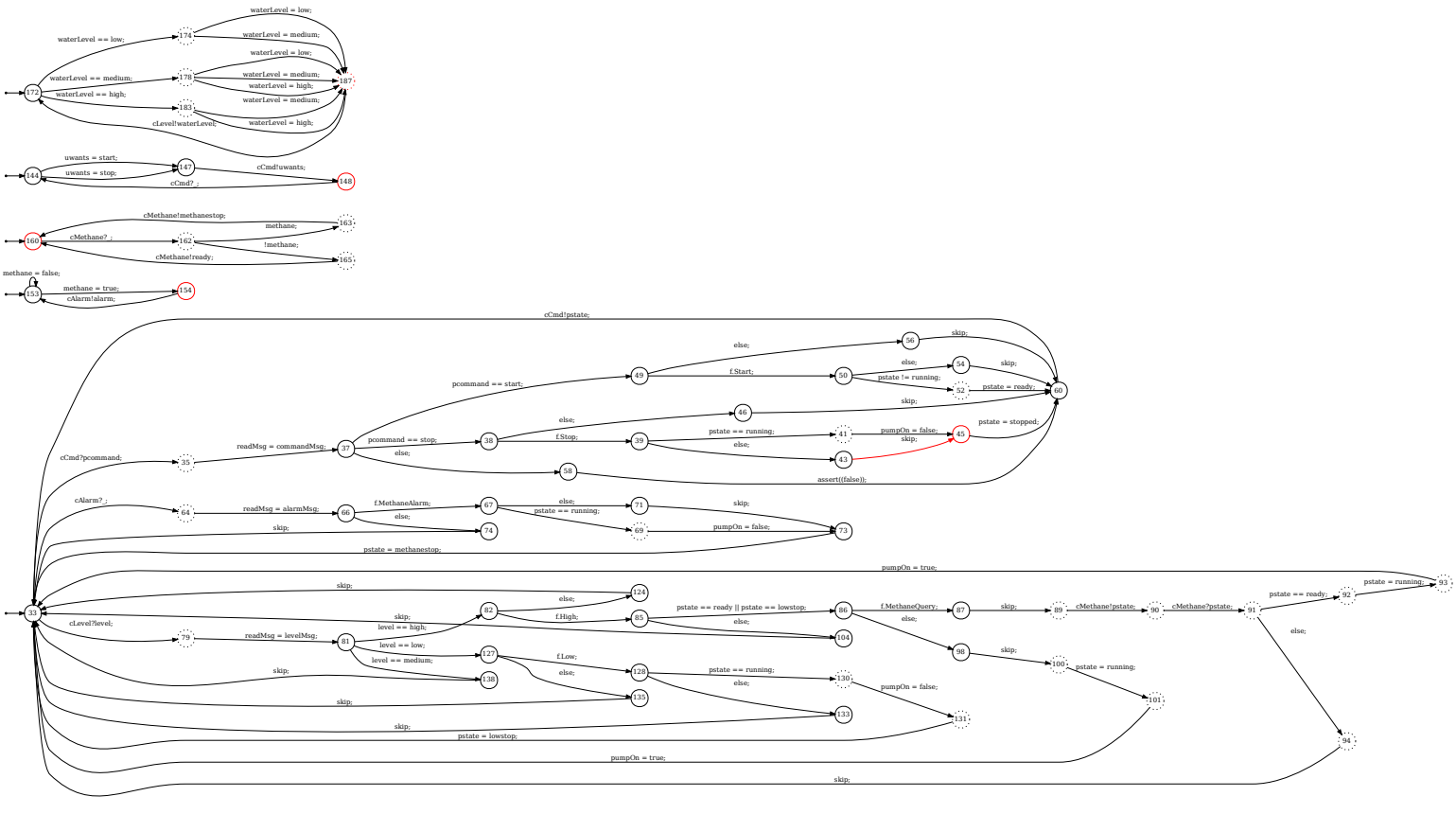
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waterLevel == medium;
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waterLevel = medium;
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waterLevel = medium;
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uwants = start;
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cCmd?pcommand;
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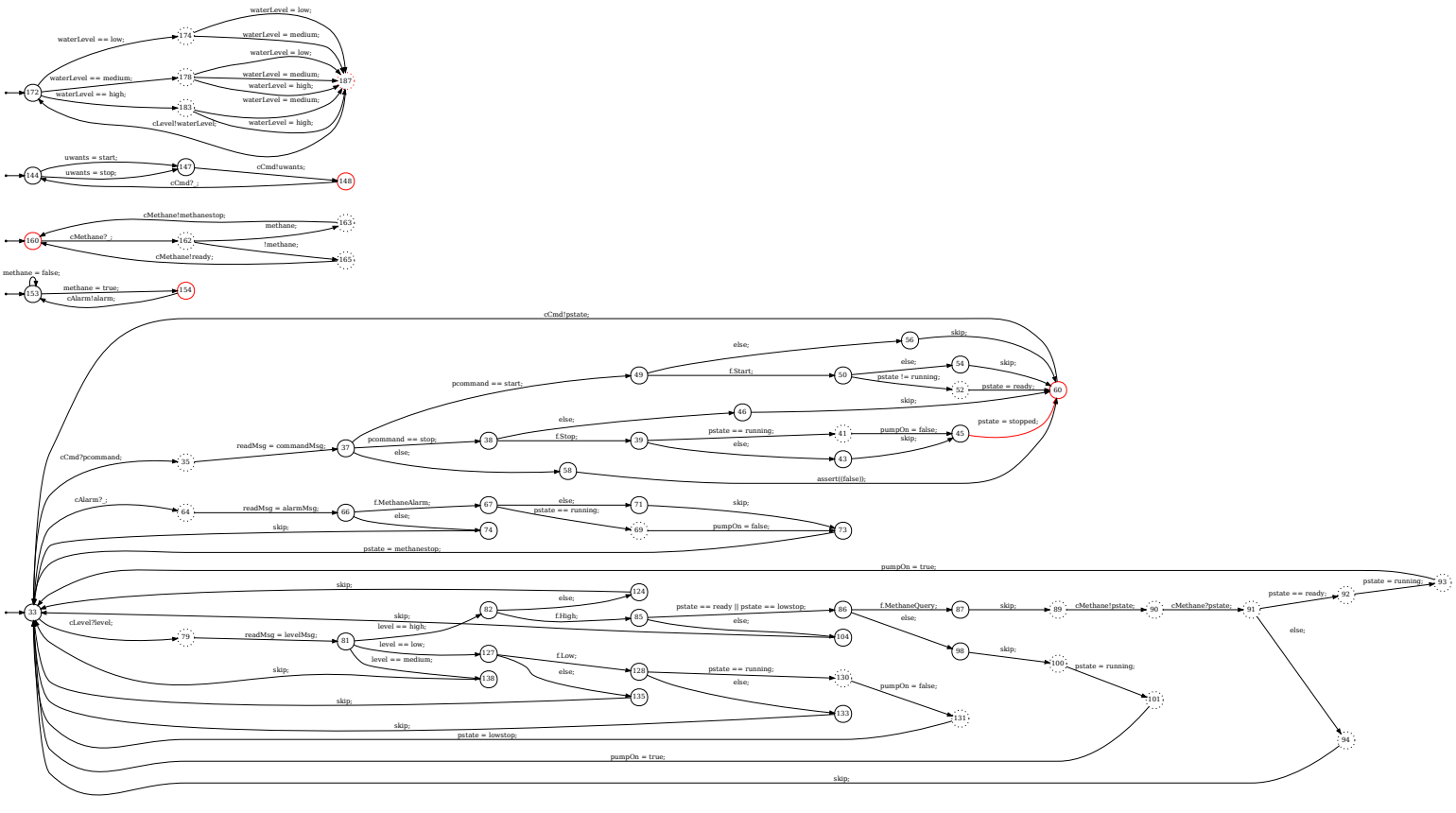
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waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
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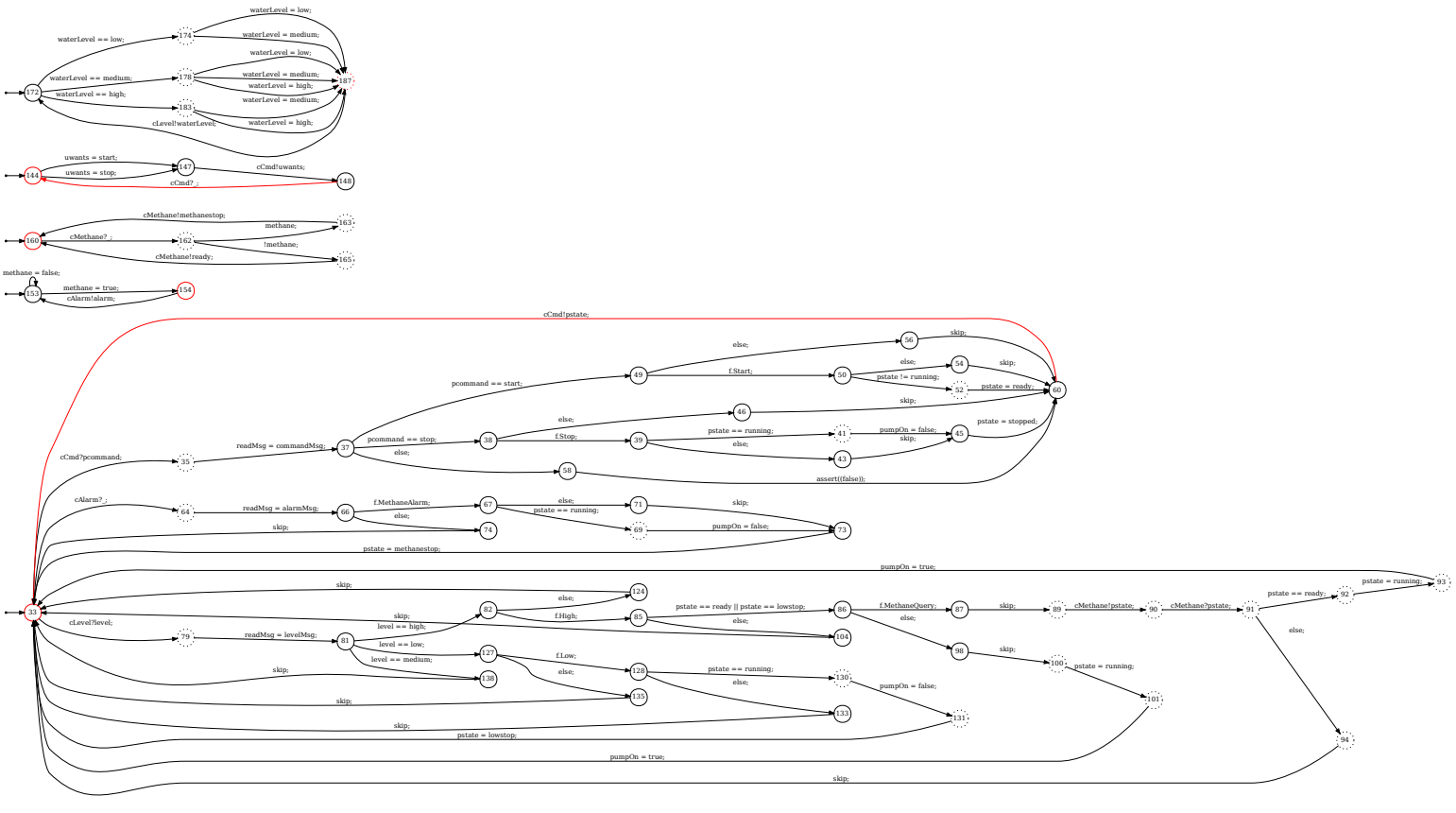
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waterLevel == low;
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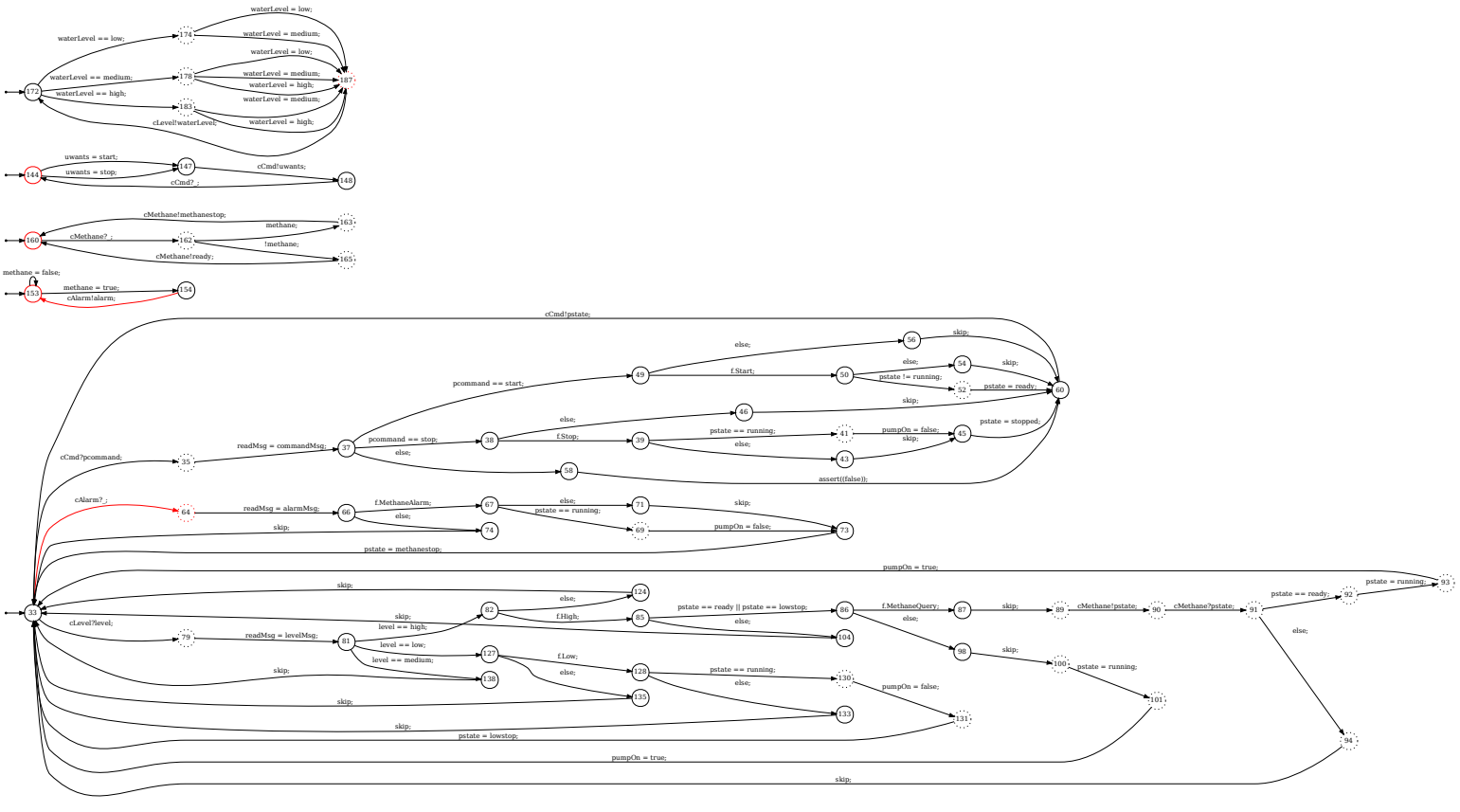
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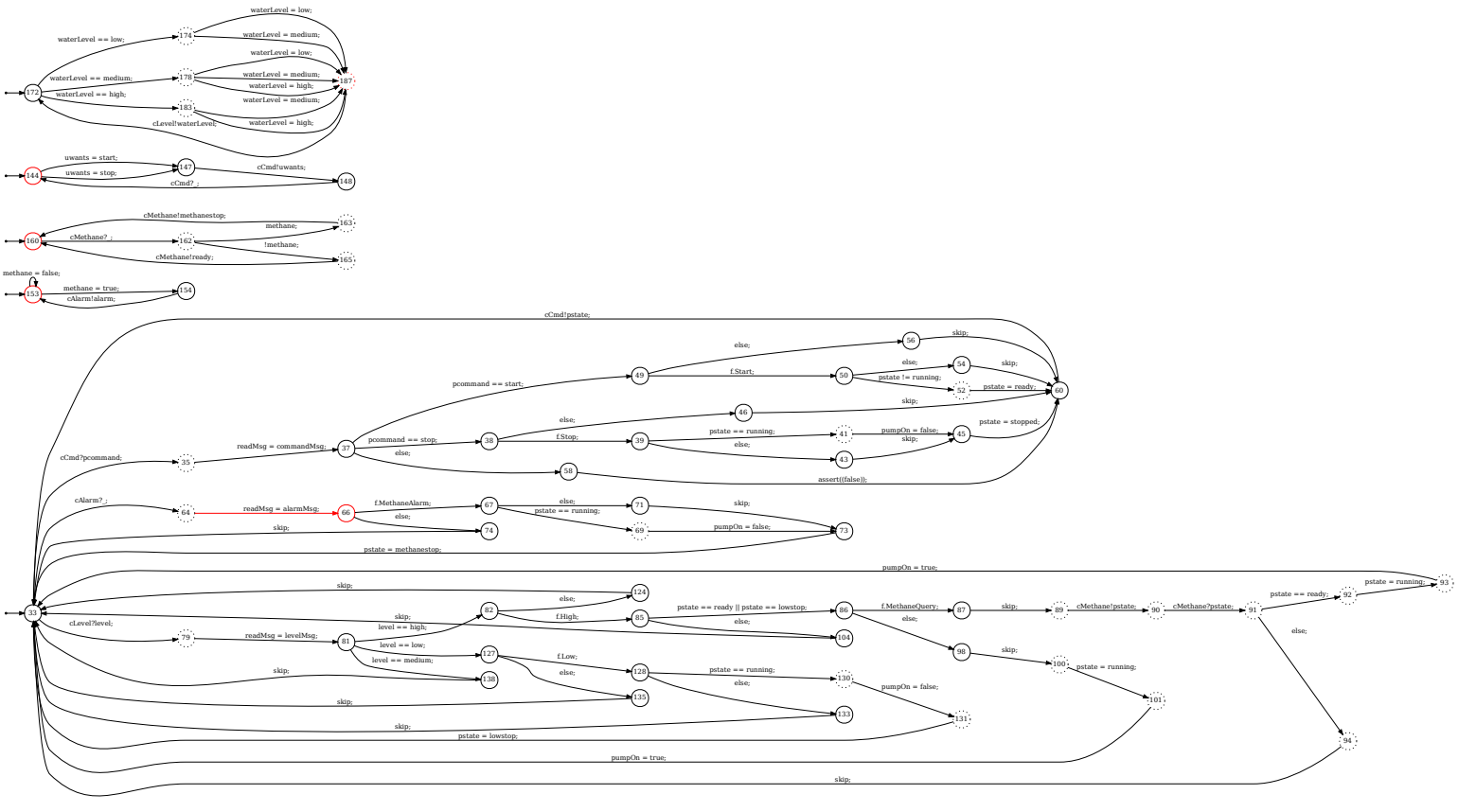
skip;
level == high;
level == low;
level == medium;
104
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
98
skip;
100
pstate = running;
101
138
135
133
131
94
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
176
waterLevel = medium;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
pcommand == stop;
else;
37
readMsg = commandMsg;
35
cCmd?pcommand;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
98
skip;
100
pstate = running;
101
pstate == running;
else;
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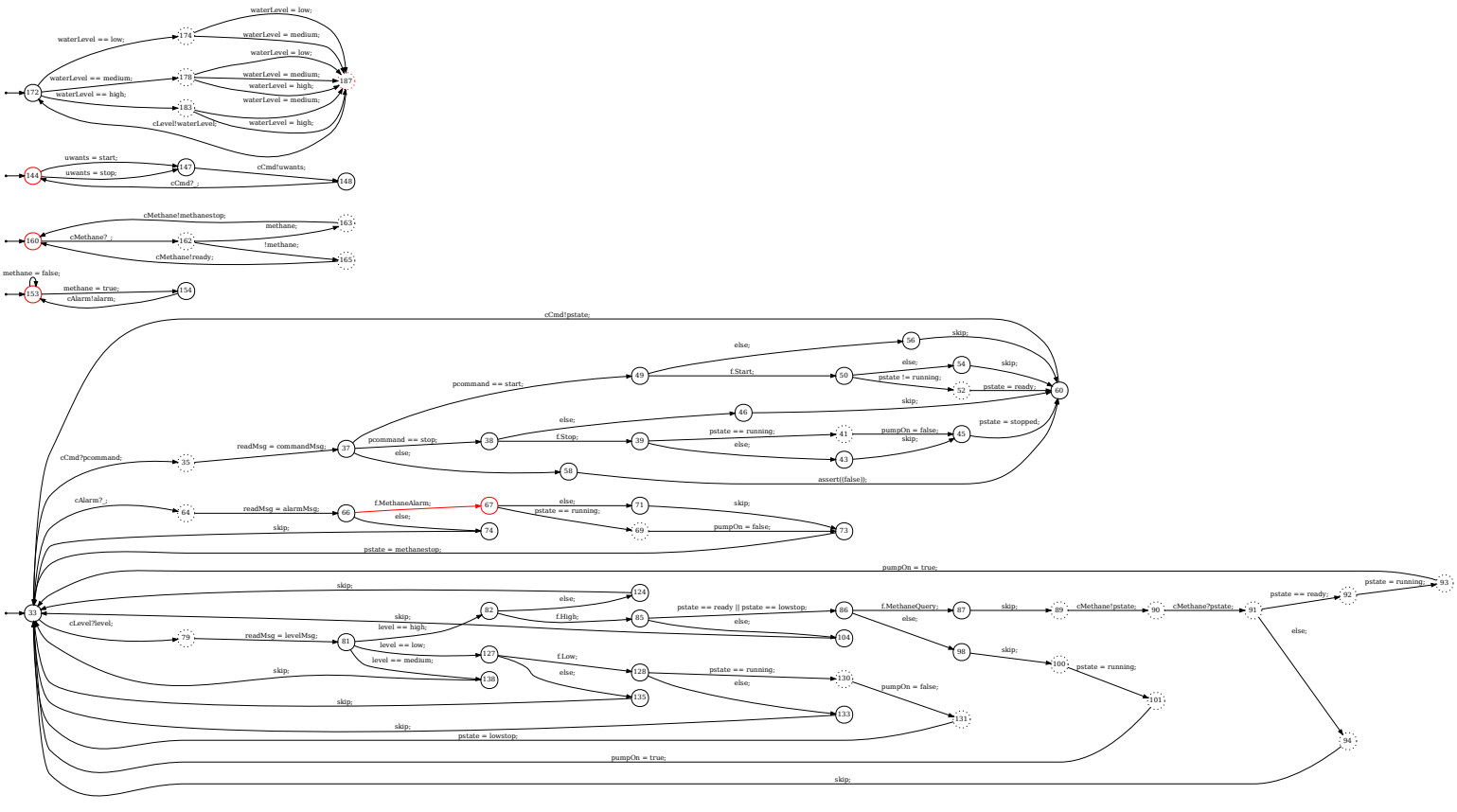
pumpOn = false;
133
131
94
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
52
pstate != running;
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
pstate == running;
else;
43
38
39
f.Stop;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
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130
pumpOn = false;
133
131
98
skip;
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pstate = running;
101
94
skip;
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skip;
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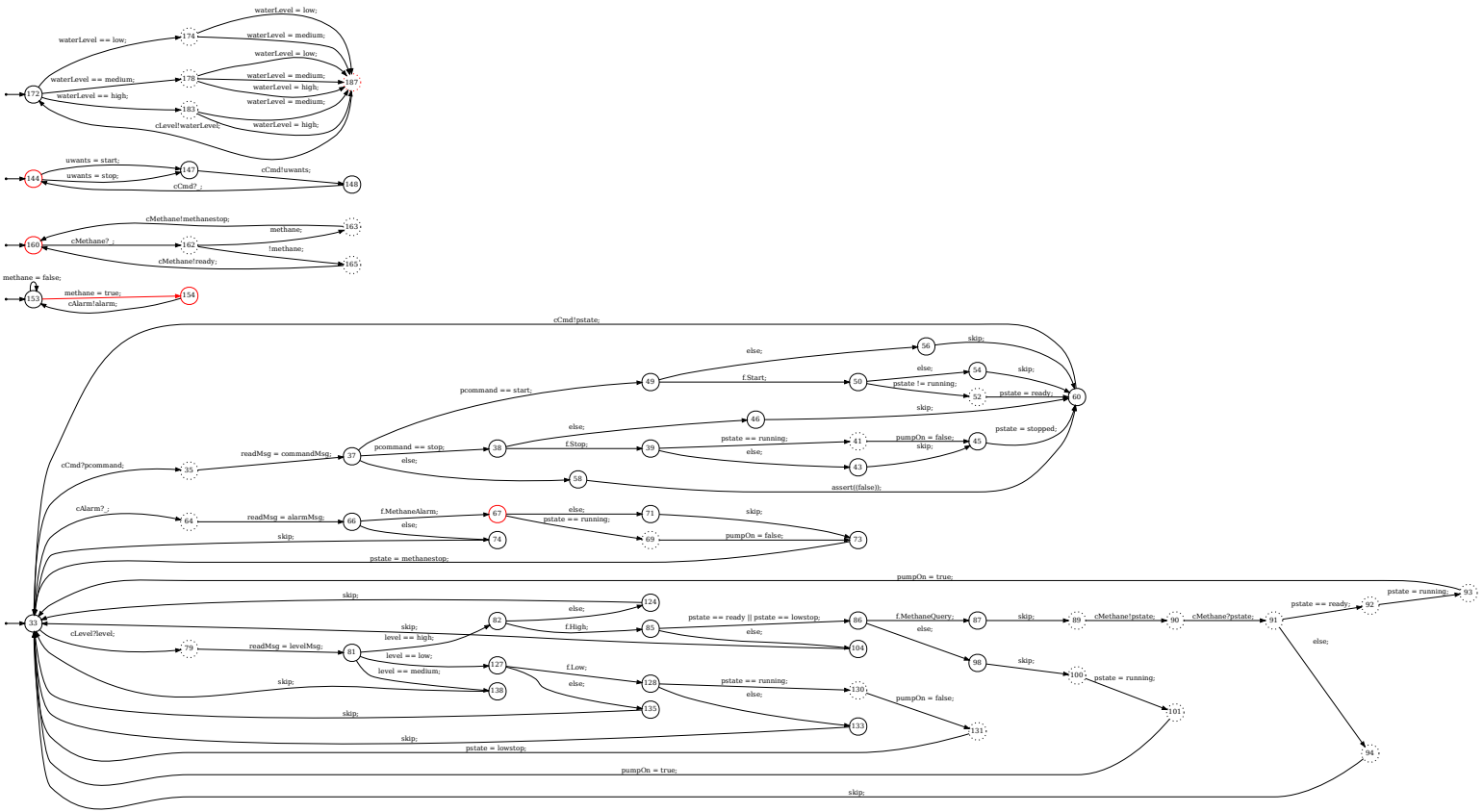
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
39
f.Stop;
38
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
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pstate = methanestop;
pumpOn = true;
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level == medium;
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f.Low;
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128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
131
133
pumpOn = false;
pumpOn = true;
skip;
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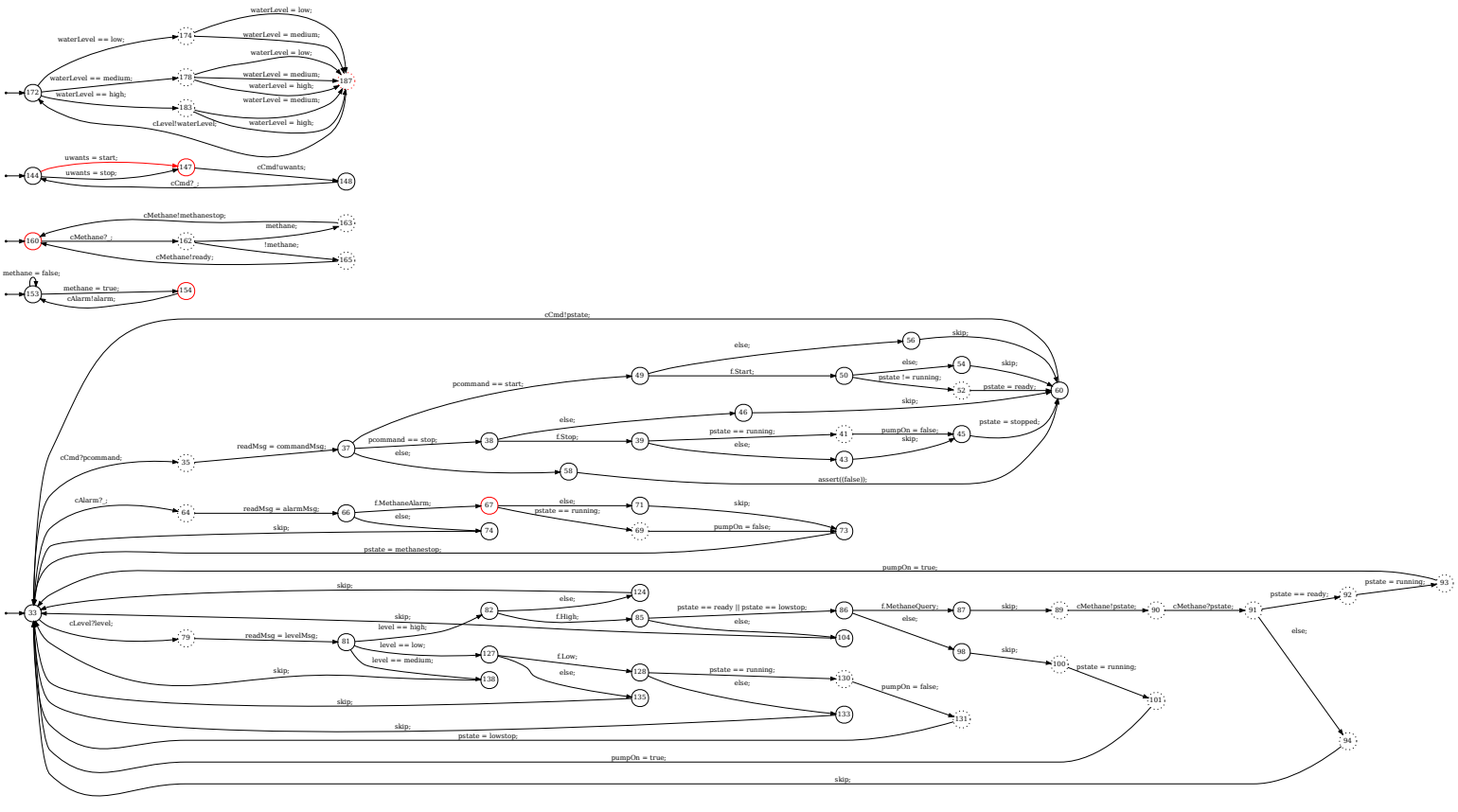
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
94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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
else;
43
skip;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
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pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
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skip;
124
else;
82
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85
else;
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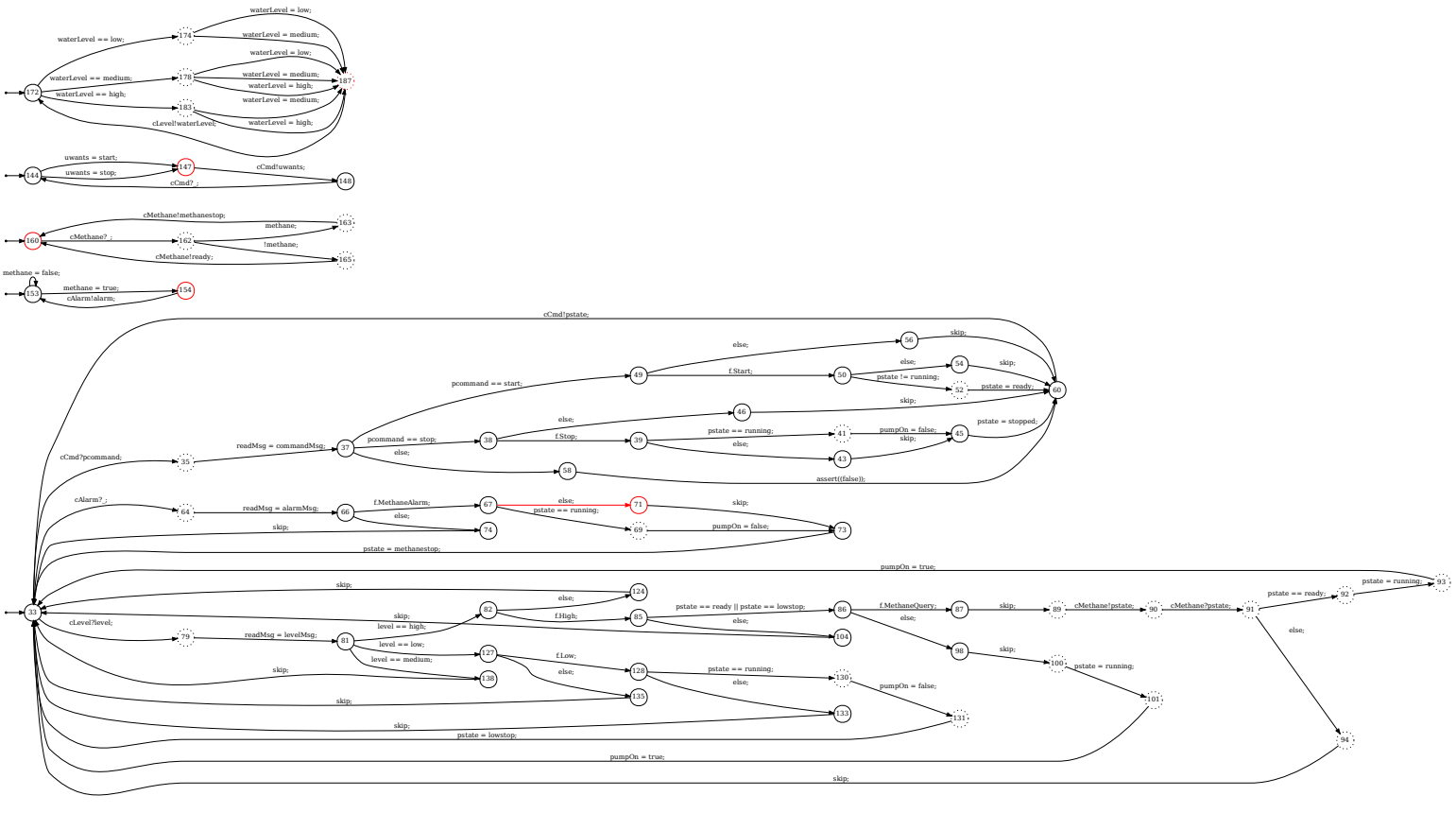
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
131
133
pumpOn = false;
pstate == running;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
94
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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100
101
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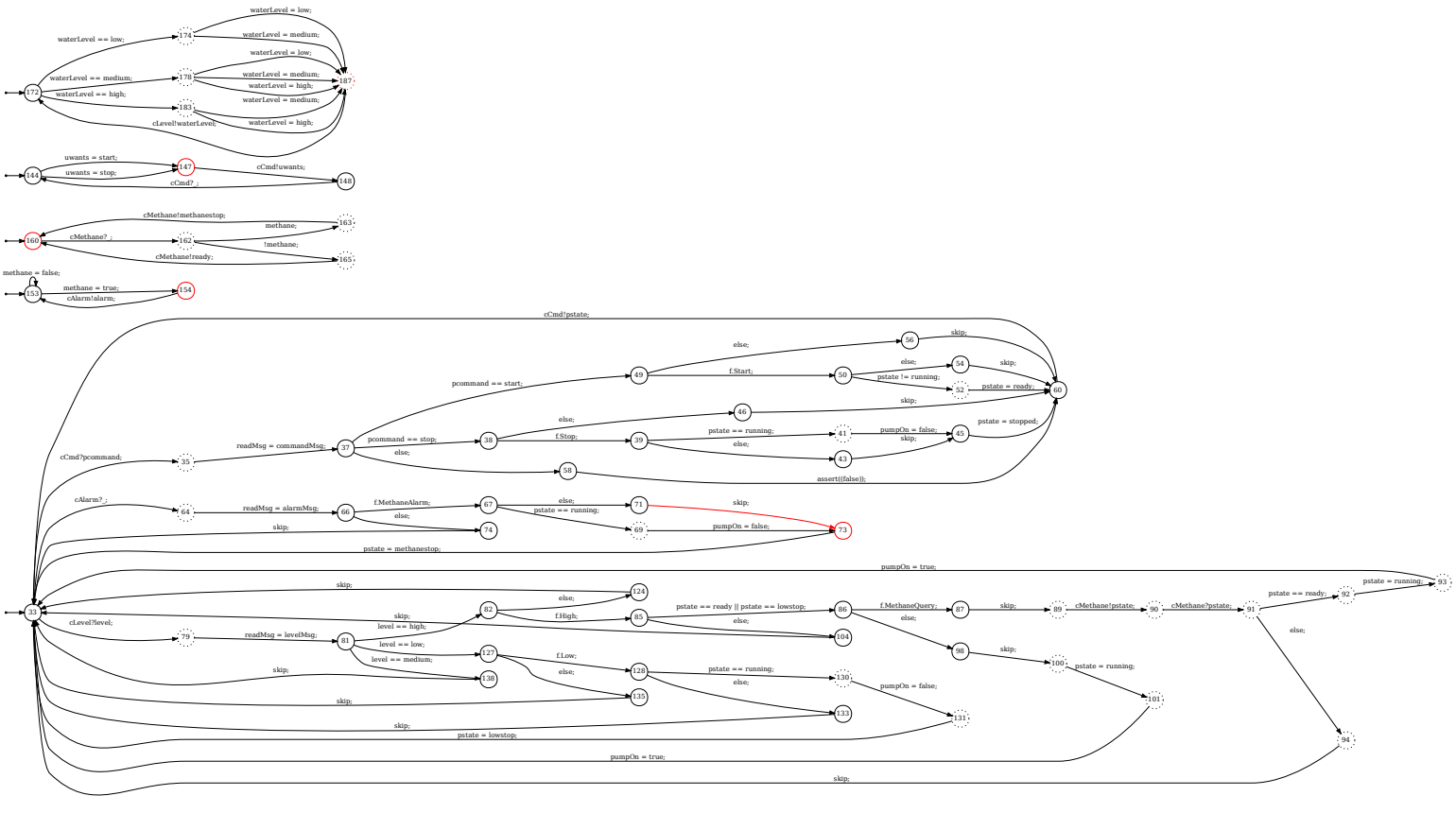
124
127
128
130
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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81
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87
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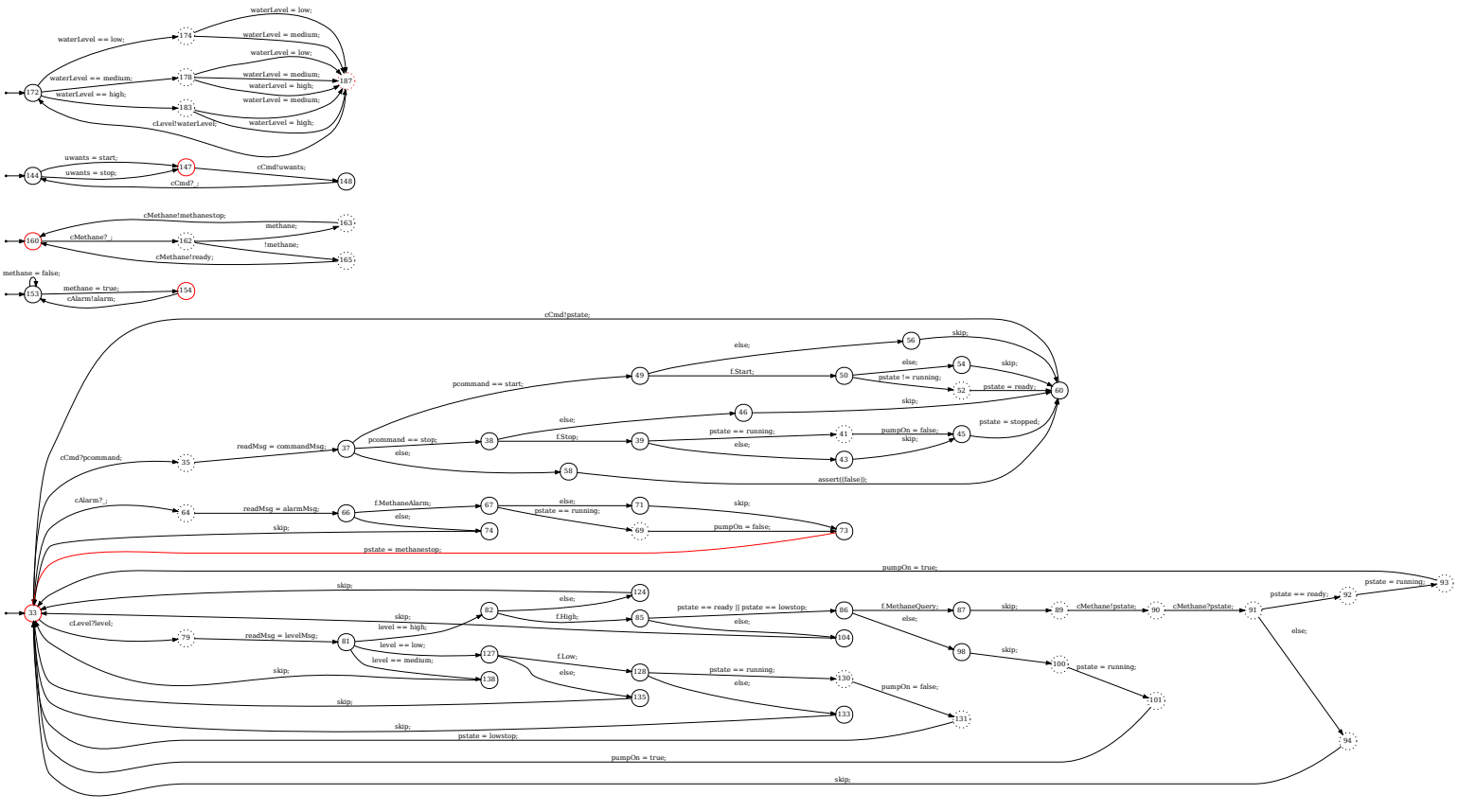
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;


waterLevel = low;
waterLevel == low;
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waterLevel = medium;
waterLevel = low;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
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else;
pumpOn = false;
101
skip;
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skip;
pstate = lowstop;
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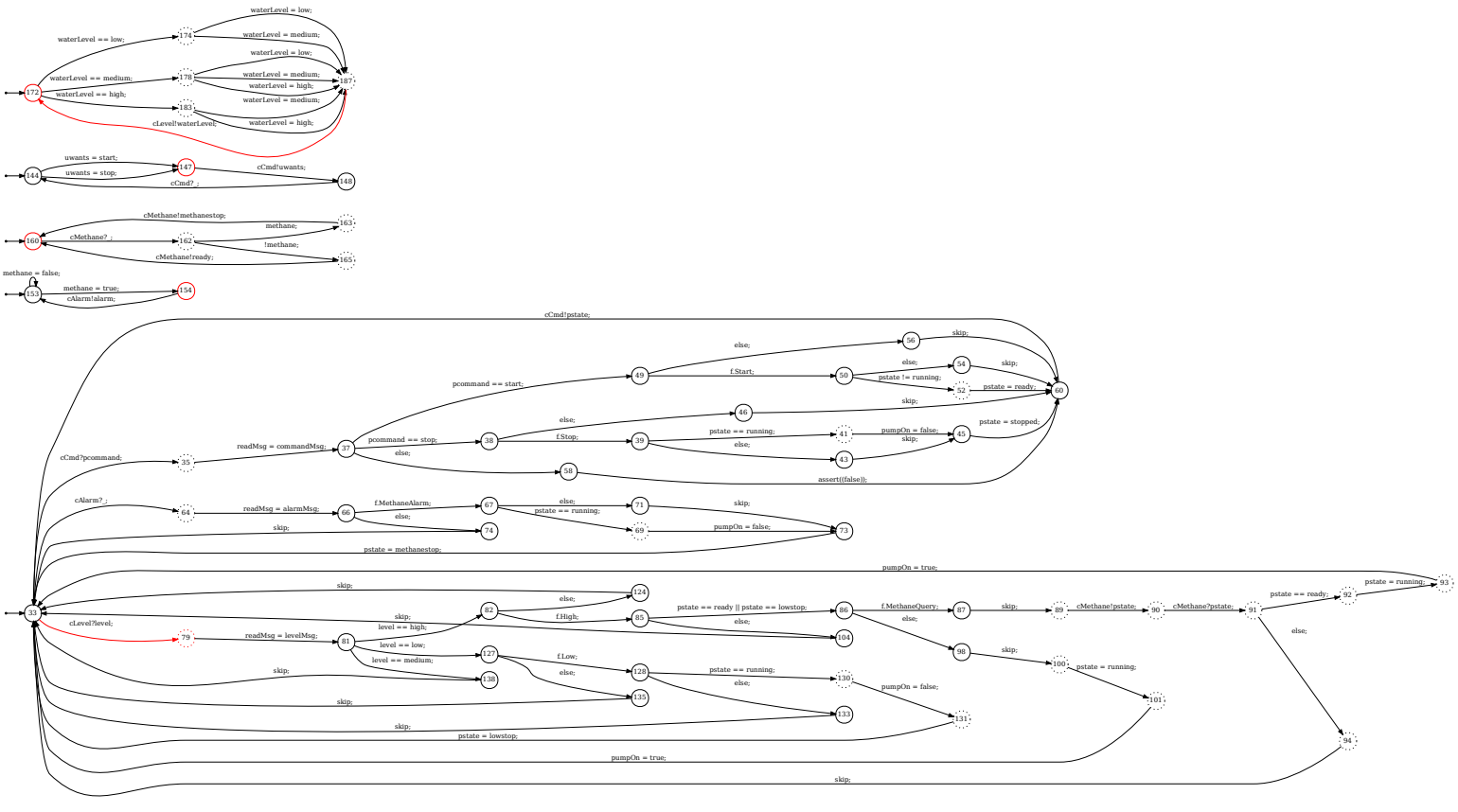
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
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pstate = methanestop;
pumpOn = true;
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cLevel?level;
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skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
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skip;
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pstate = running;
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pstate = running;
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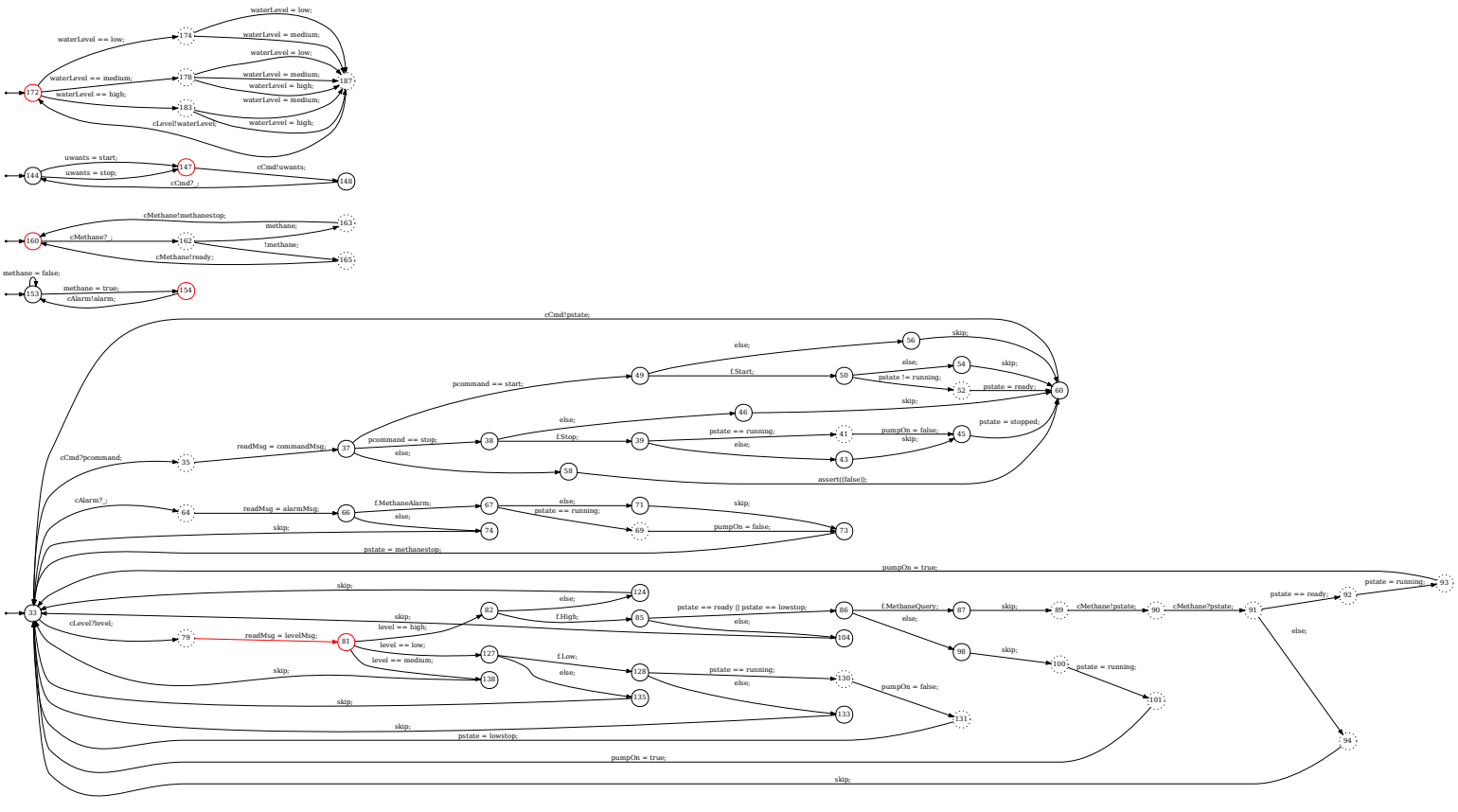
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waterLevel == low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
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160
162
163
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cMethane? ;
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!methane;
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cCmd!pstate;
56
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skip;
49
f.Start;
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pstate != running;
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pstate = ready;
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pcommand == start;
skip;
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else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
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f.MethaneAlarm;
else;
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else;
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pstate == running;
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pumpOn = false;
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pstate = methanestop;
pumpOn = true;
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104
cLevel?level;
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readMsg = levelMsg;
81
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level == high;
level == low;
level == medium;
127
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else;
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138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
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89
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90
cMethane?pstate;
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100
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pstate == ready;
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pstate = running;
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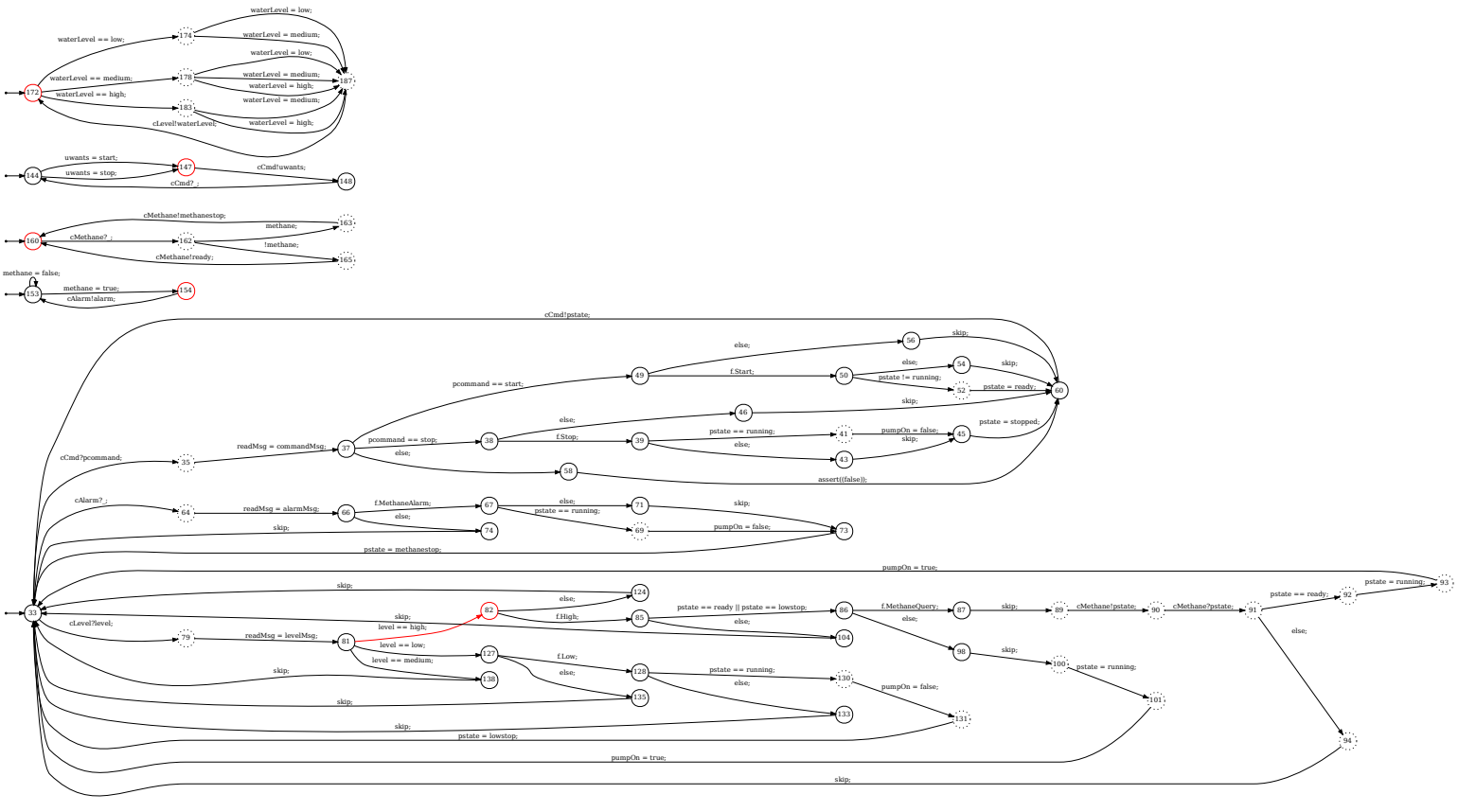
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
f.Stop;
39
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
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135
133
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
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else;
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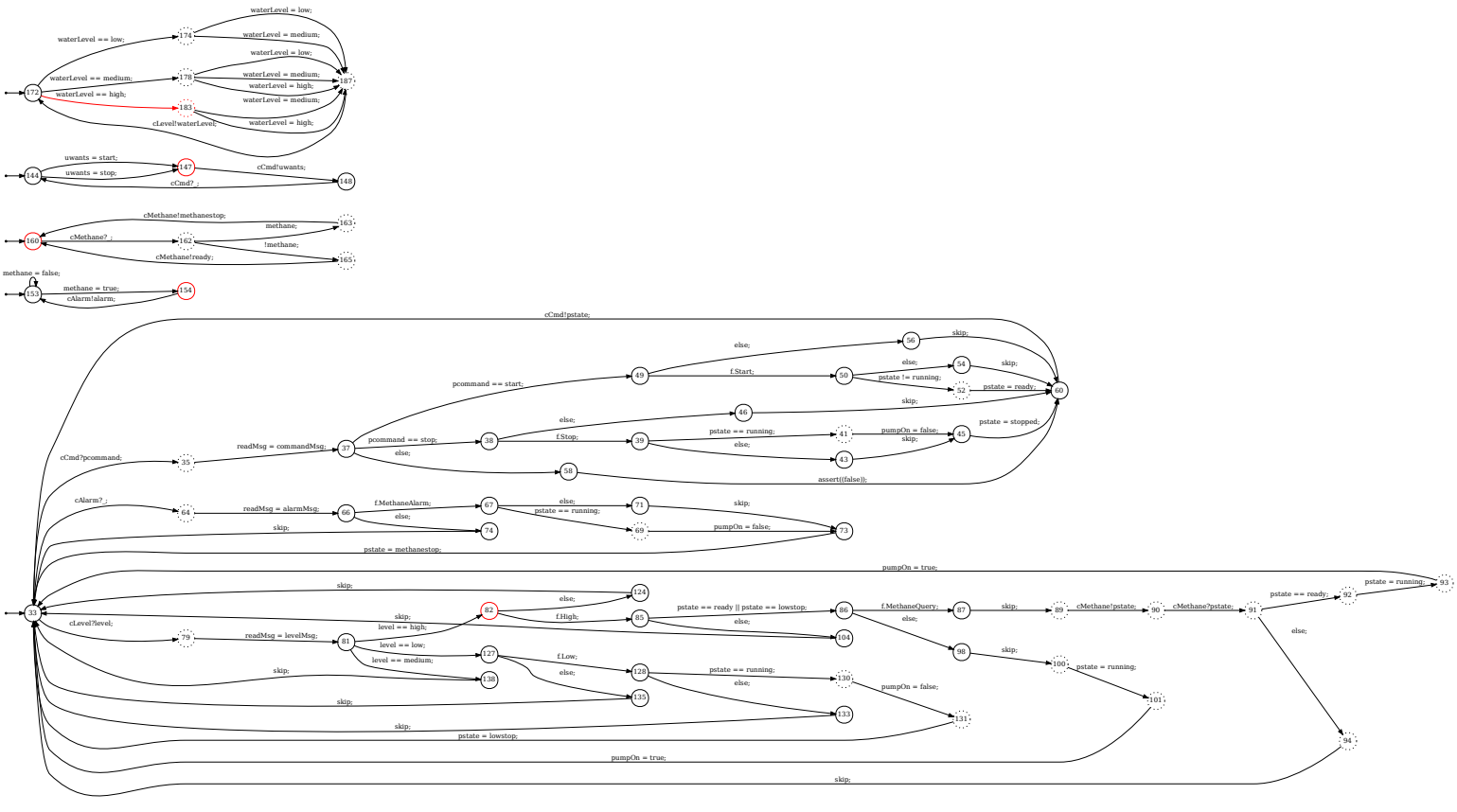
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = medium;
cLevel!waterLevel;
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147
148
uwants = start;
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cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
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154
methane = false;
methane = true;
cAlarm!alarm;
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131
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135
138
cCmd!pstate;
else;
skip;
else;
skip;
pcommand == start;
f.Start;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
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skip;
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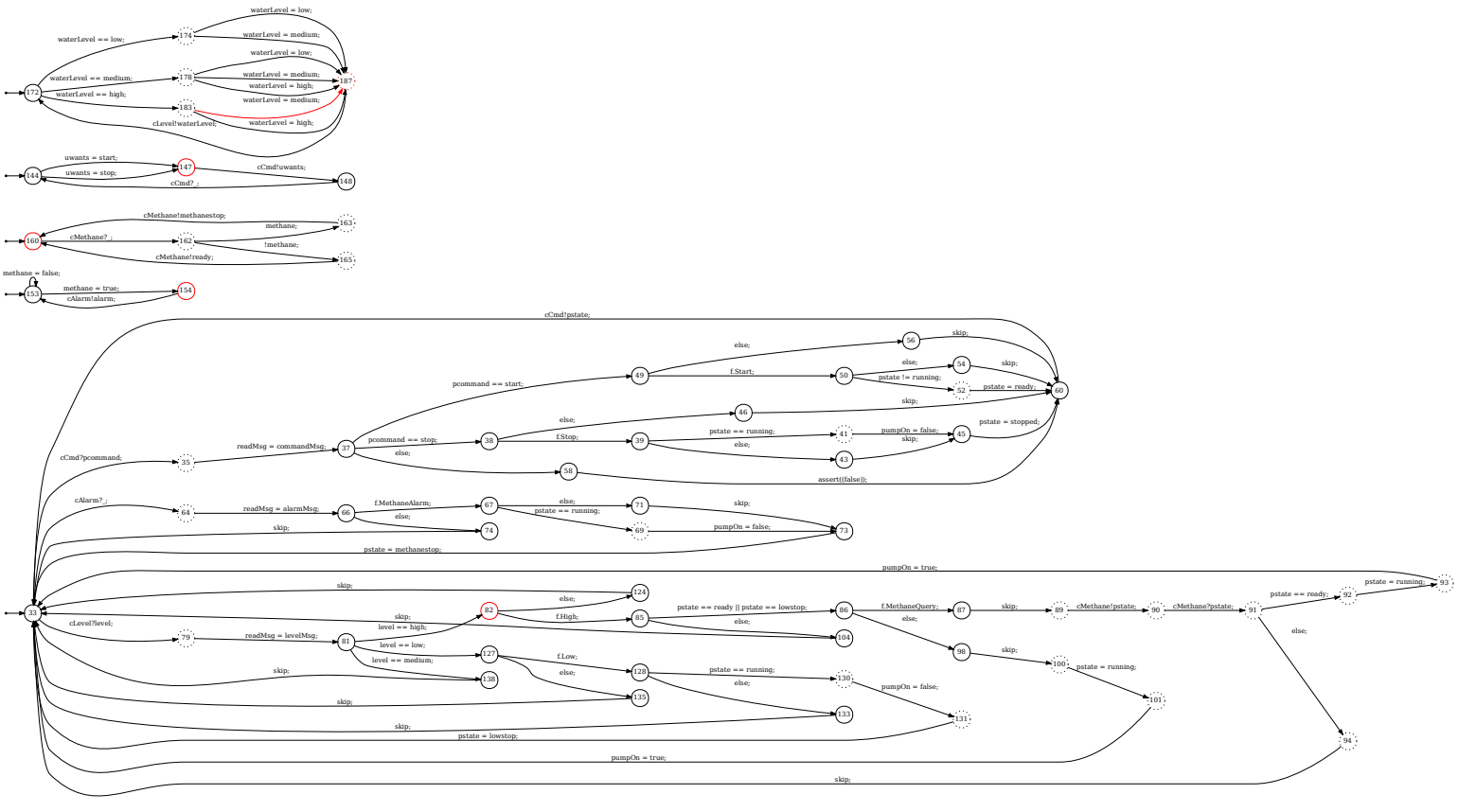
skip;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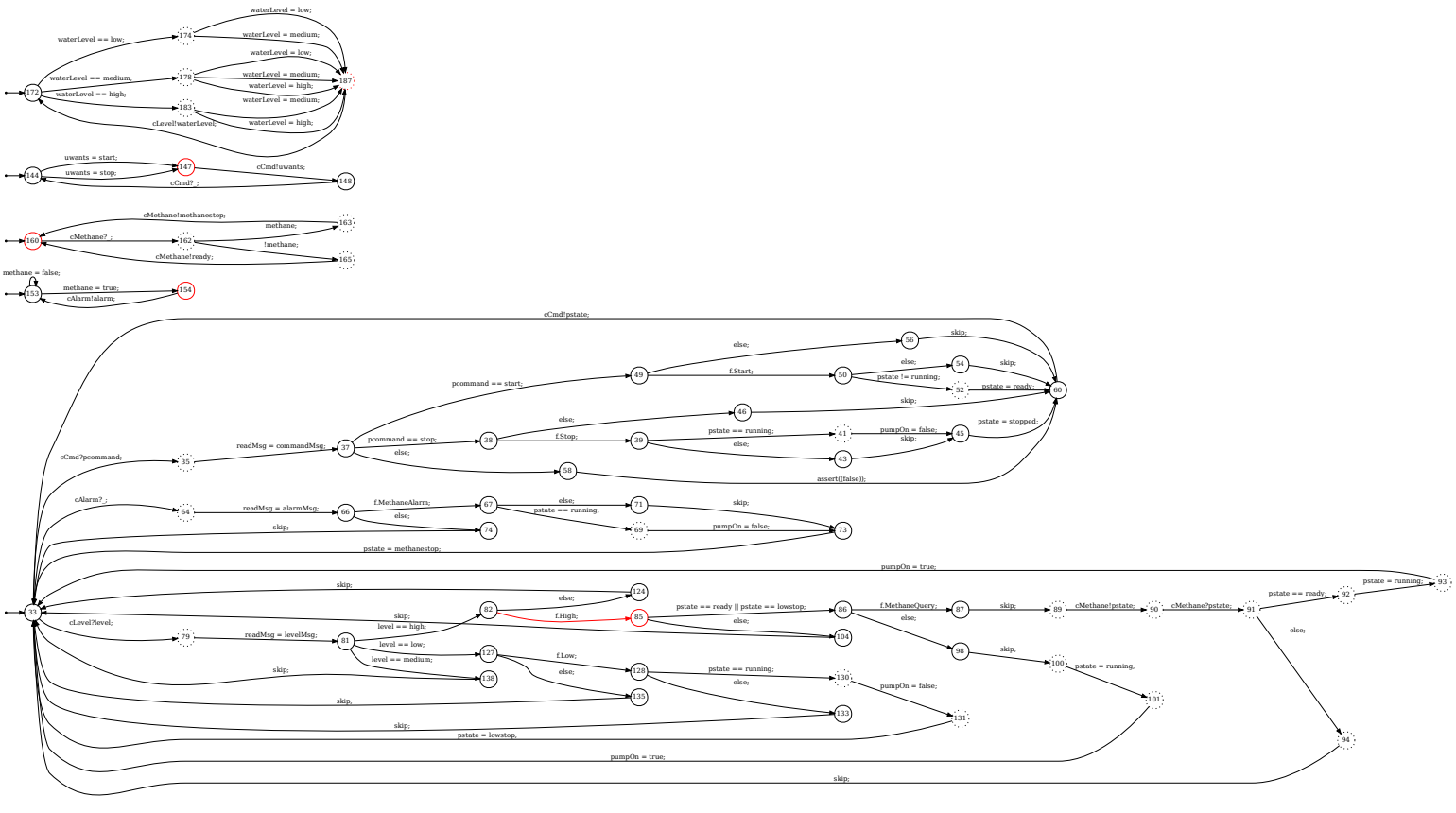
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f.Stop;
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pstate = stopped;
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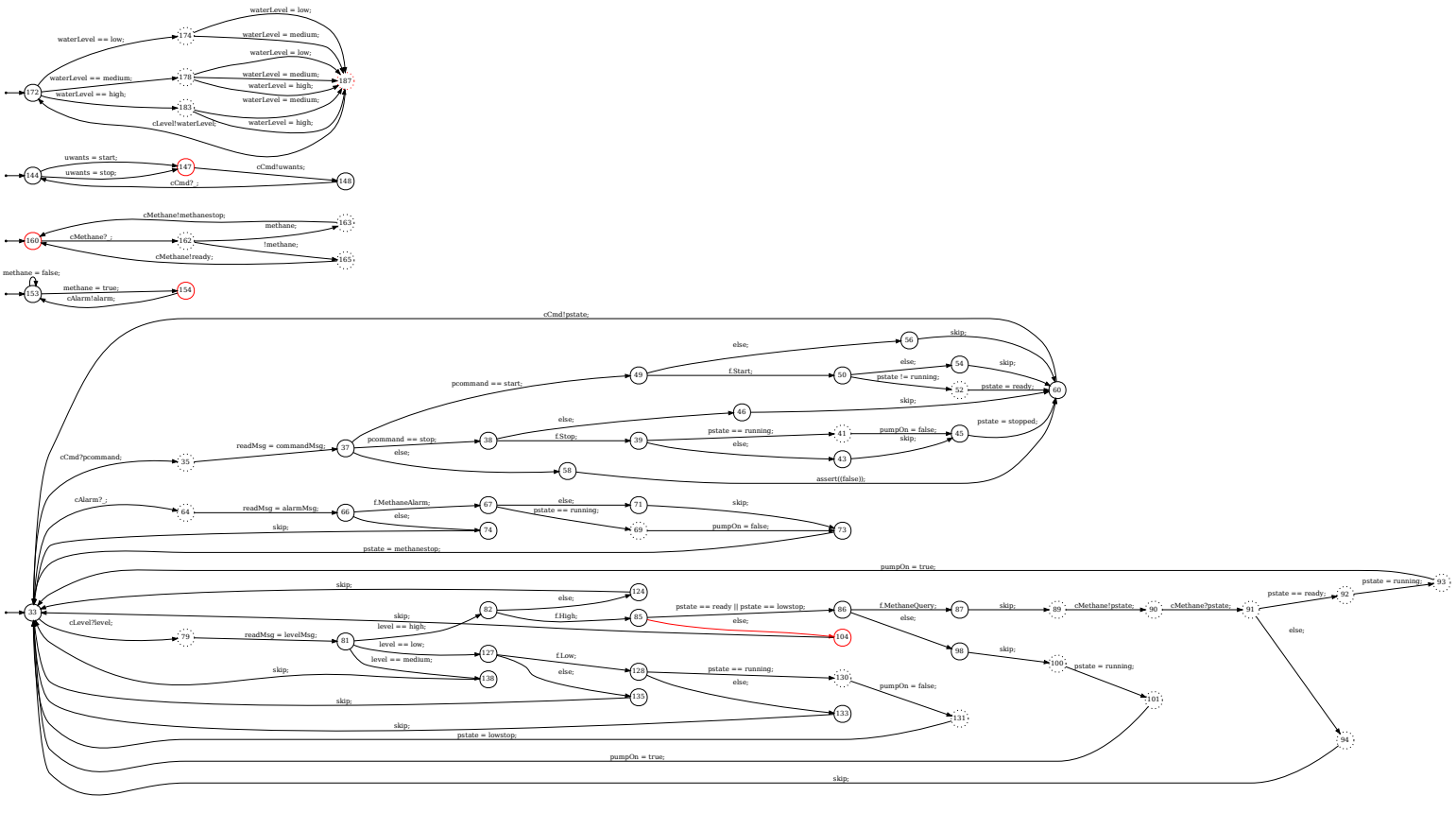
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154
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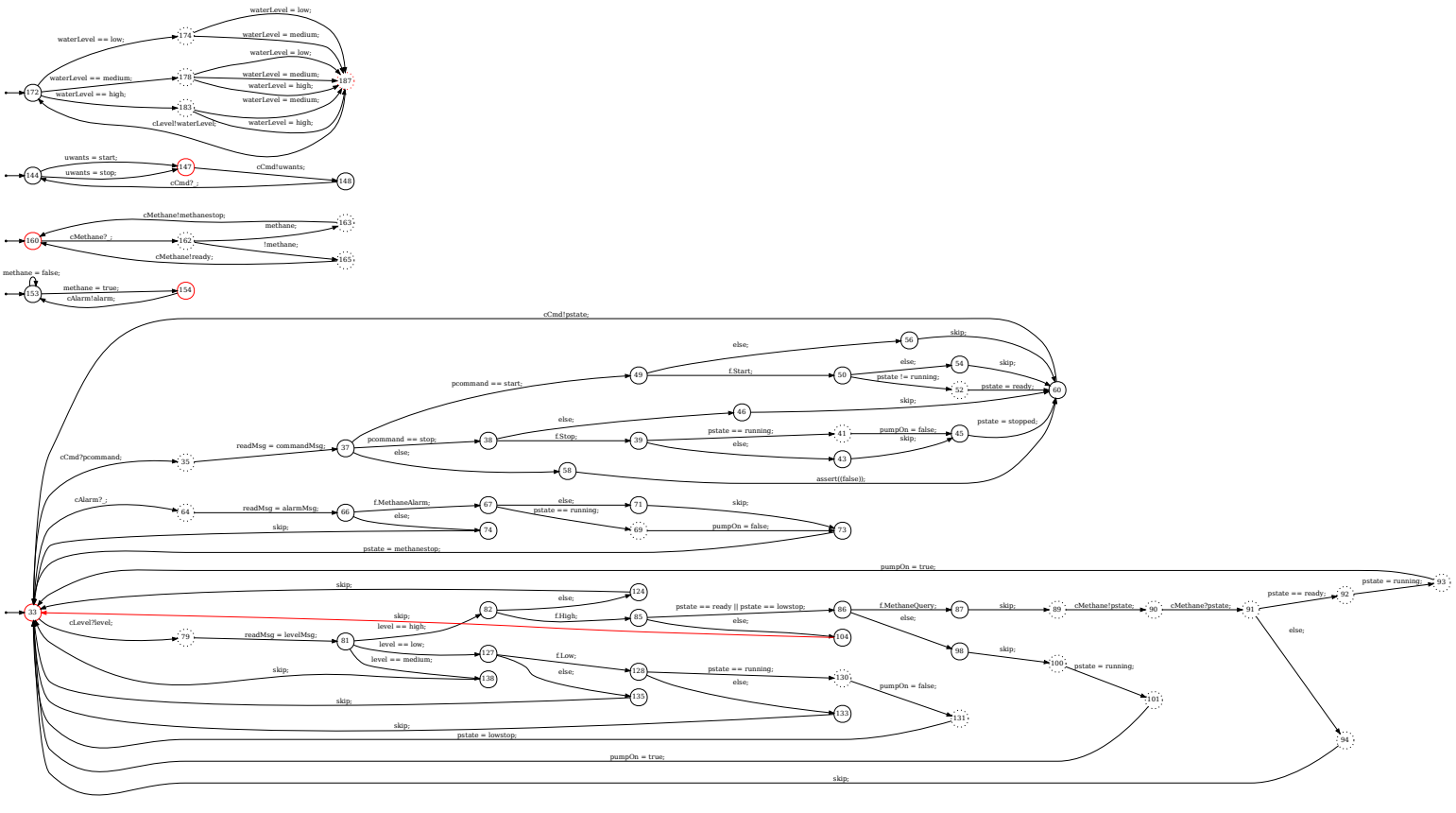
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cLevel?level;
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level == low;
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pumpOn = false;
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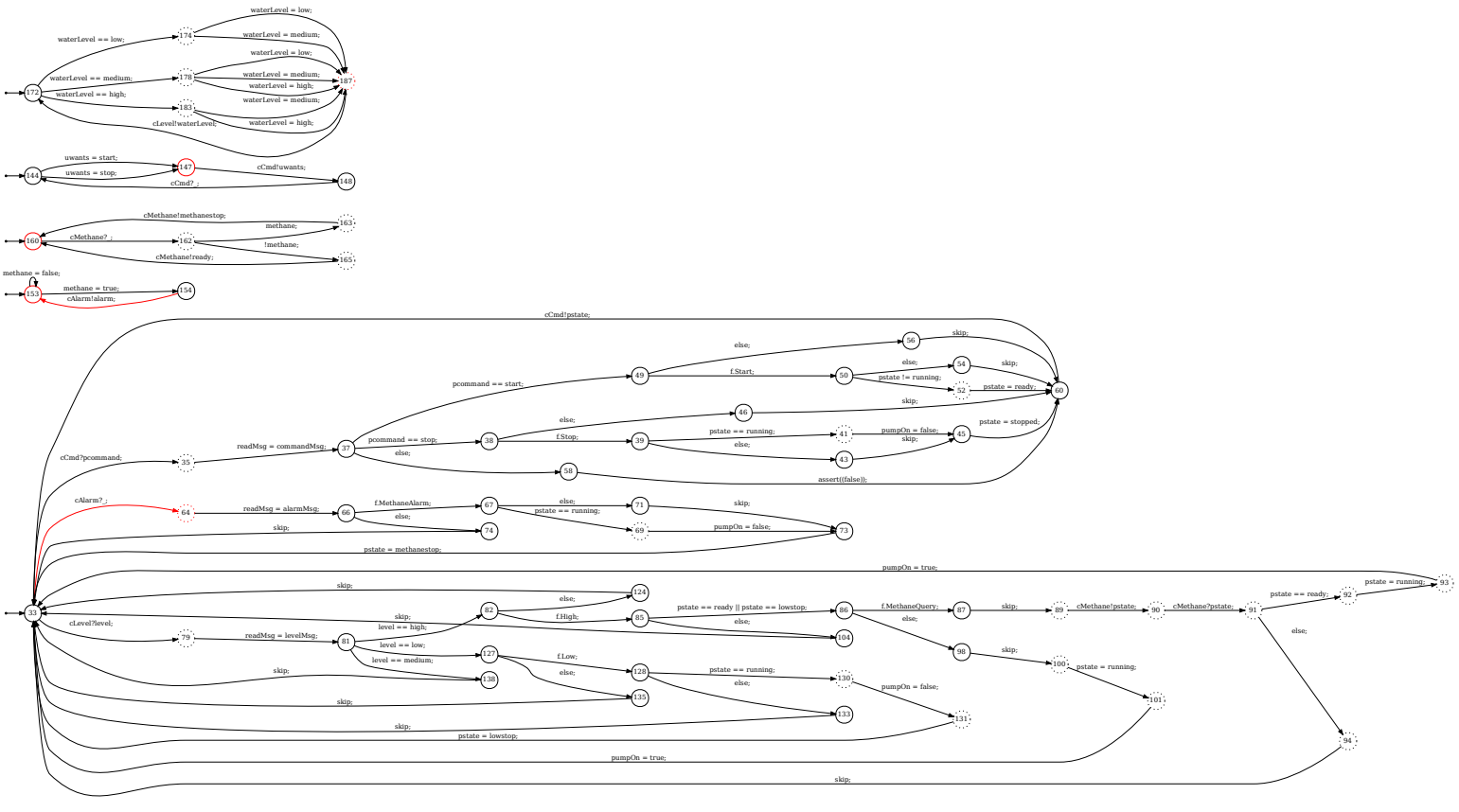
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waterLevel = low;
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f.Stop;
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assert((false));
cAlarm? ;
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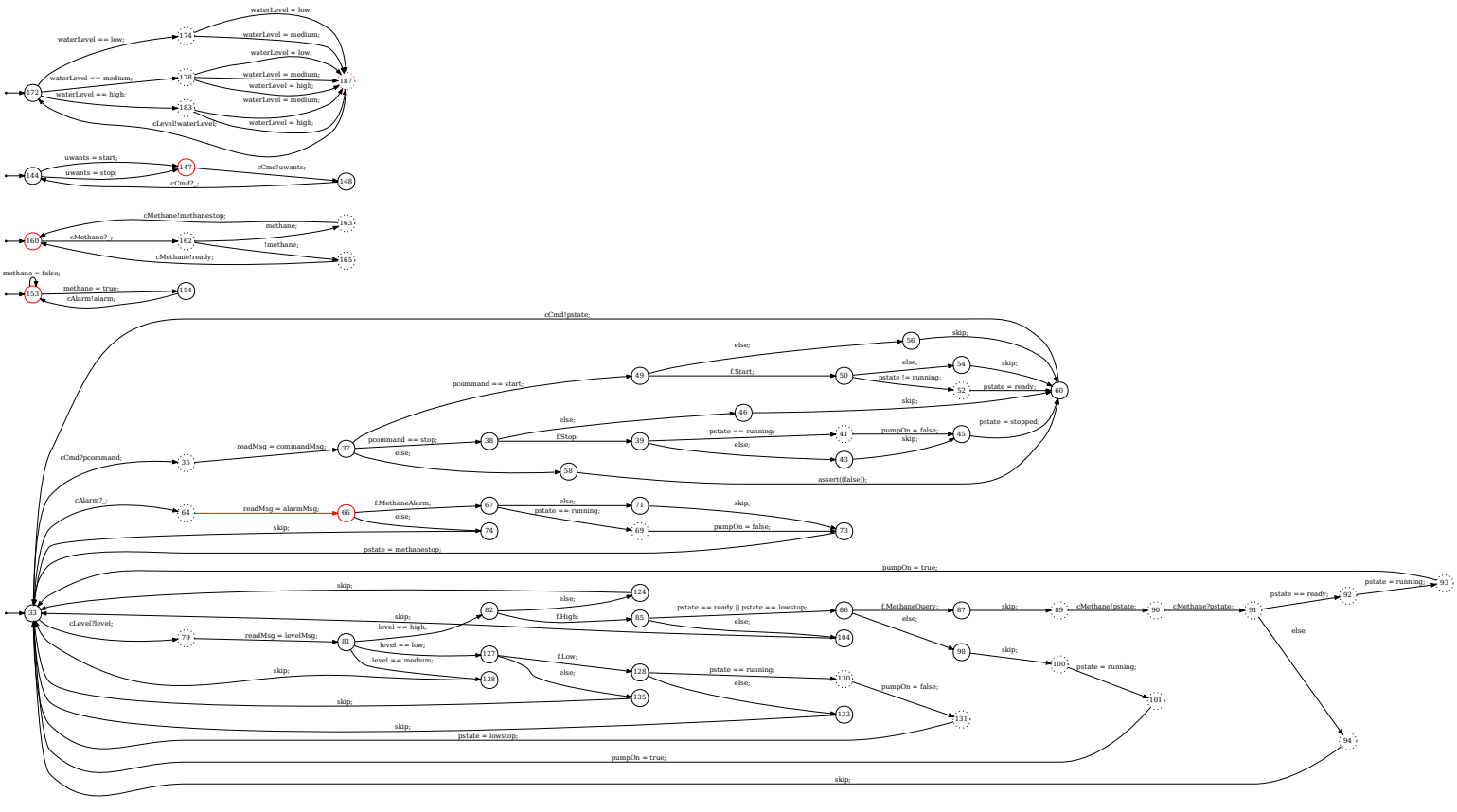
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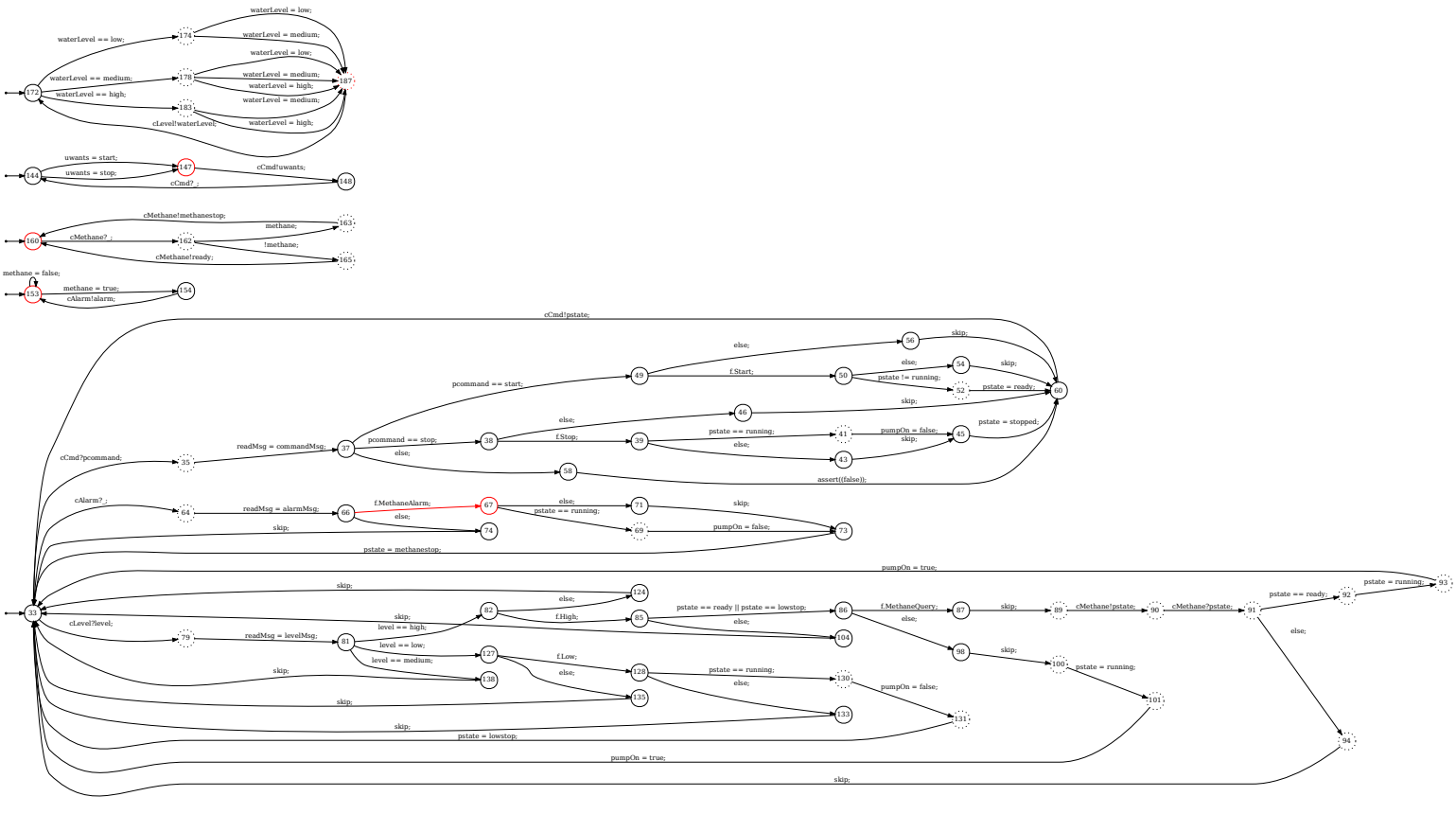
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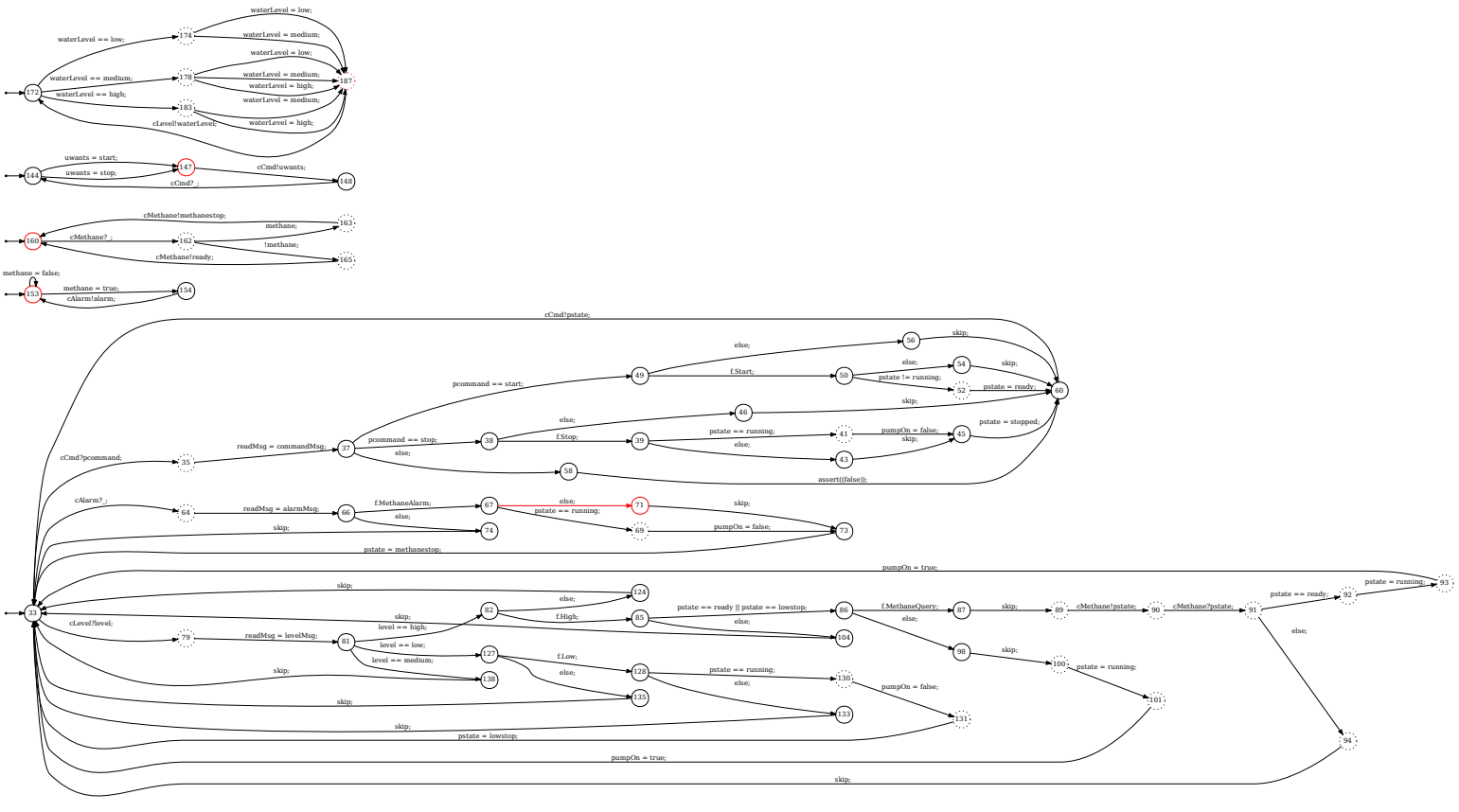
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else;
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skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
131
133
pumpOn = false;
pumpOn = true;
skip;
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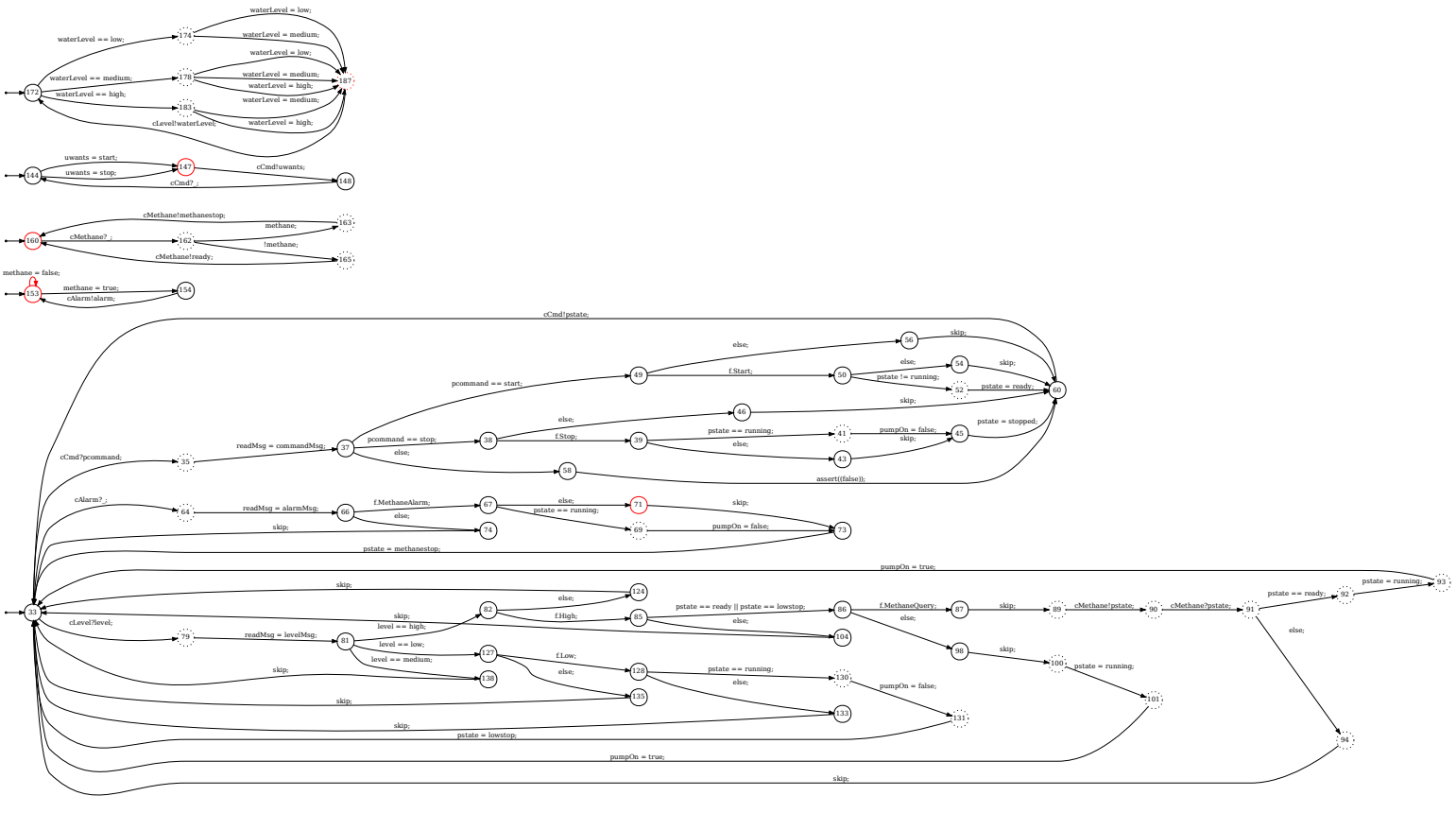
skip;
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
94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waterLevel == low;
waterLevel = low;
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waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
f.High;
else;
85
else;
104
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
98
skip;
100
pstate = running;
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skip;
138
skip;
135
133
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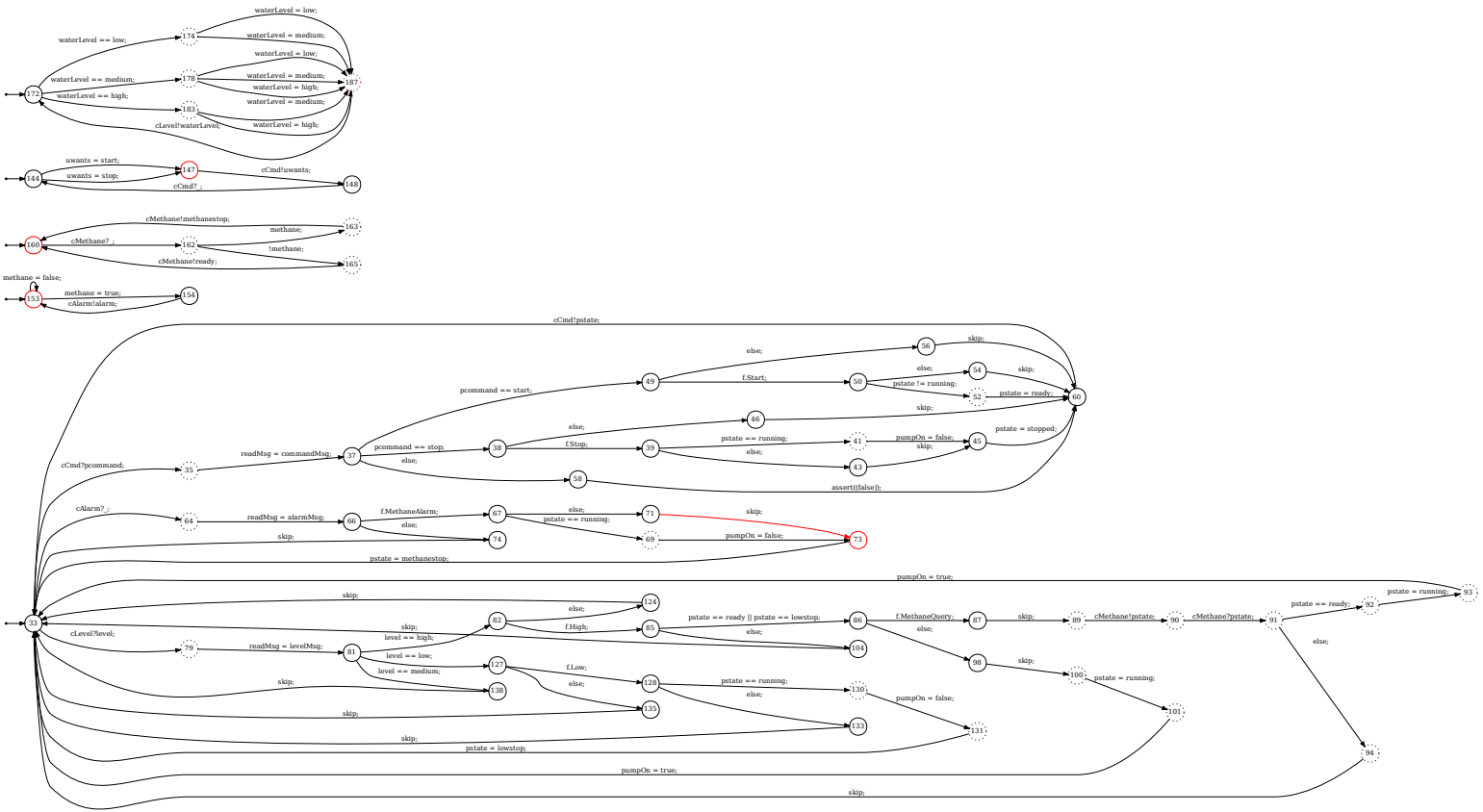
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
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58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
else;
skip;
pcommand == stop;
else;
f.Stop;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
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131
133
135
138
skip;
else;
f.High;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.Low;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
else;
pstate = running;
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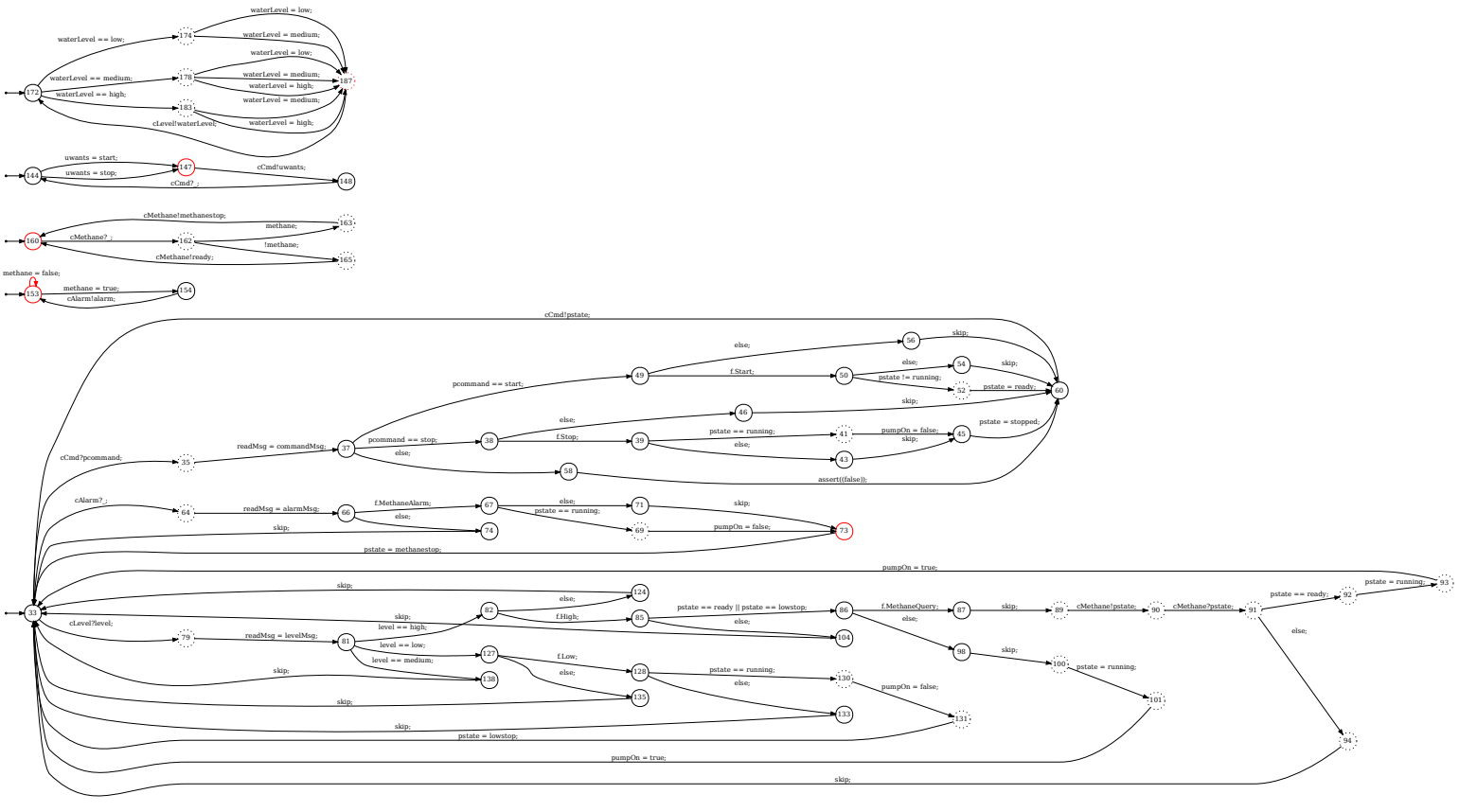
skip;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waterLevel = low;
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waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
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pcommand == start;
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f.Stop;
39
pstate == running;
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pumpOn = false;
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pstate = stopped;
pcommand == stop;
else;
else;
skip;
43
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else;
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assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
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64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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67
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71
skip;
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pumpOn = true;
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124
else;
33
82
pstate == ready || pstate == lowstop;
86
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cLevel?level;
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readMsg = levelMsg;
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skip;
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level == low;
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127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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skip;
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skip;
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skip;
pstate = lowstop;
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pumpOn = true;
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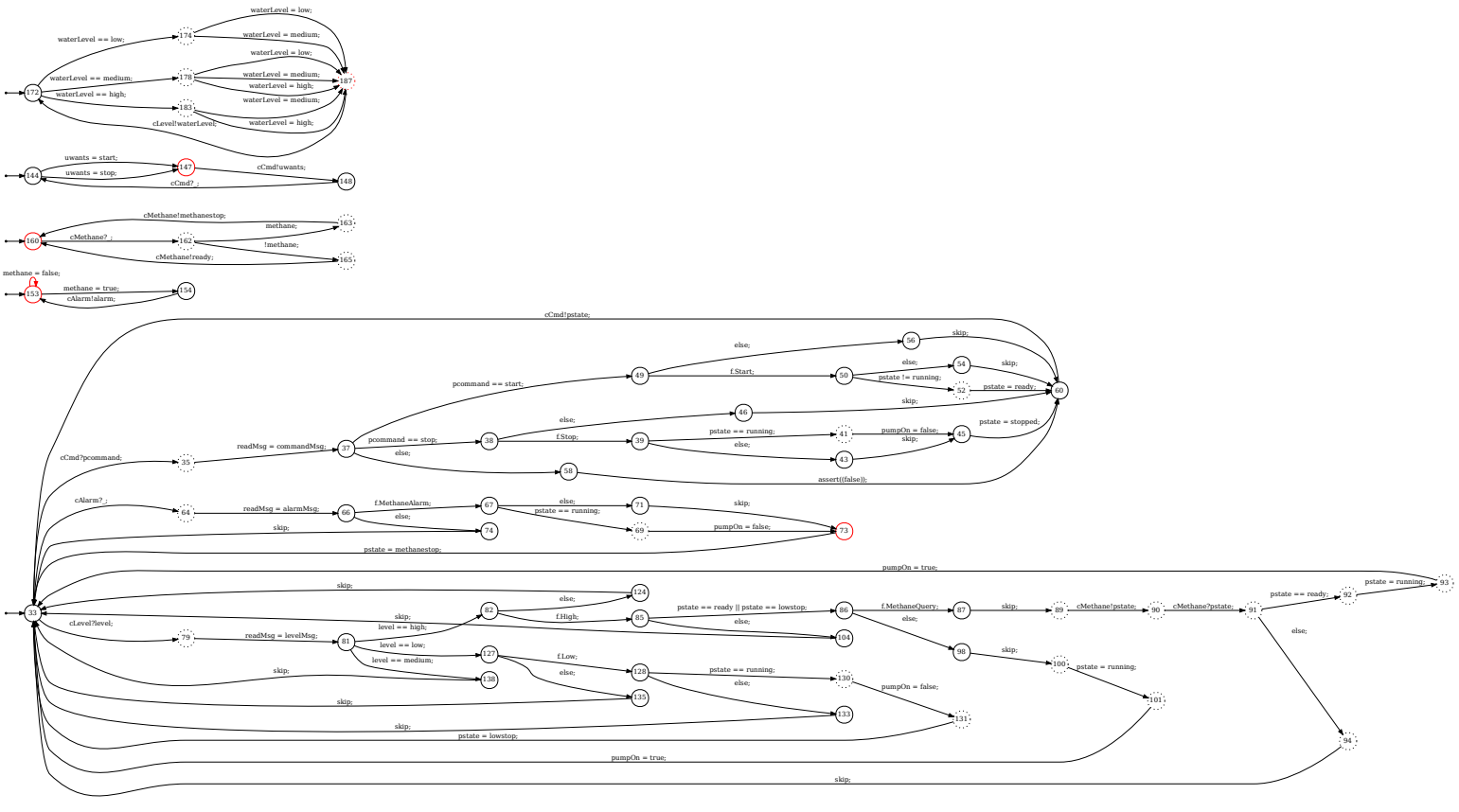
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waterLevel == low;
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waterLevel = medium;
waterLevel == medium;
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waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
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160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
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f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
pcommand == stop;
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assert((false));
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readMsg = alarmMsg;
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pumpOn = false;
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else;
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pstate = lowstop;
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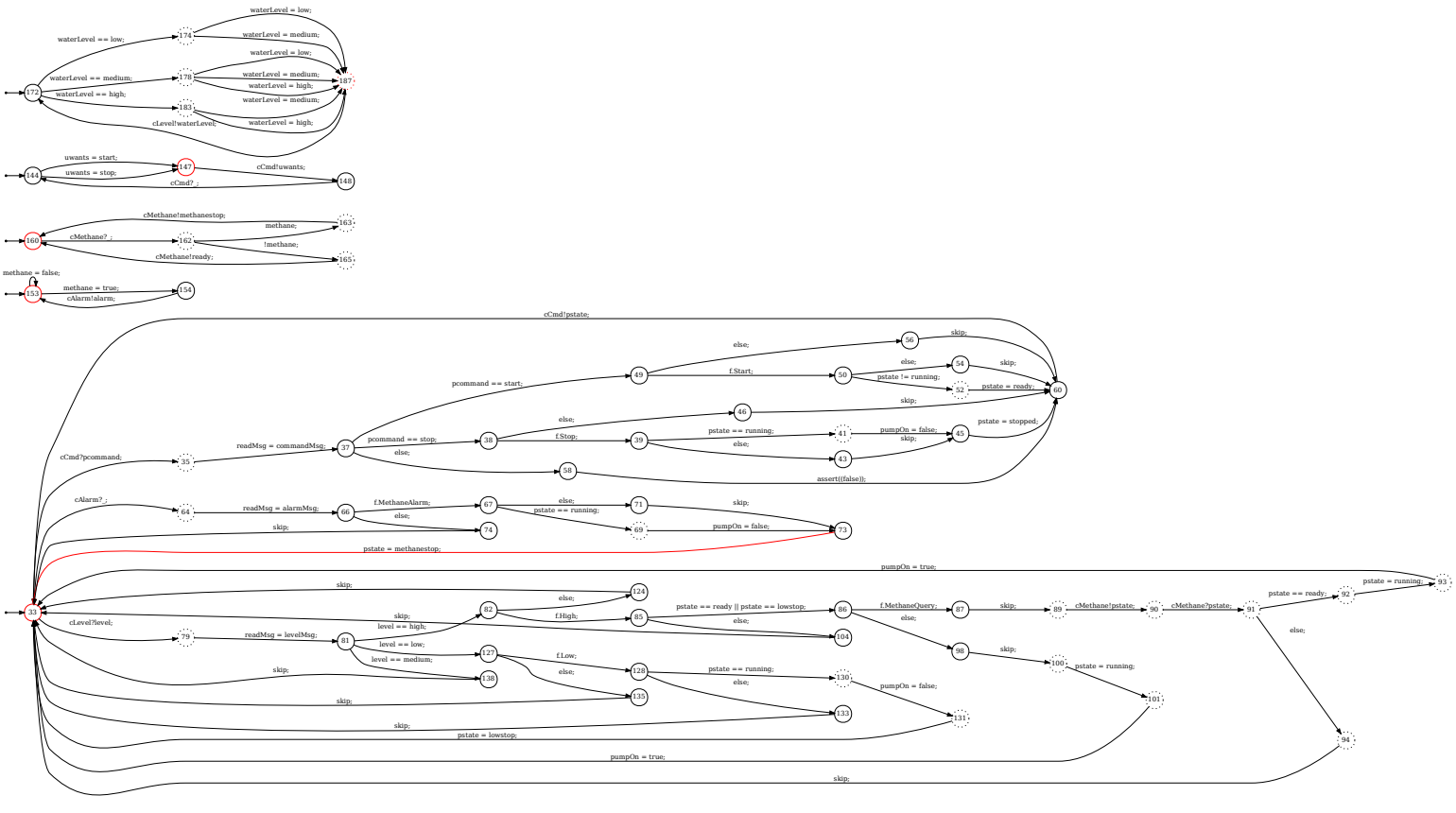
skip;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waterLevel == medium;
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waterLevel = medium;
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waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
162
cMethane!methanestop;
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
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pcommand == start;
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f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
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skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
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pstate = running;
93
else;
else;
f.High;
85
else;
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cLevel?level;
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readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
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pstate == running;
else;
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pumpOn = false;
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131
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skip;
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skip;
pstate = lowstop;
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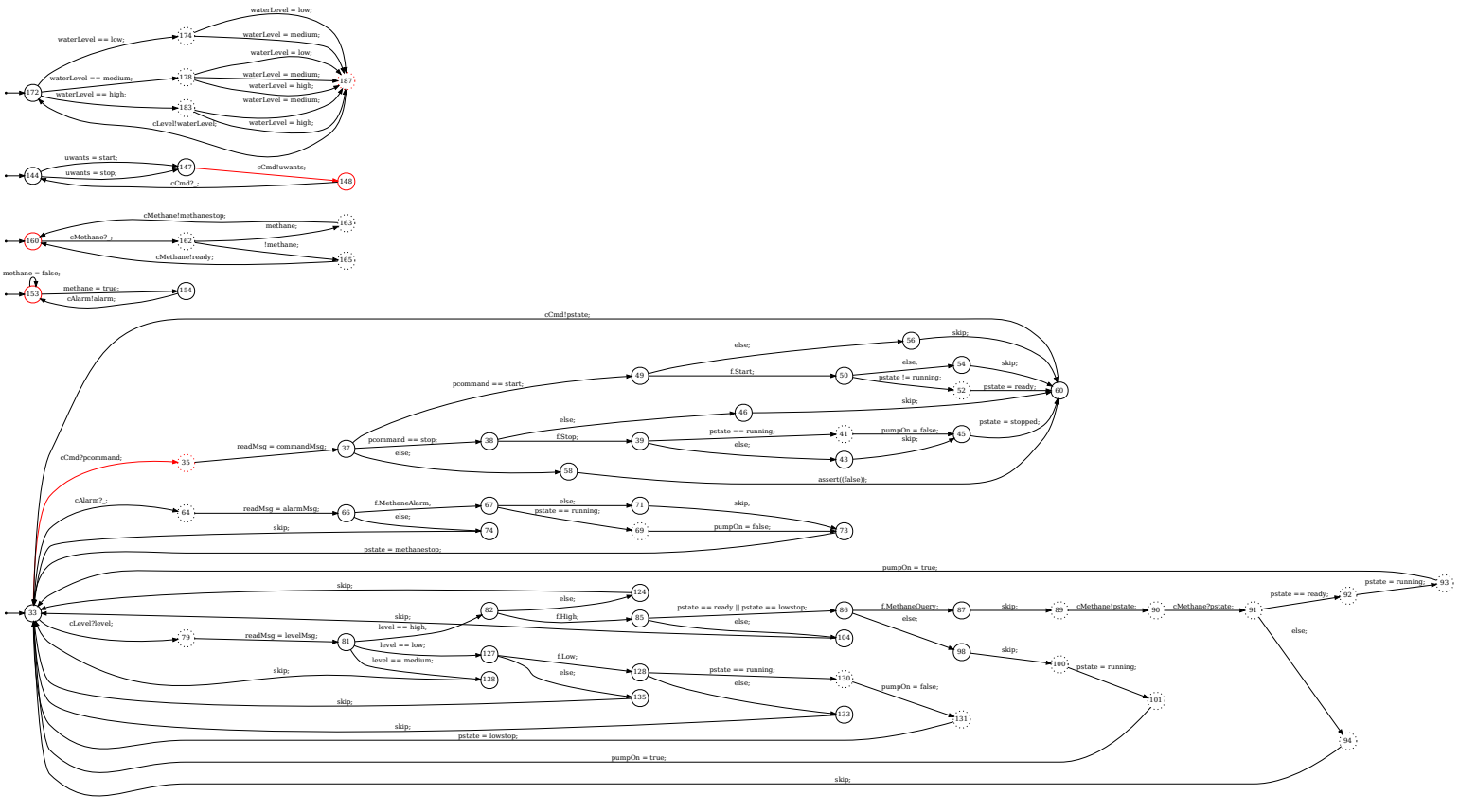
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waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
cCmd?pcommand;
37
readMsg = commandMsg;
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41
43
45
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60
pcommand == start;
else;
f.Start;
skip;
else;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
else;
pstate = stopped;
else;
assert((false));
64
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
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skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
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cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
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else;
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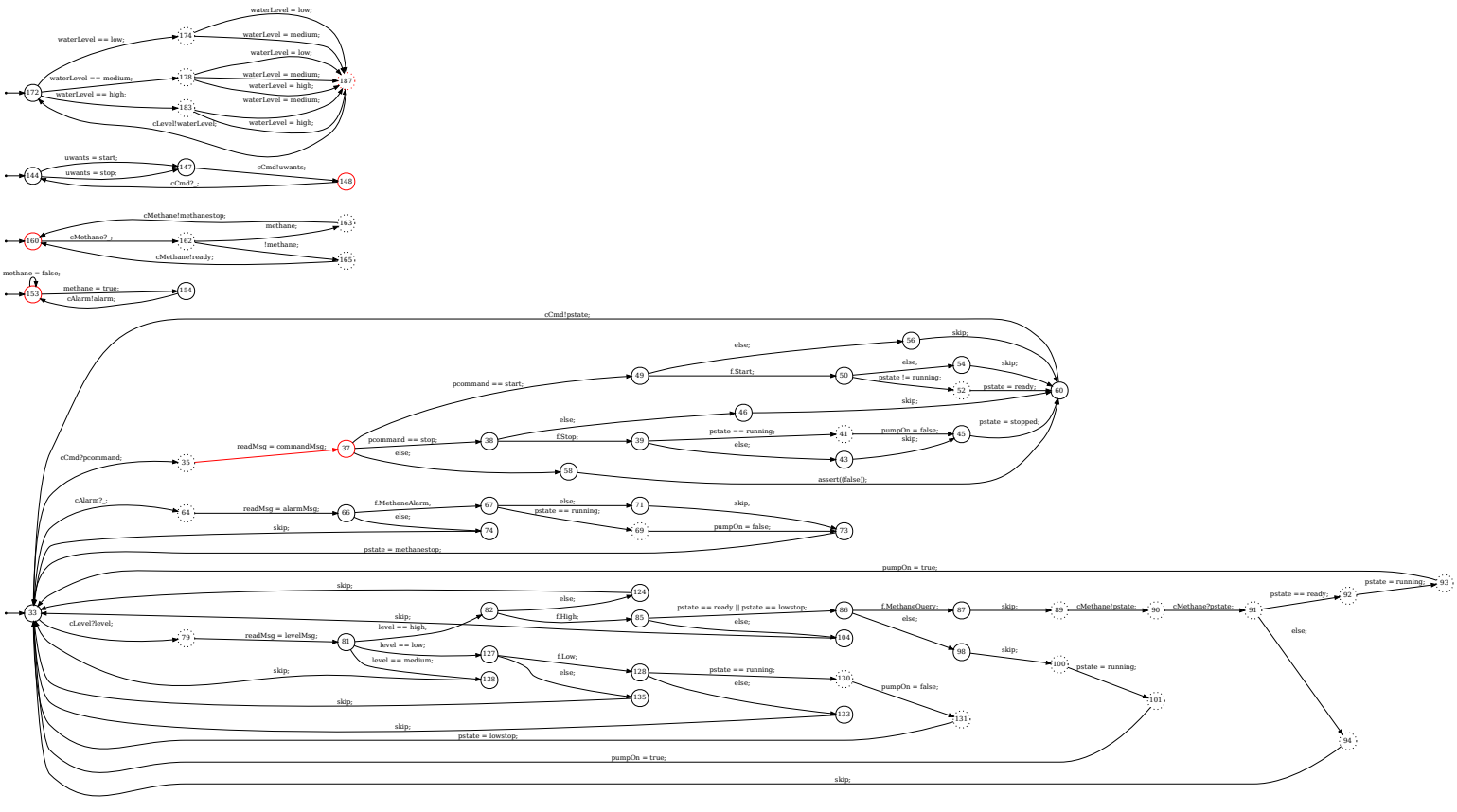
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel = medium;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
else;
38
39
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
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skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
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cLevel?level;
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readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
138
135
133
131
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
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else;
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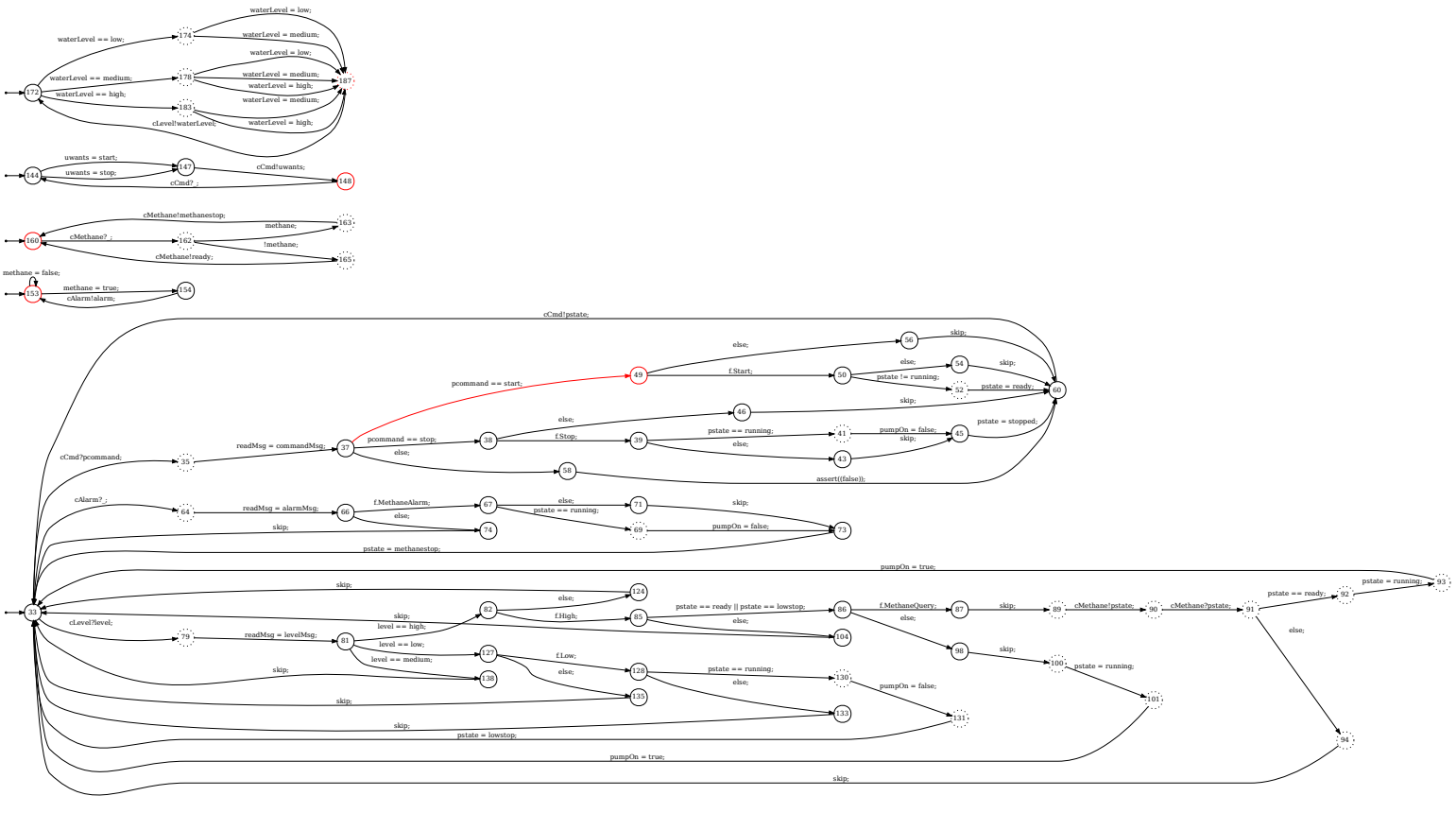
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
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154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
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43
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52
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56
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60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
pstate = stopped;
f.Start;
pstate != running;
pstate = ready;
assert((false));
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
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cMethane?pstate;
pstate = ready;
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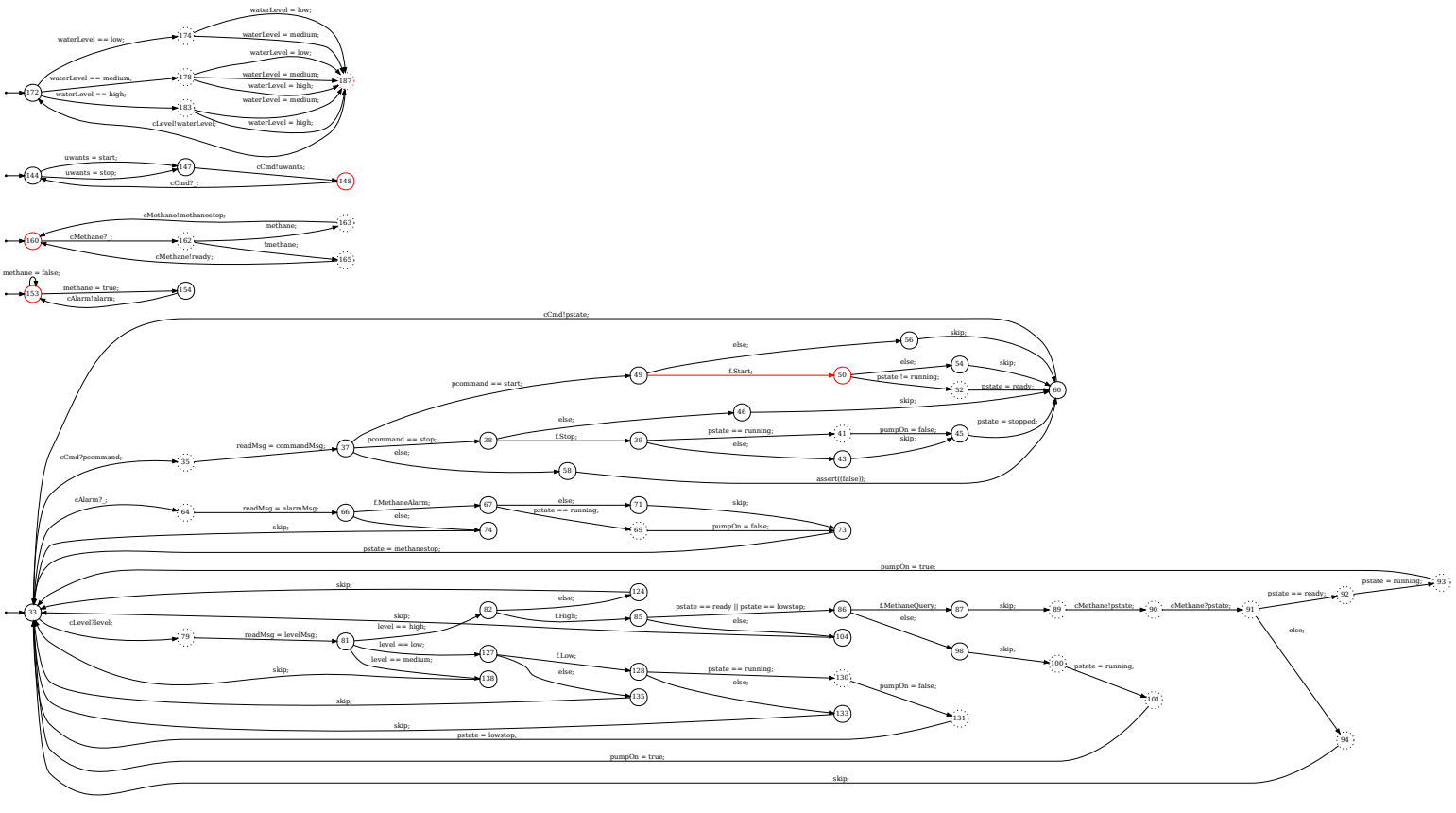
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waterLevel == high;
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waterLevel = medium;
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187
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uwants = start;
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cCmd!uwants;
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148
160
cMethane? ;
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cMethane!methanestop;
methane;
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163
cMethane!ready;
165
methane = false;
153
methane = true;
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cCmd!pstate;
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skip;
else;
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skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
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else;
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cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
else;
cAlarm? ;
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readMsg = alarmMsg;
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f.MethaneAlarm;
else;
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73
skip;
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pumpOn = true;
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skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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pumpOn = true;
skip;
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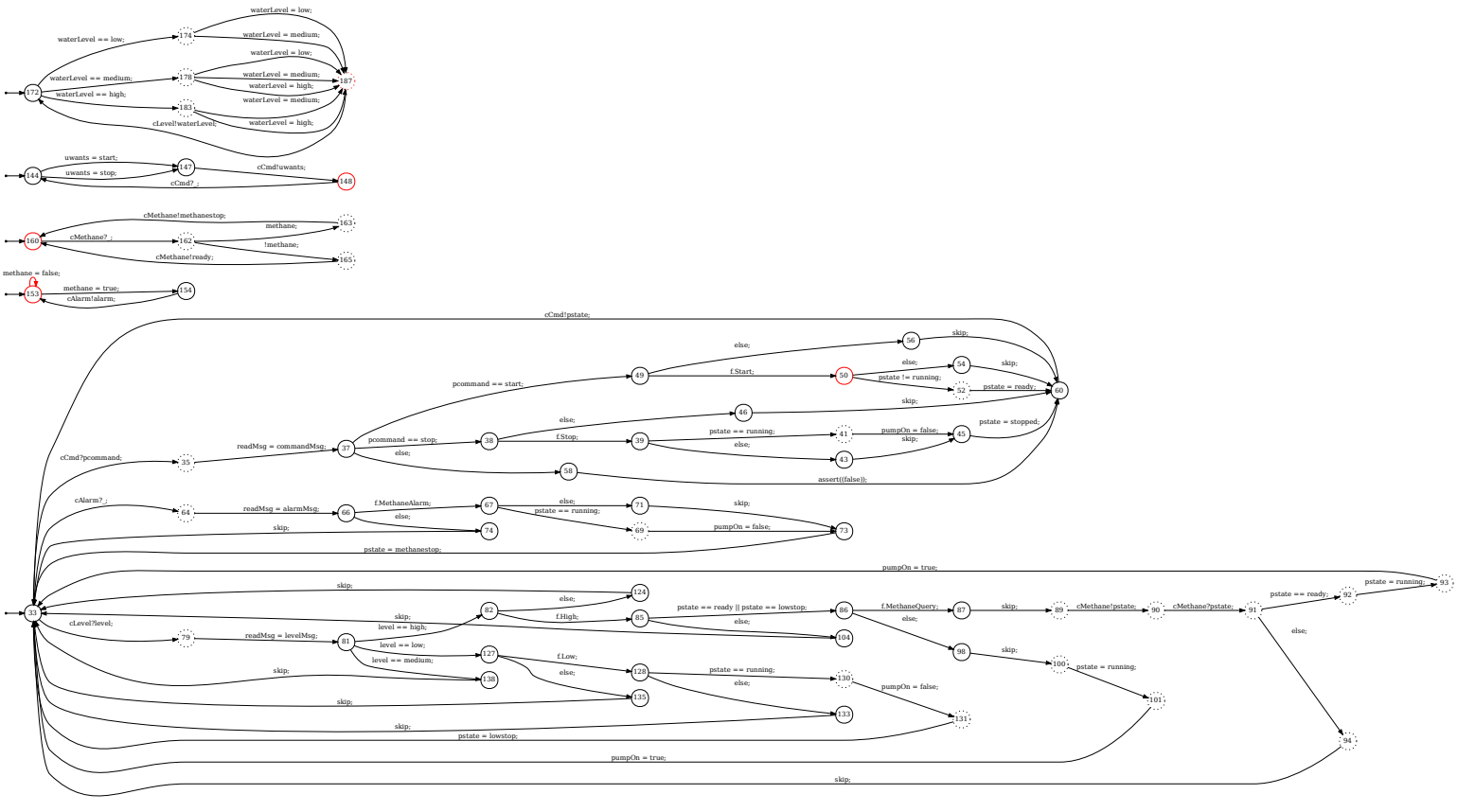
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waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
39
f.Stop;
38
pcommand == stop;
37
else;
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assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
66
f.MethaneAlarm;
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67
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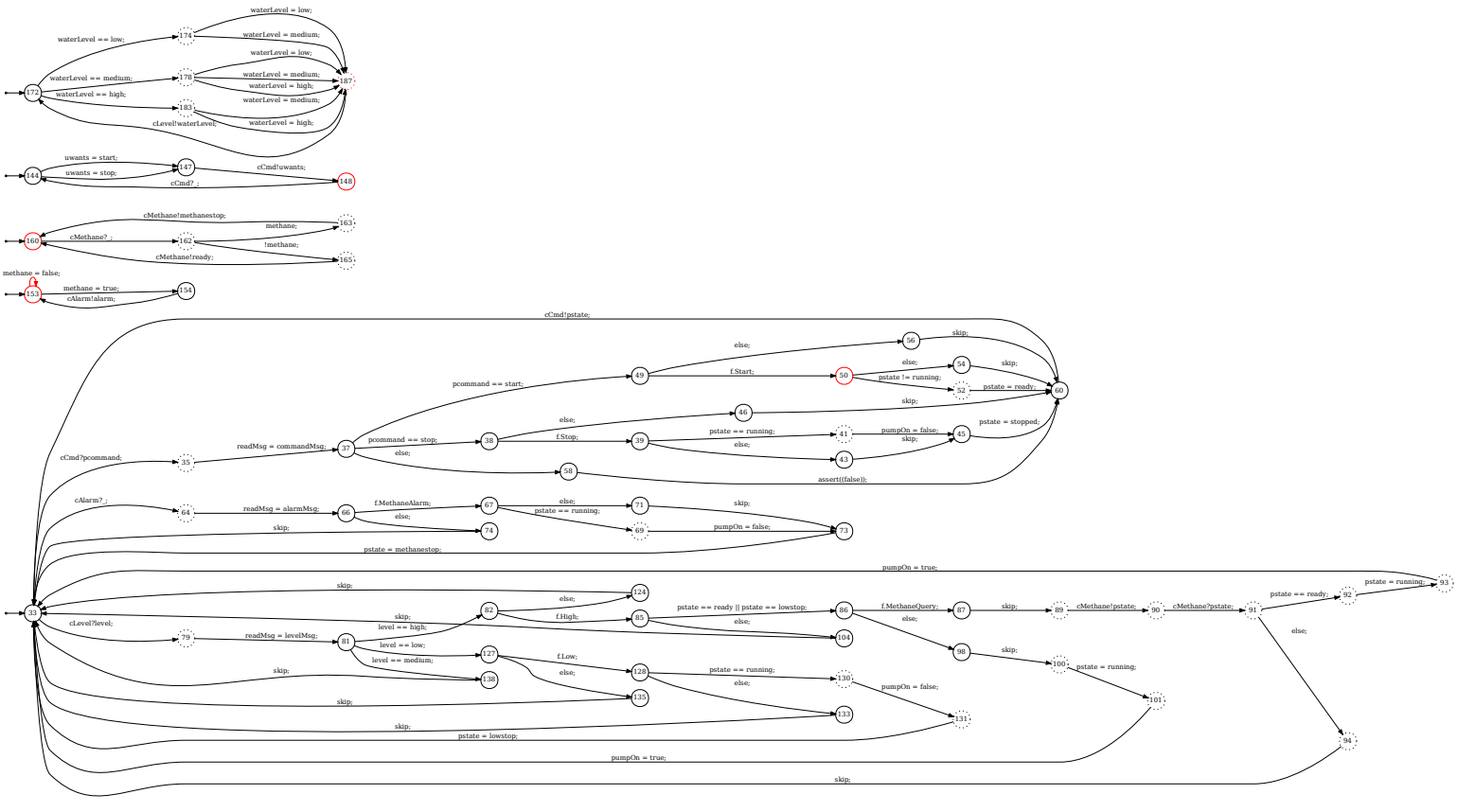
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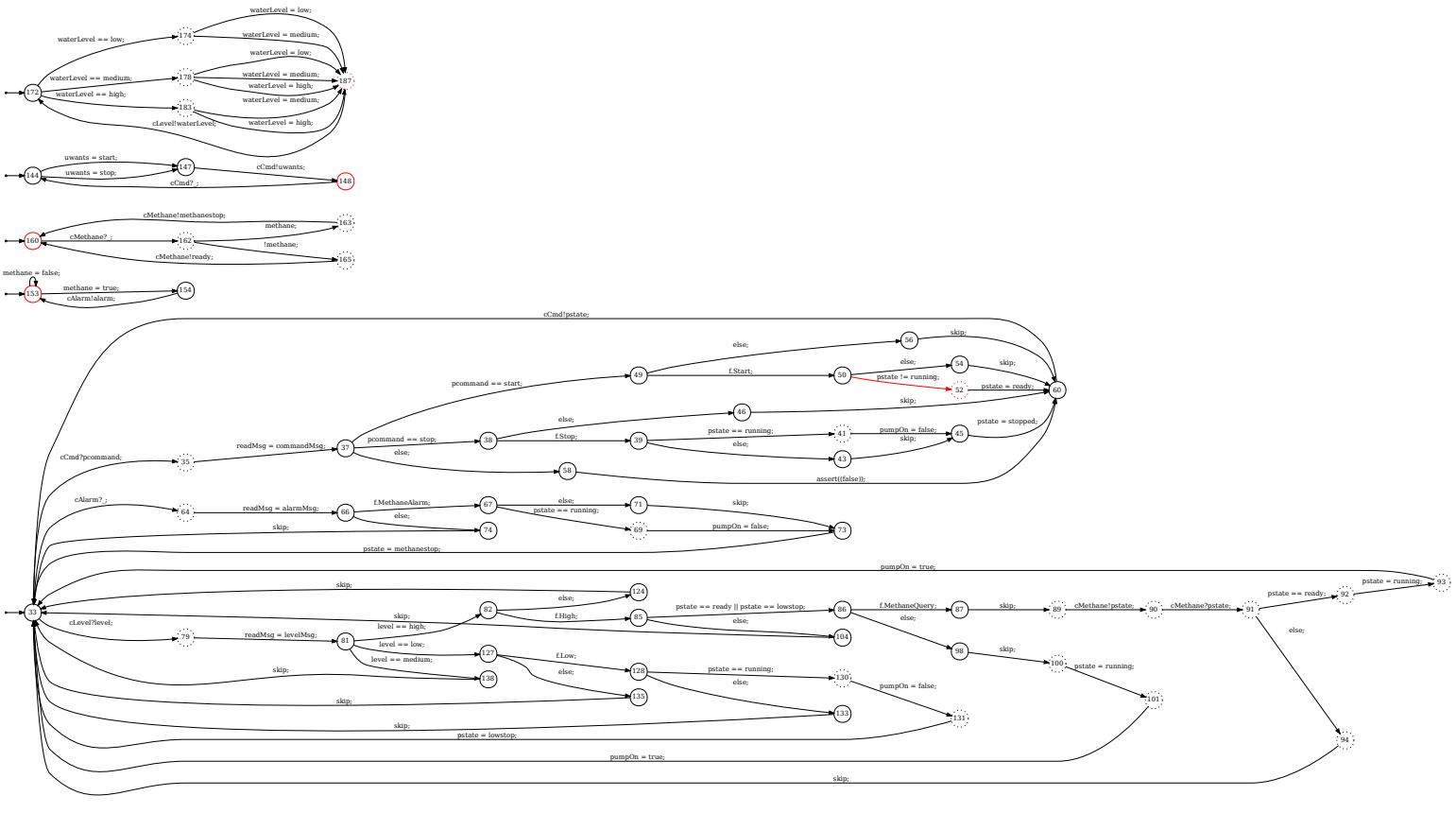
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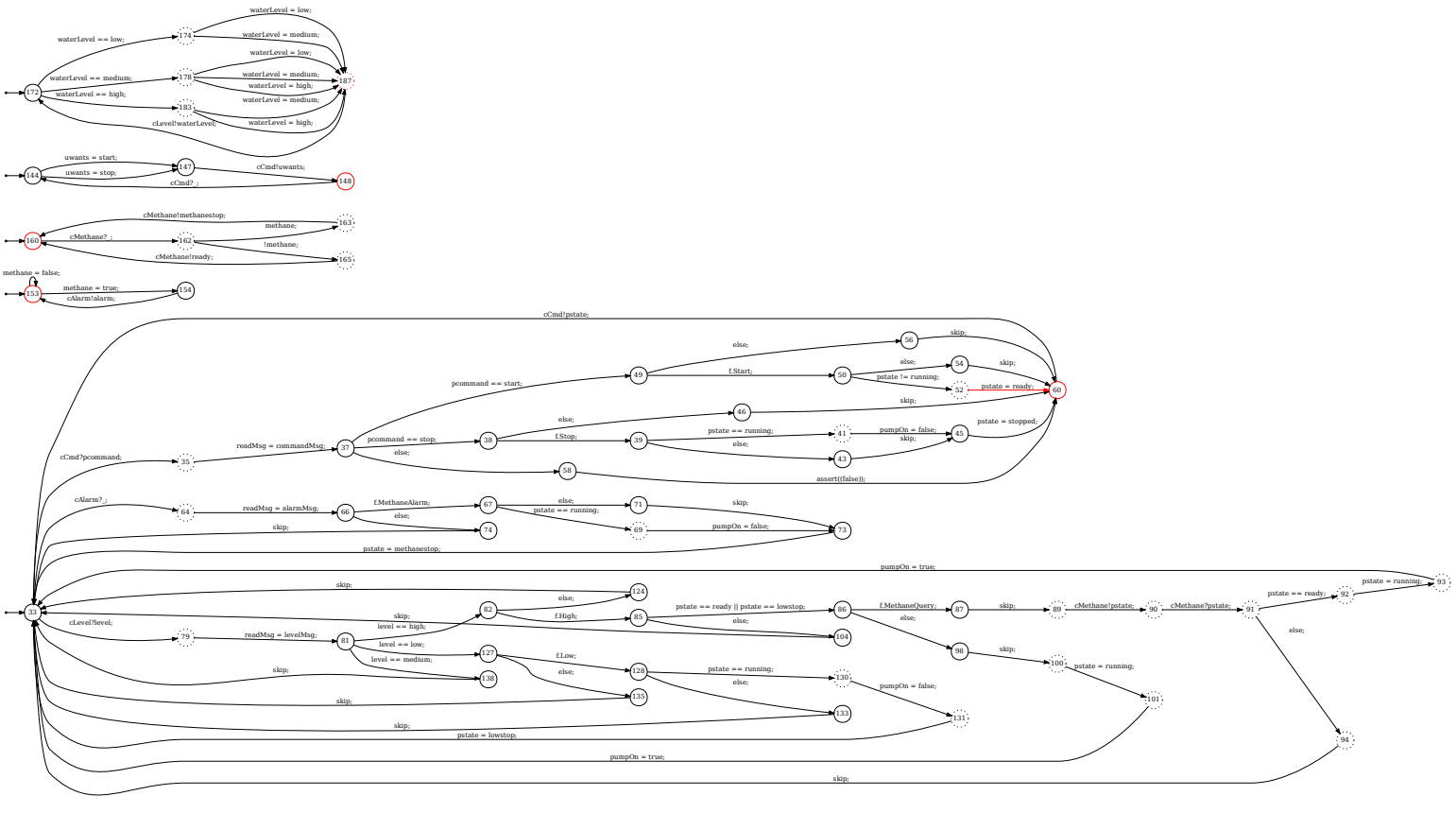
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cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
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cAlarm? ;
readMsg = alarmMsg;
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else;
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skip;
pstate = methanestop;
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cLevel?level;
readMsg = levelMsg;
skip;
level == high;
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f.High;
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f.Low;
else;
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pstate == ready || pstate == lowstop;
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cMethane!pstate;
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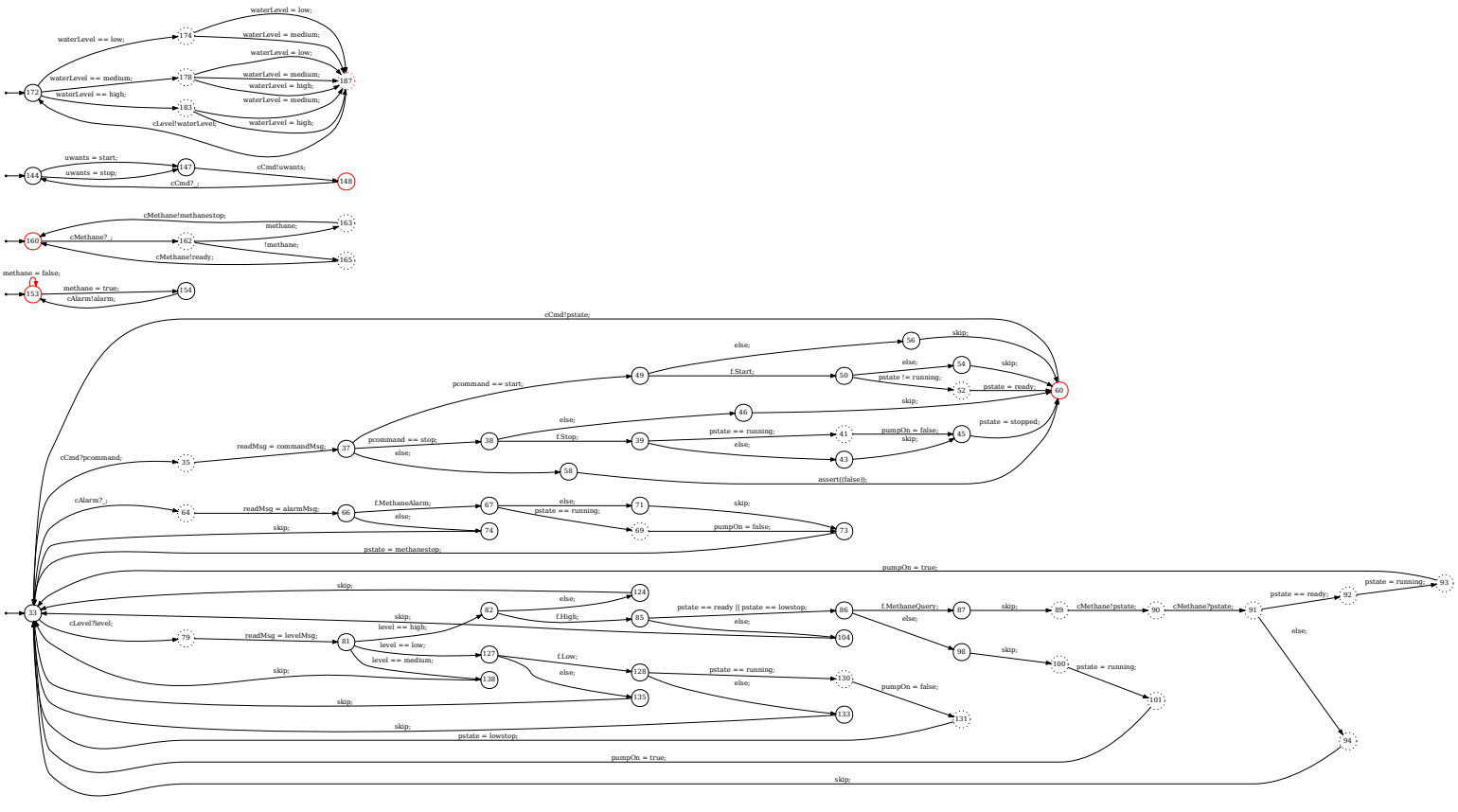
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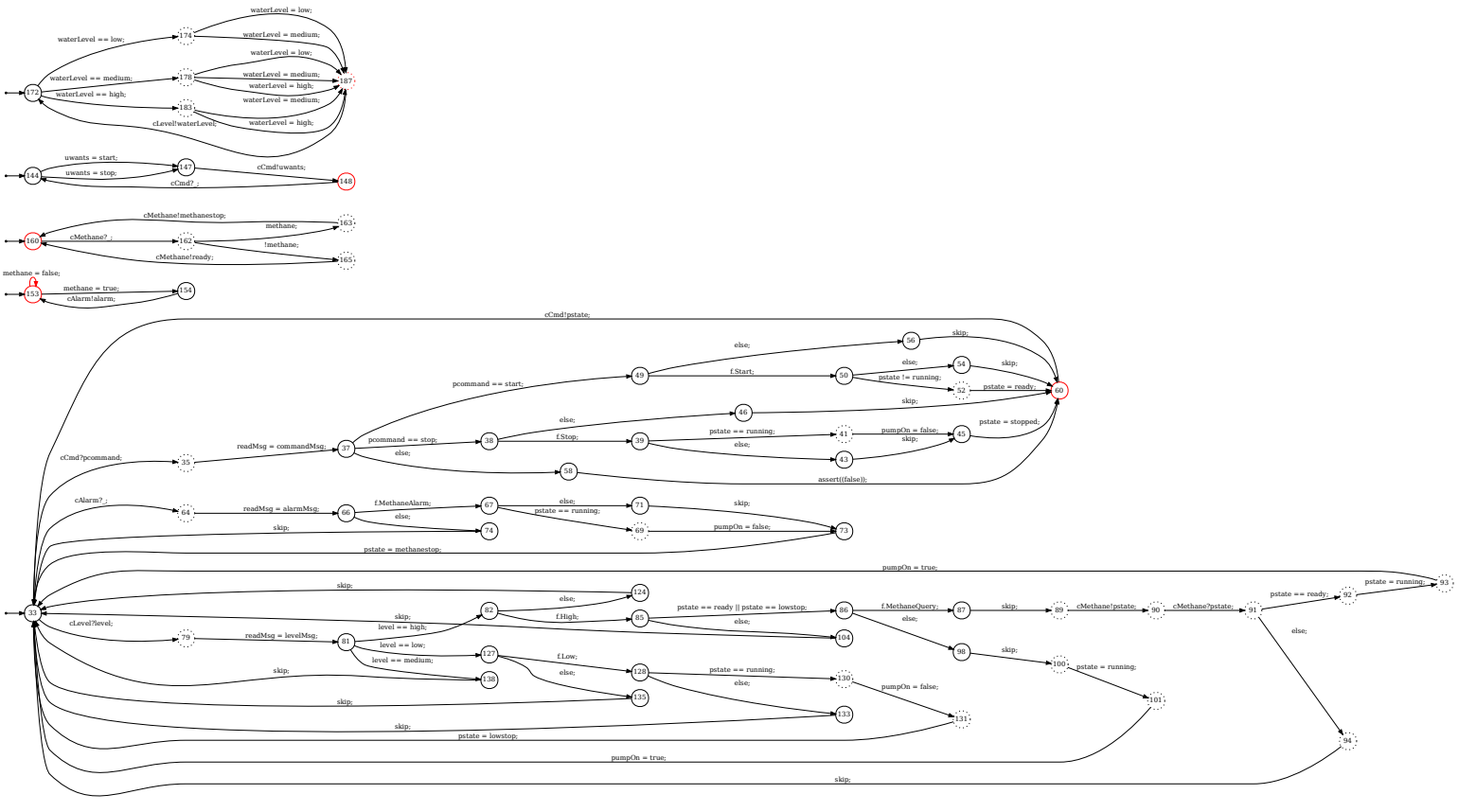
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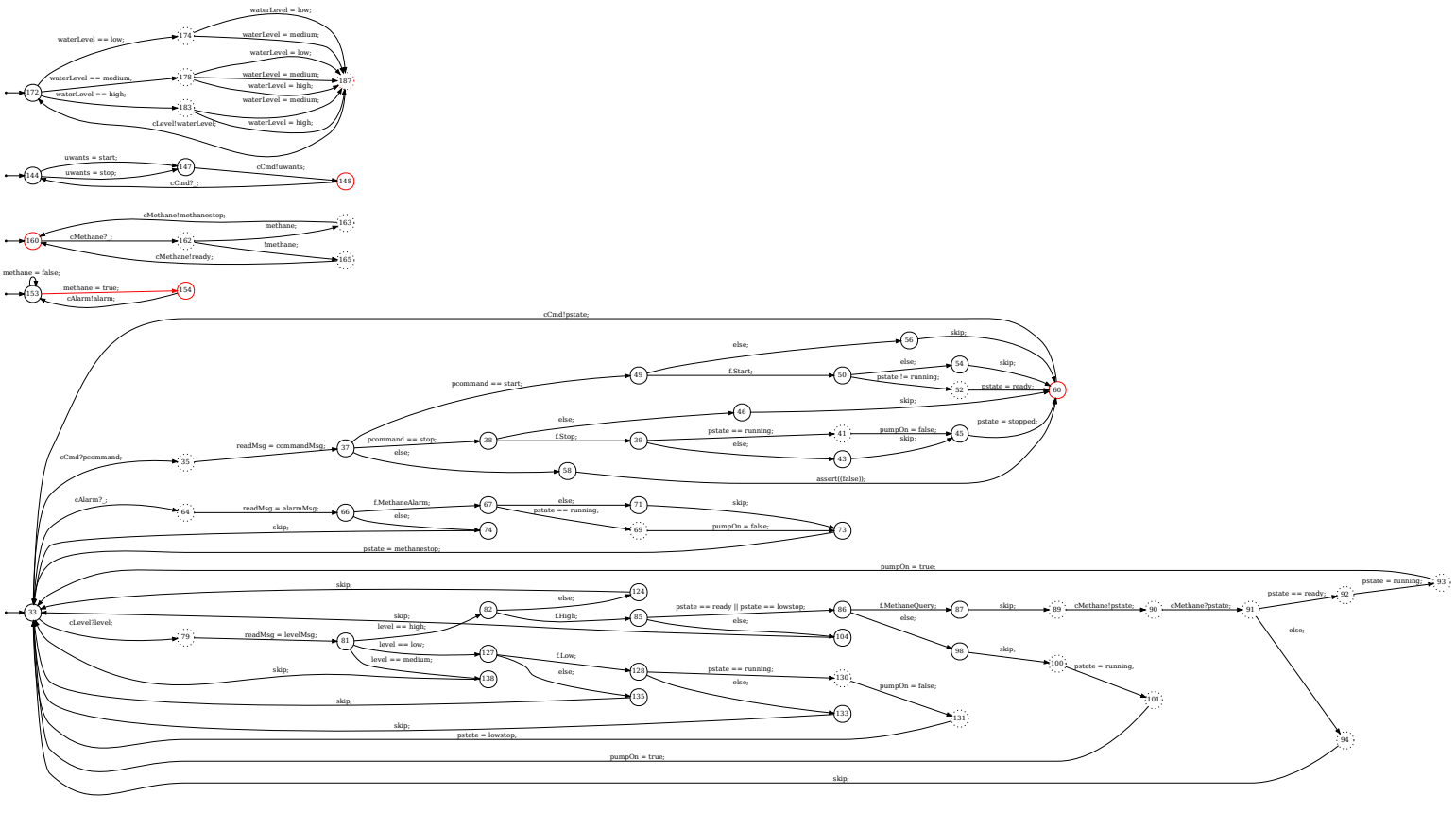
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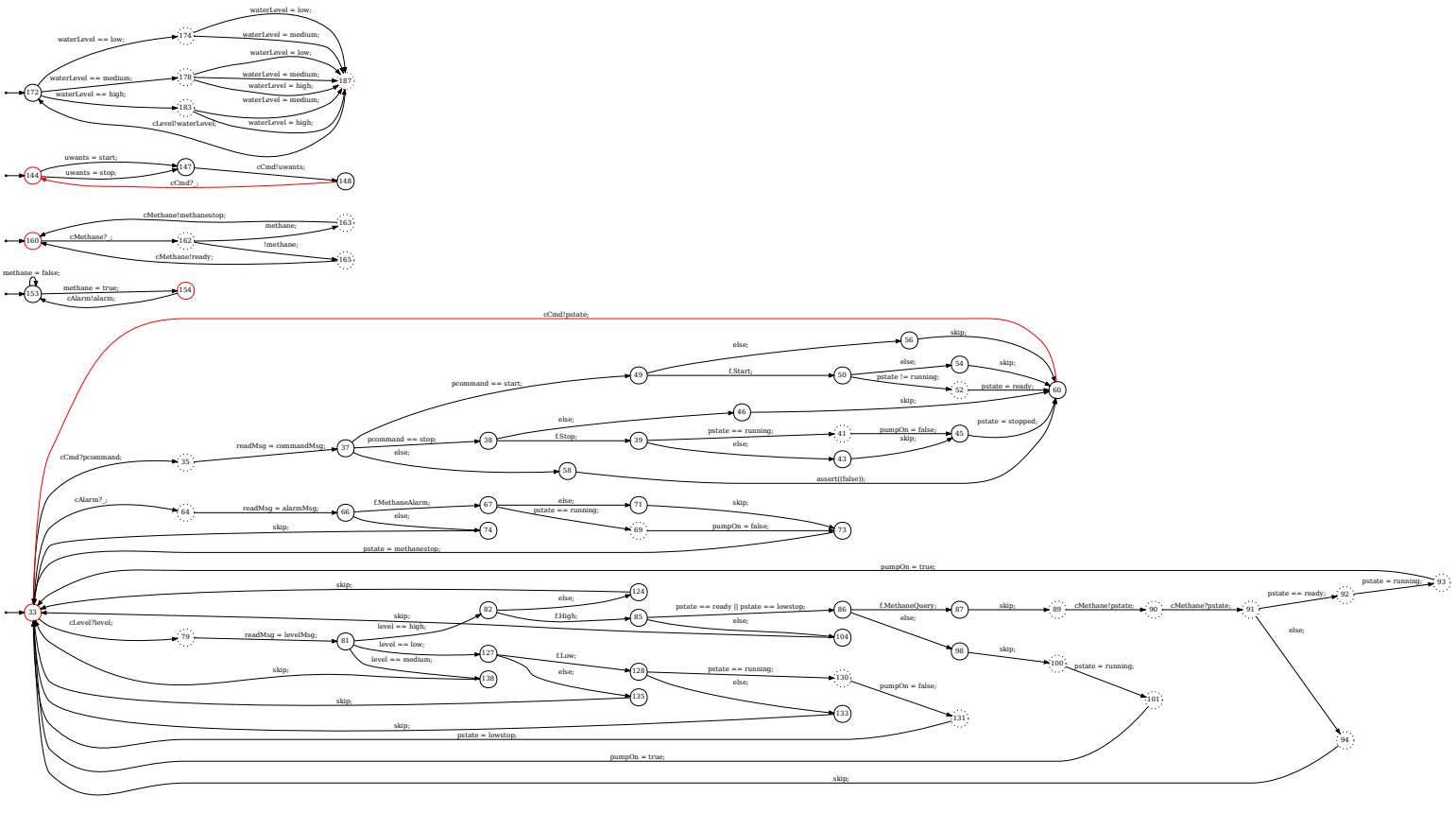
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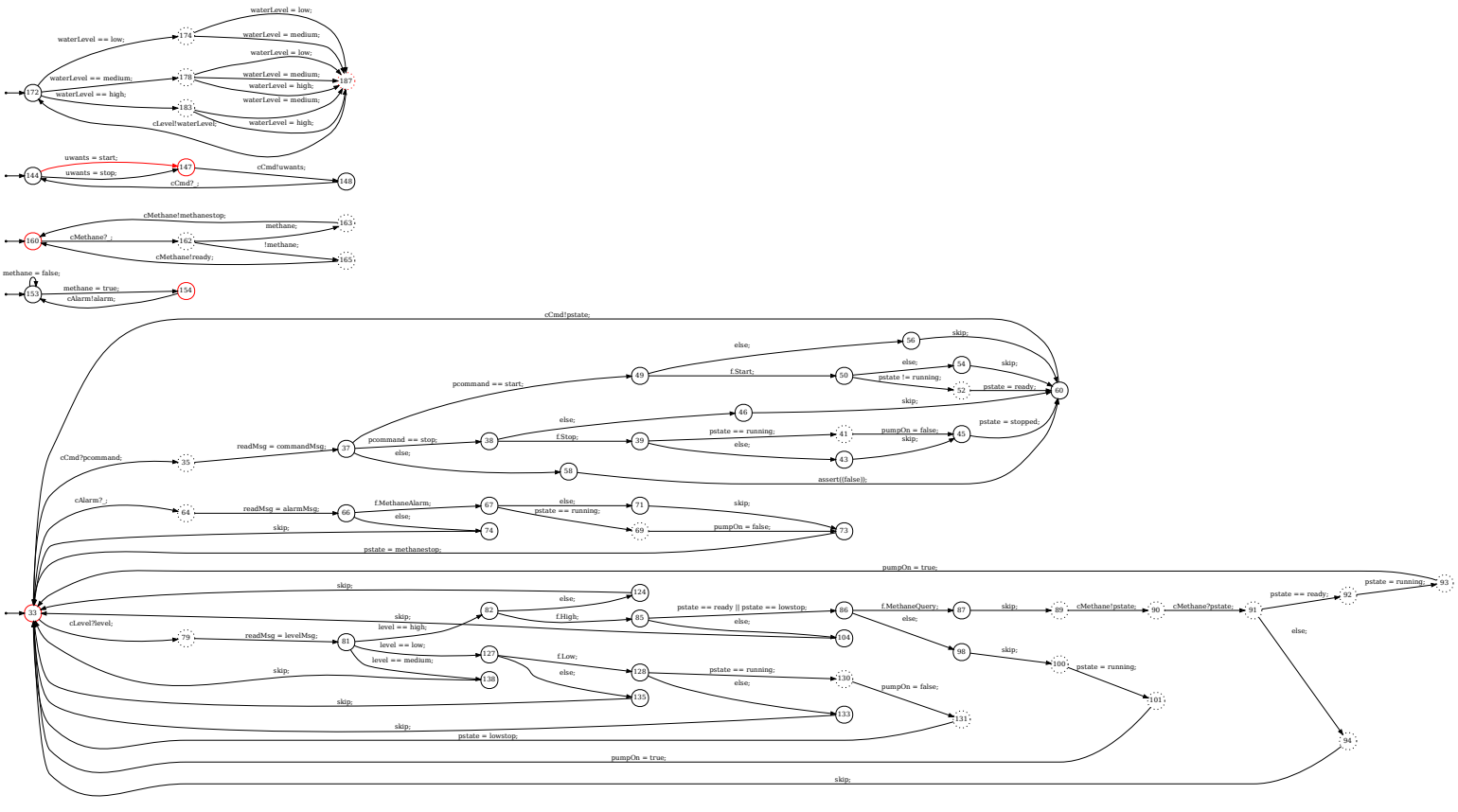
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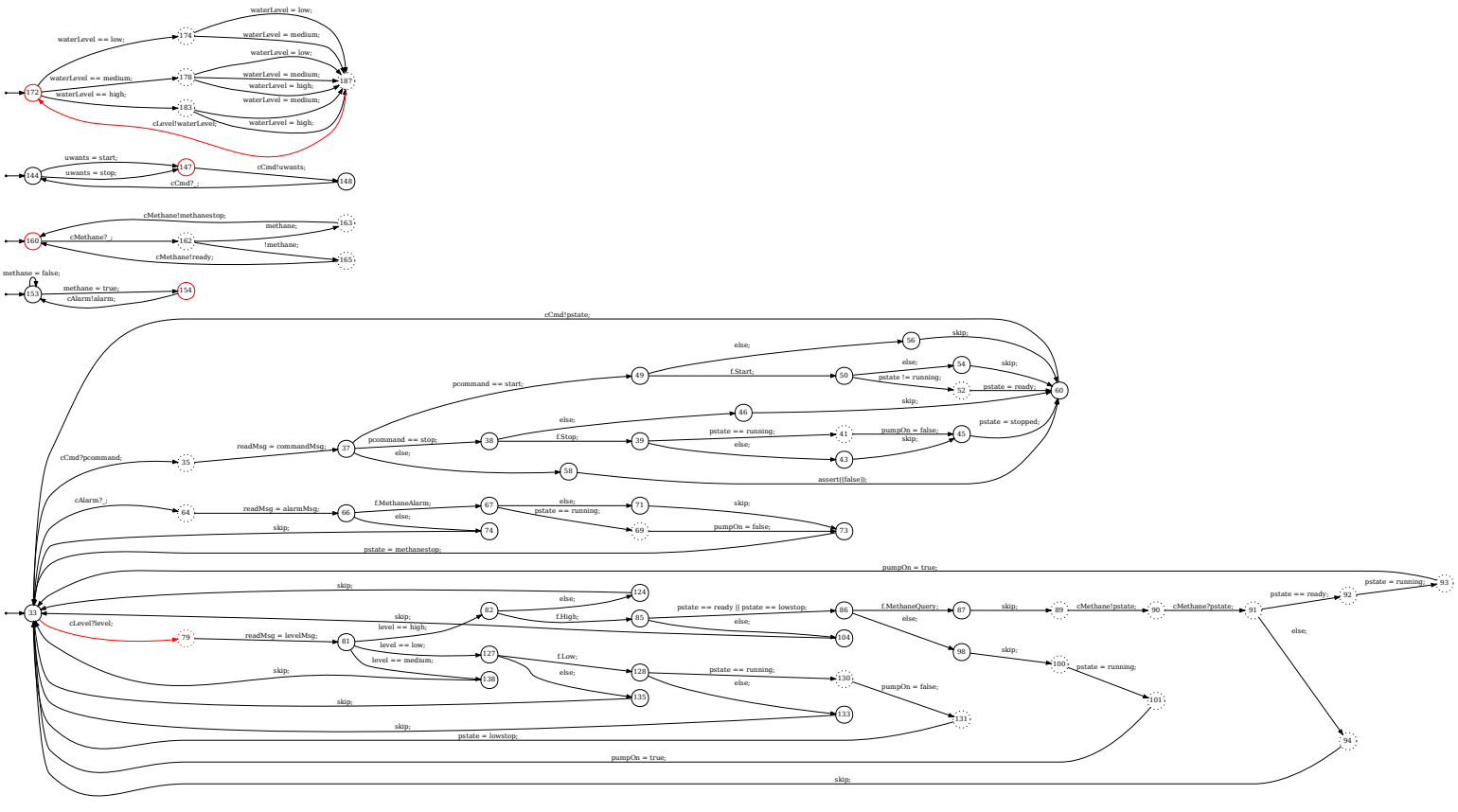
pstate = running;
101
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
138
135
skip;
skip;
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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pstate == ready;
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pstate = running;
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pumpOn = false;
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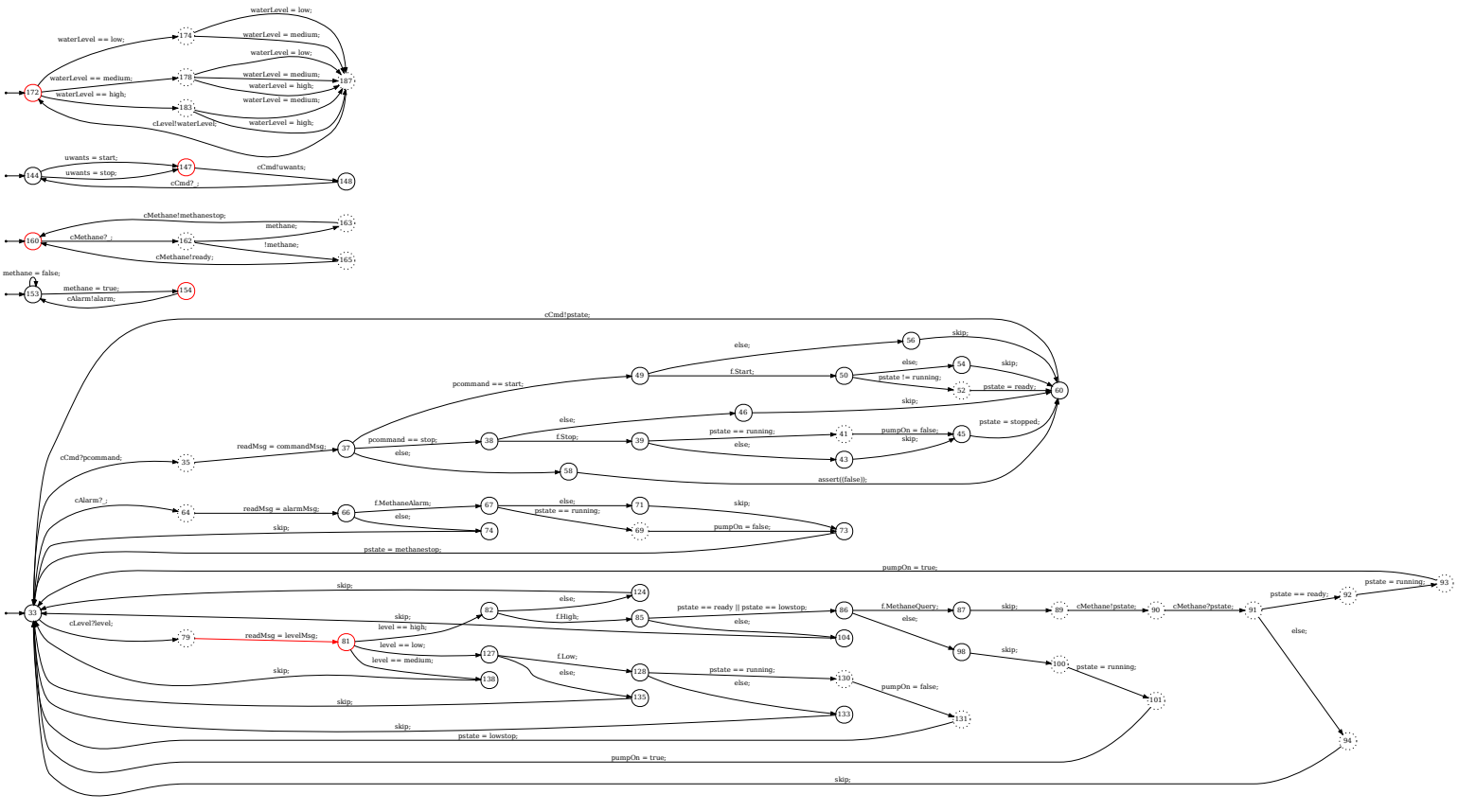
skip;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waterLevel == high;
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methane = true;
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54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
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cAlarm? ;
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readMsg = alarmMsg;
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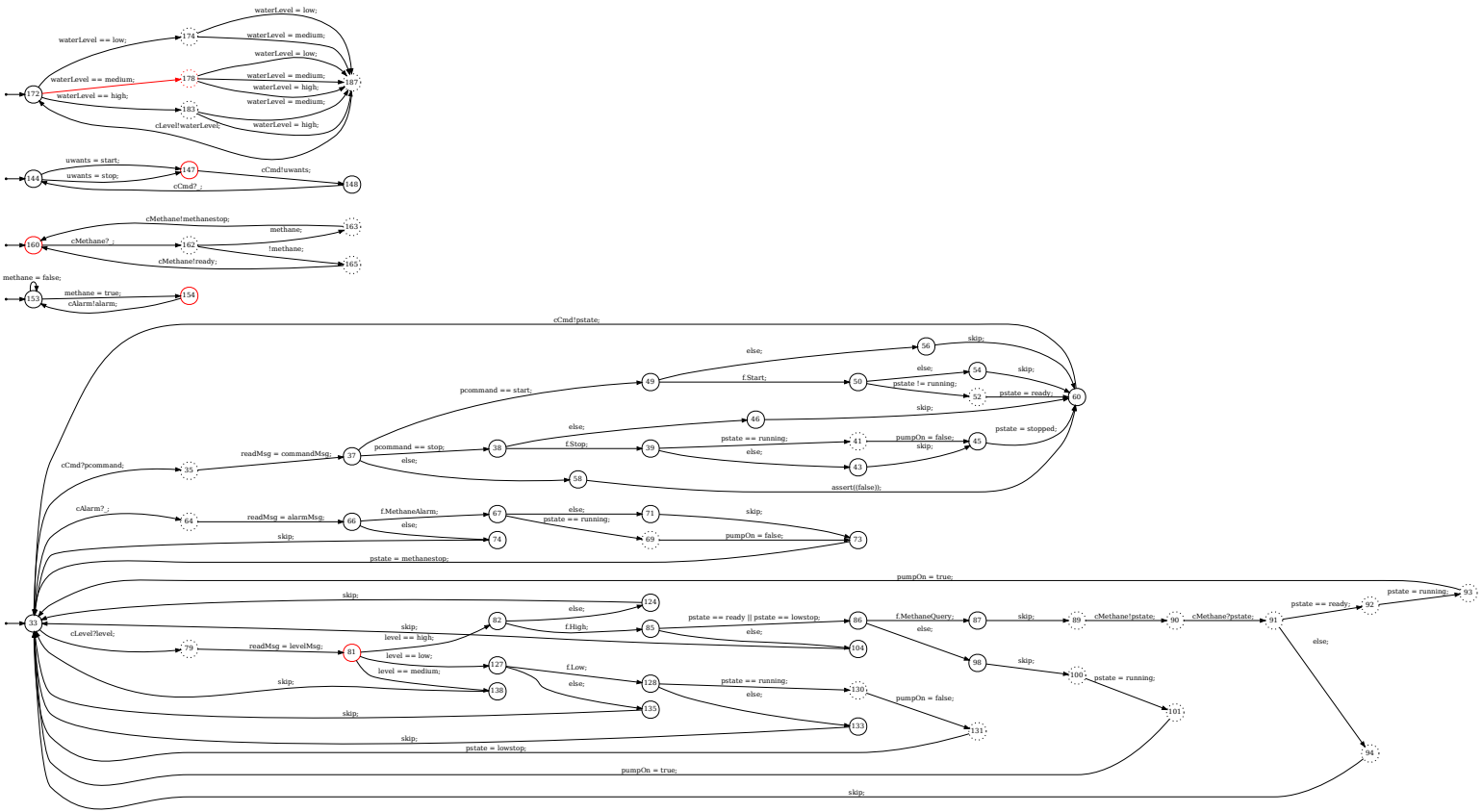
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49
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52
54
56
58
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cCmd?pcommand;
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pcommand == stop;
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skip;
f.Start;
pstate != running;
pstate = ready;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
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79
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cMethane?pstate;
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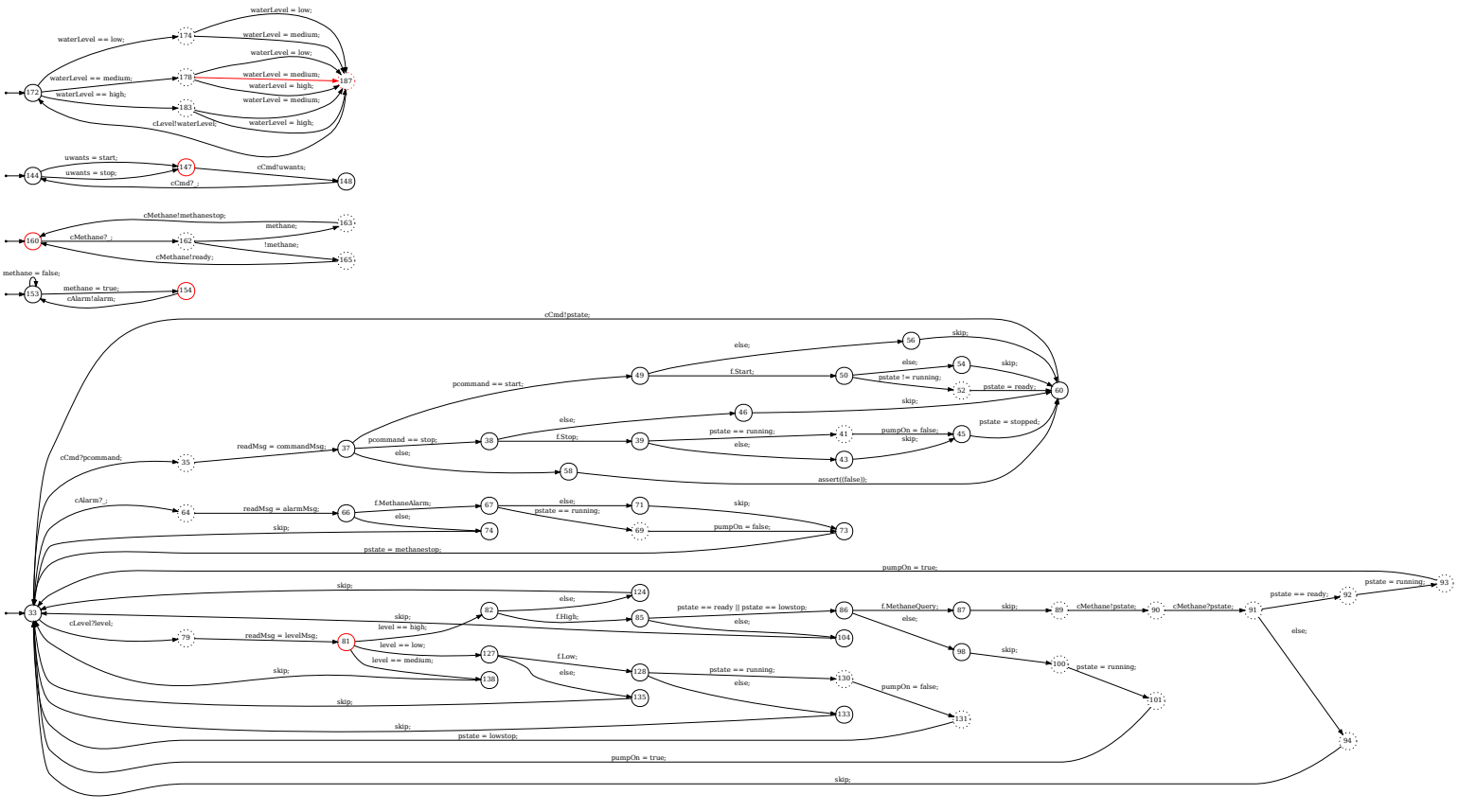
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waterLevel = medium;
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waterLevel = high;
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pumpOn = false;
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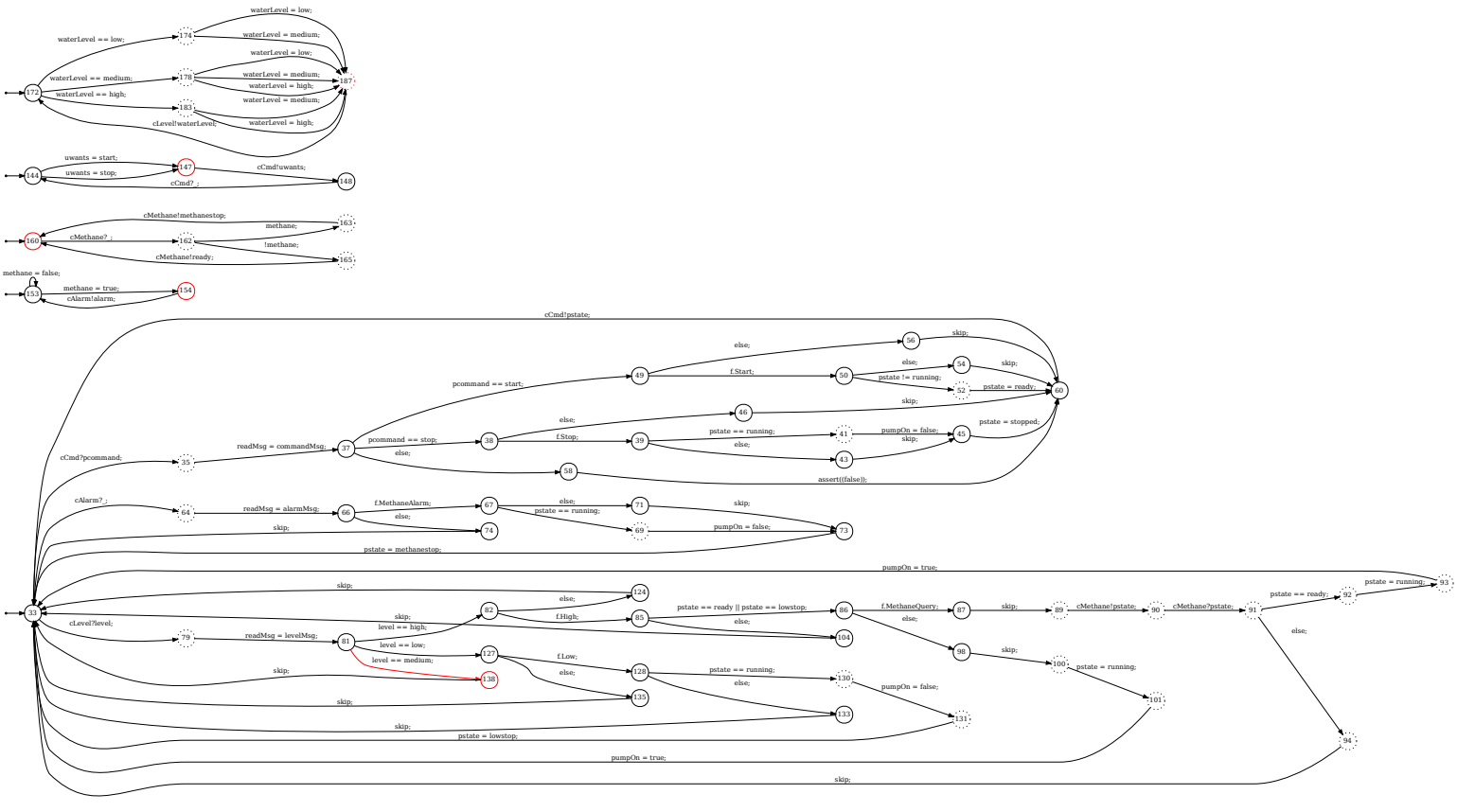
skip;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waterLevel == medium;
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waterLevel = high;
waterLevel == high;
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waterLevel = high;
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else;
54
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else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
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skip;
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assert((false));
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skip;
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pstate = running;
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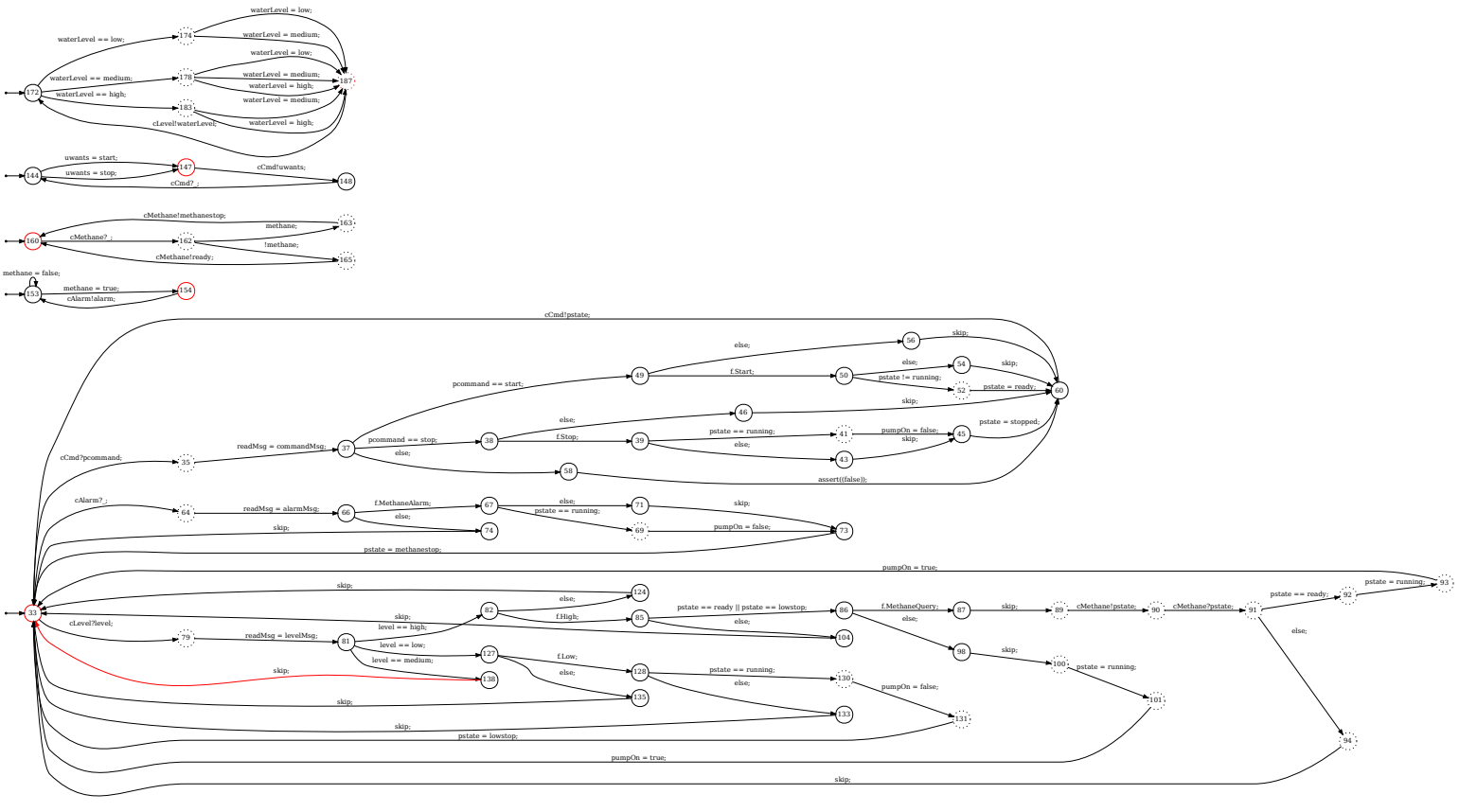
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waterLevel = low;
waterLevel = medium;
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waterLevel = high;
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cCmd!uwants;
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162
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methane;
!methane;
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methane = true;
cAlarm!alarm;
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124
127
128
130
131
133
135
138
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
f.Start;
skip;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
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f.MethaneQuery;
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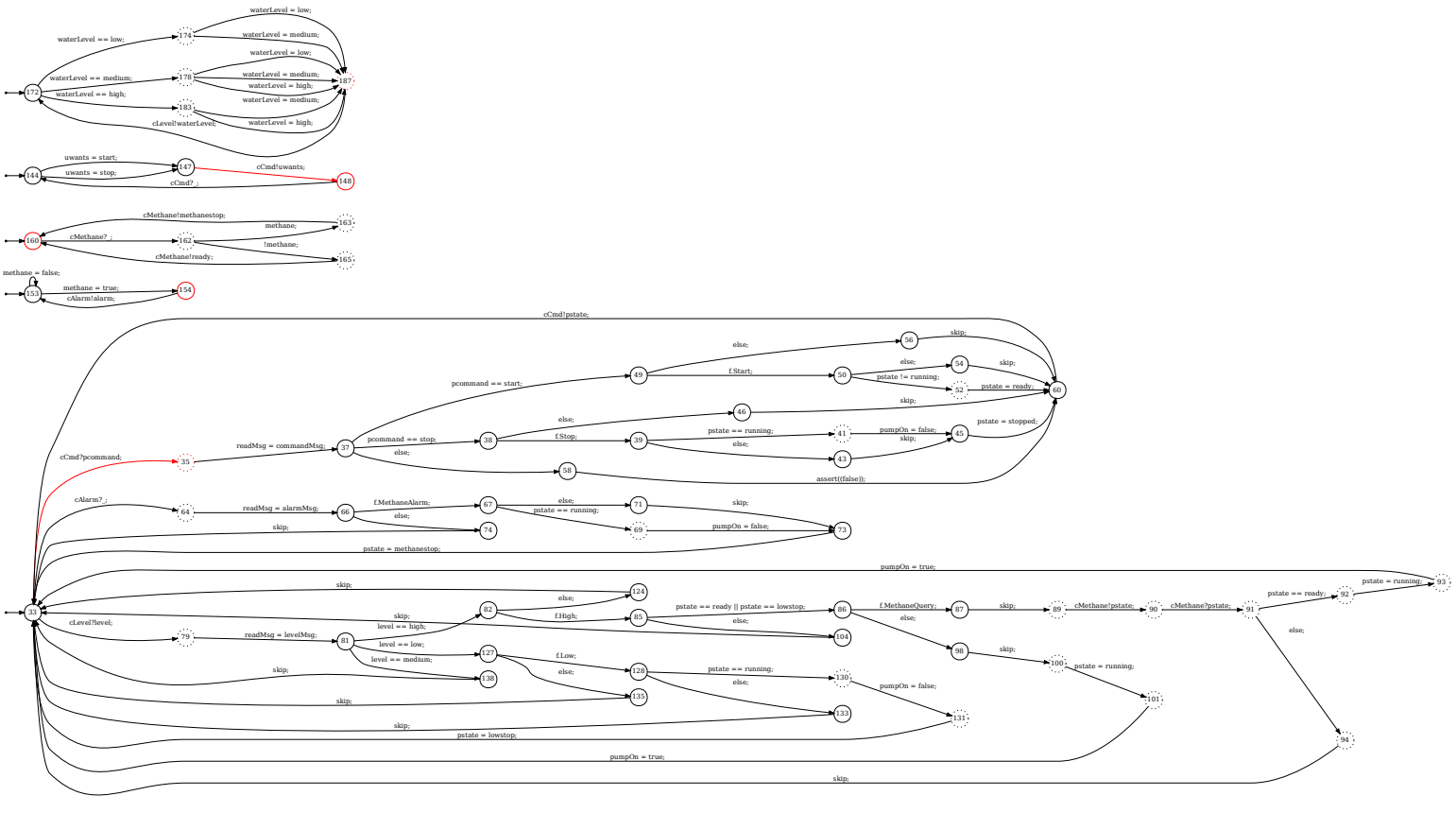
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel = medium;
waterLevel = high;
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187
144
uwants = start;
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160
cMethane? ;
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pstate != running;
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pcommand == start;
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cCmd?pcommand;
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readMsg = commandMsg;
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f.Low;
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138
135
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86
f.MethaneQuery;
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pumpOn = true;
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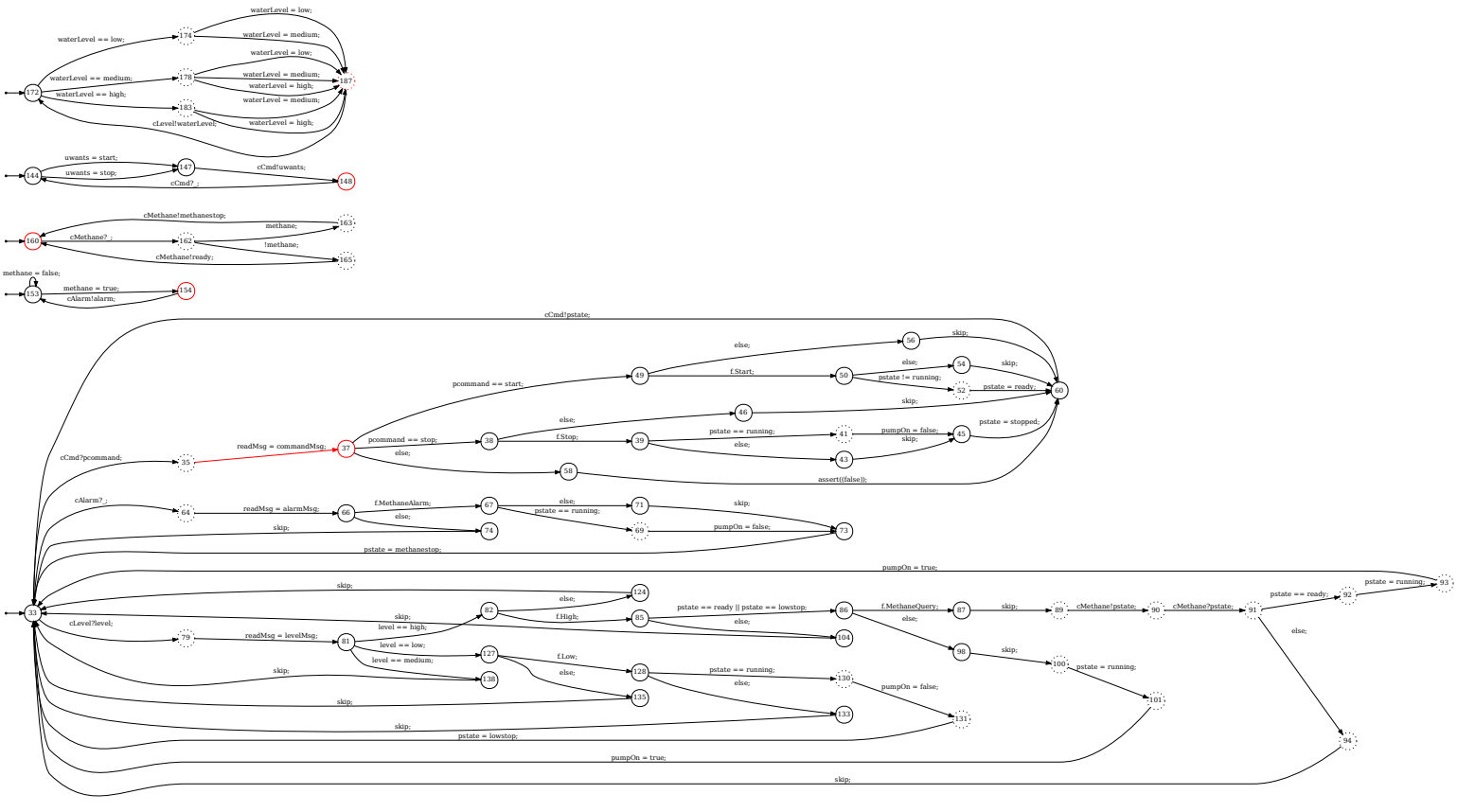
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waterLevel = low;
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144
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f.Start;
pcommand == start;
46
skip;
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41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
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pcommand == stop;
37
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58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
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pstate = lowstop;
pstate == ready || pstate == lowstop;
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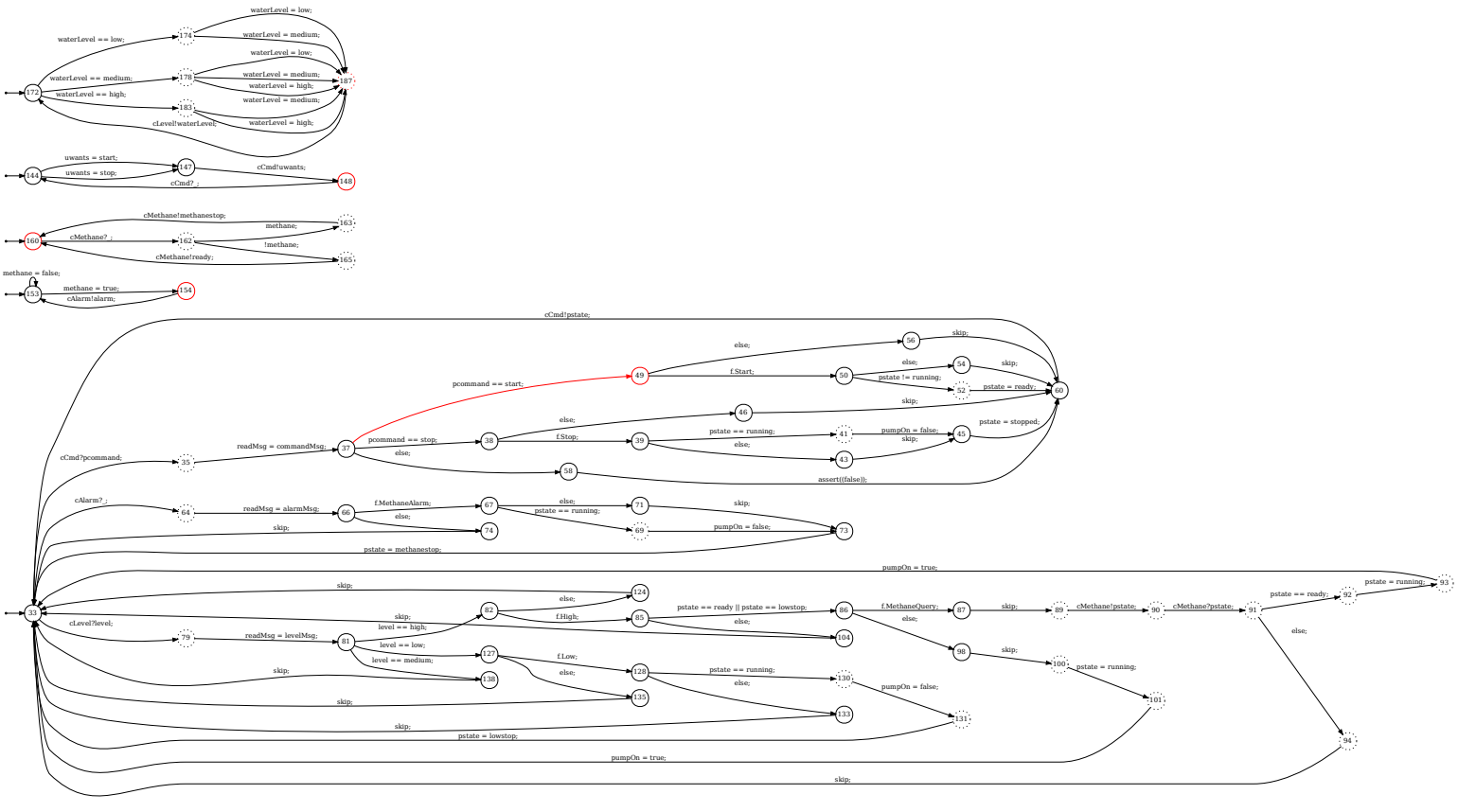
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39
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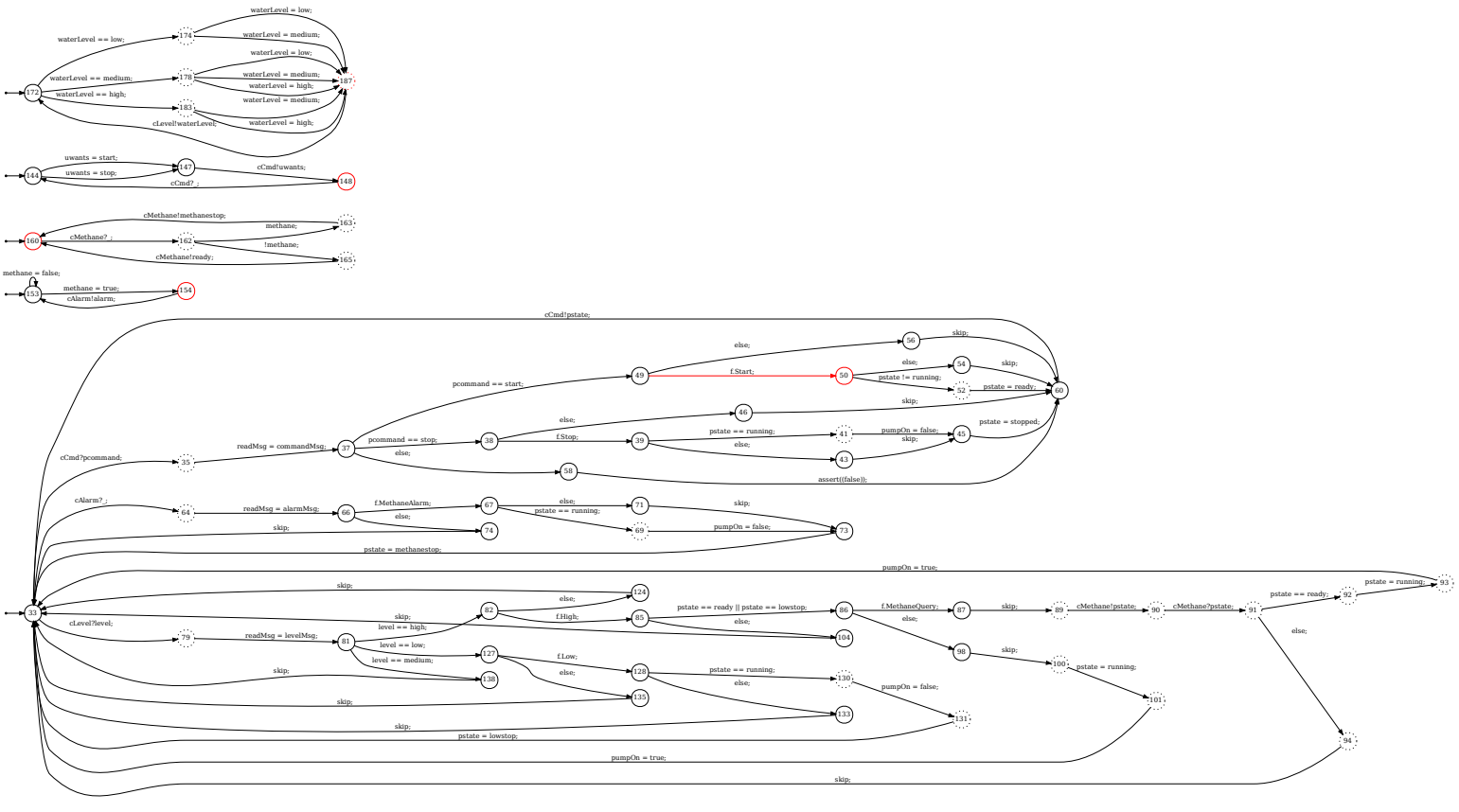
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else;
49
pcommand == start;
f.Start;
50
pstate != running;
52
pstate = ready;
60
skip;
46
else;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
38
else;
f.Stop;
39
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
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else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
89
skip;
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
100
pstate = running;
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else;
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skip;
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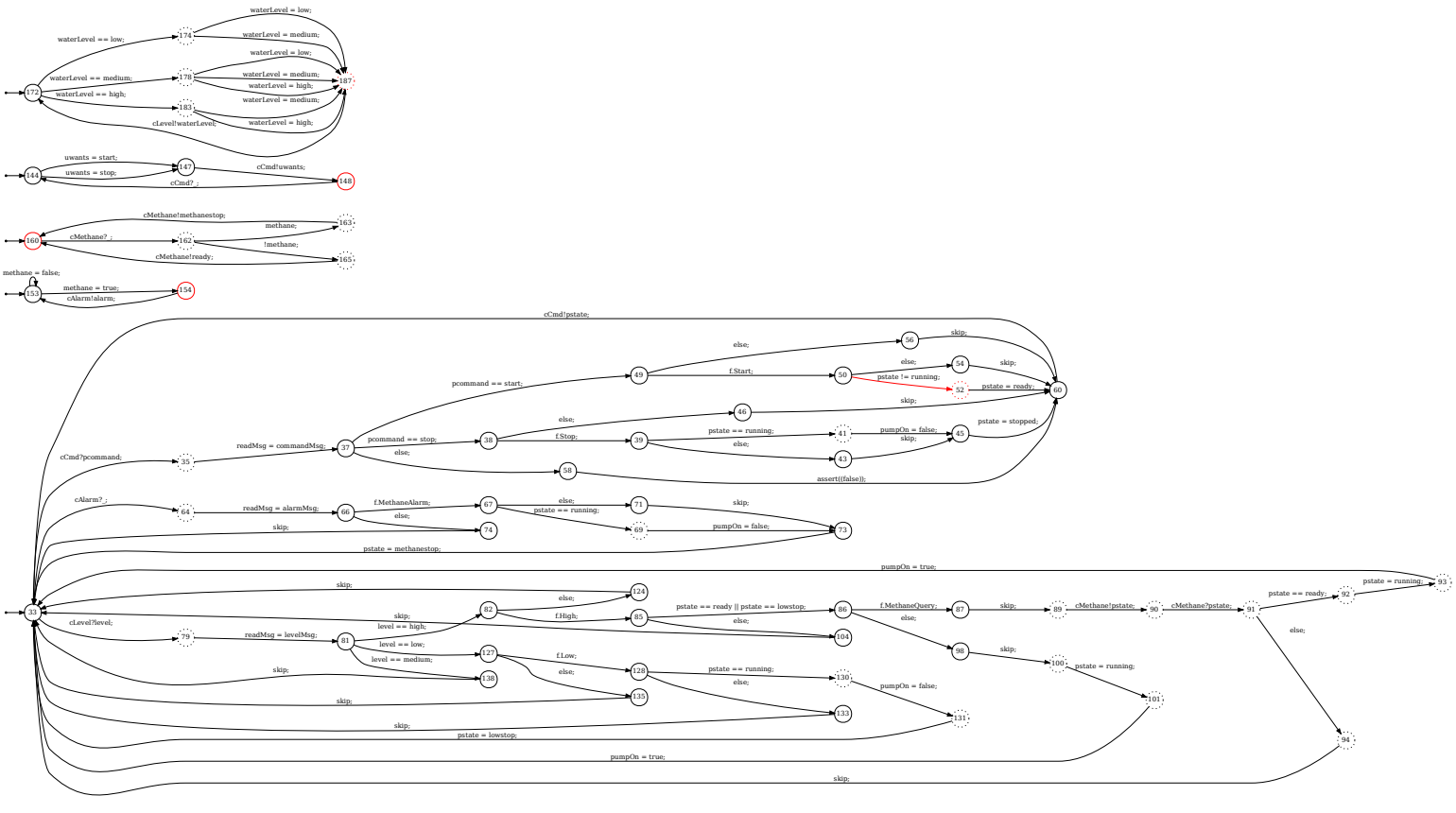
skip;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waterLevel == low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
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148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
49
f.Start;
pstate != running;
52
pstate = ready;
60
skip;
46
pcommand == start;
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
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38
39
f.Stop;
else;
58
assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
37
pcommand == stop;
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64
readMsg = alarmMsg;
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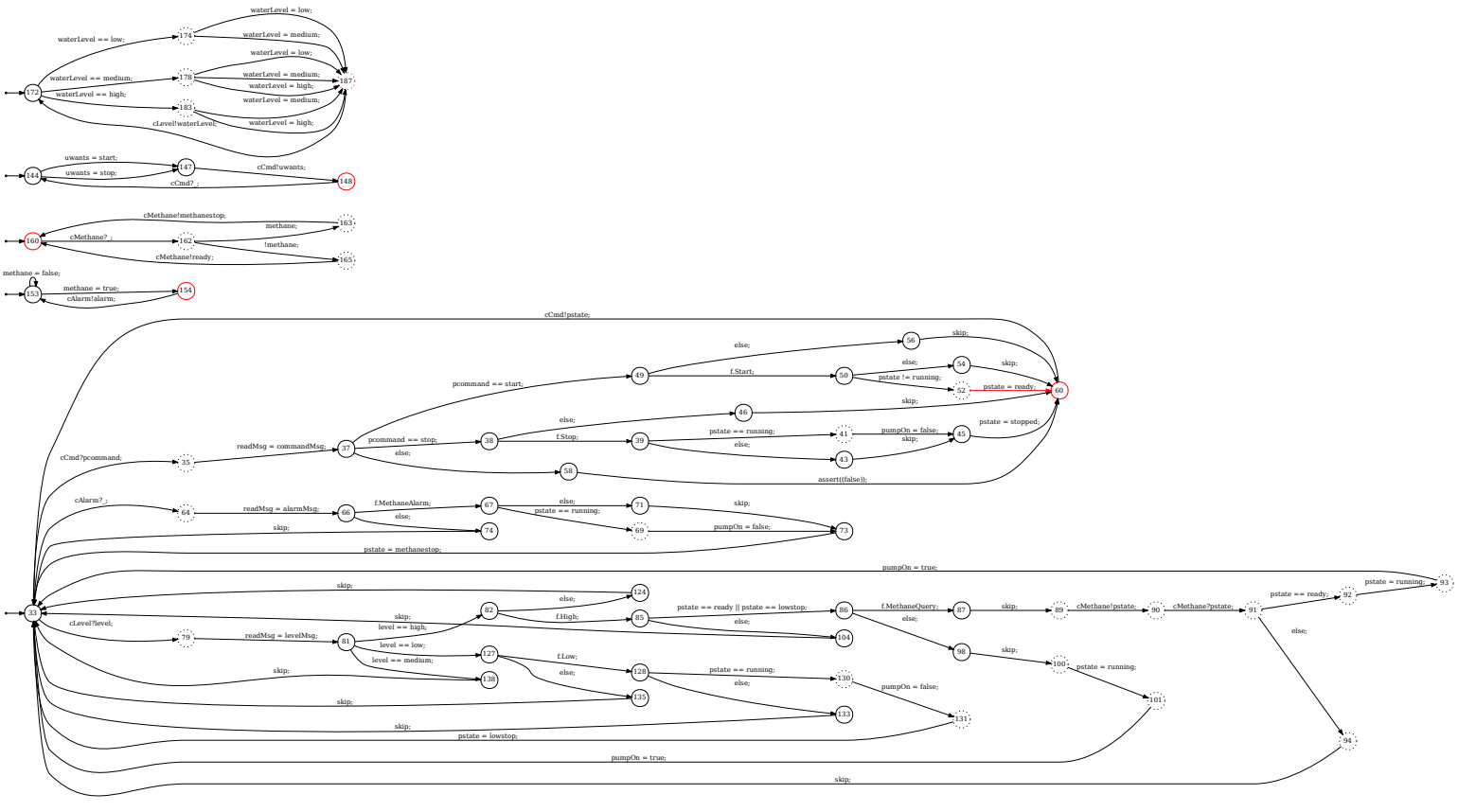
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waterLevel = high;
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cLevel!waterLevel;
waterLevel = high;
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uwants = start;
uwants = stop;
cCmd!uwants;
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160
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163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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skip;
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pcommand == start;
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skip;
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level == low;
127
f.Low;
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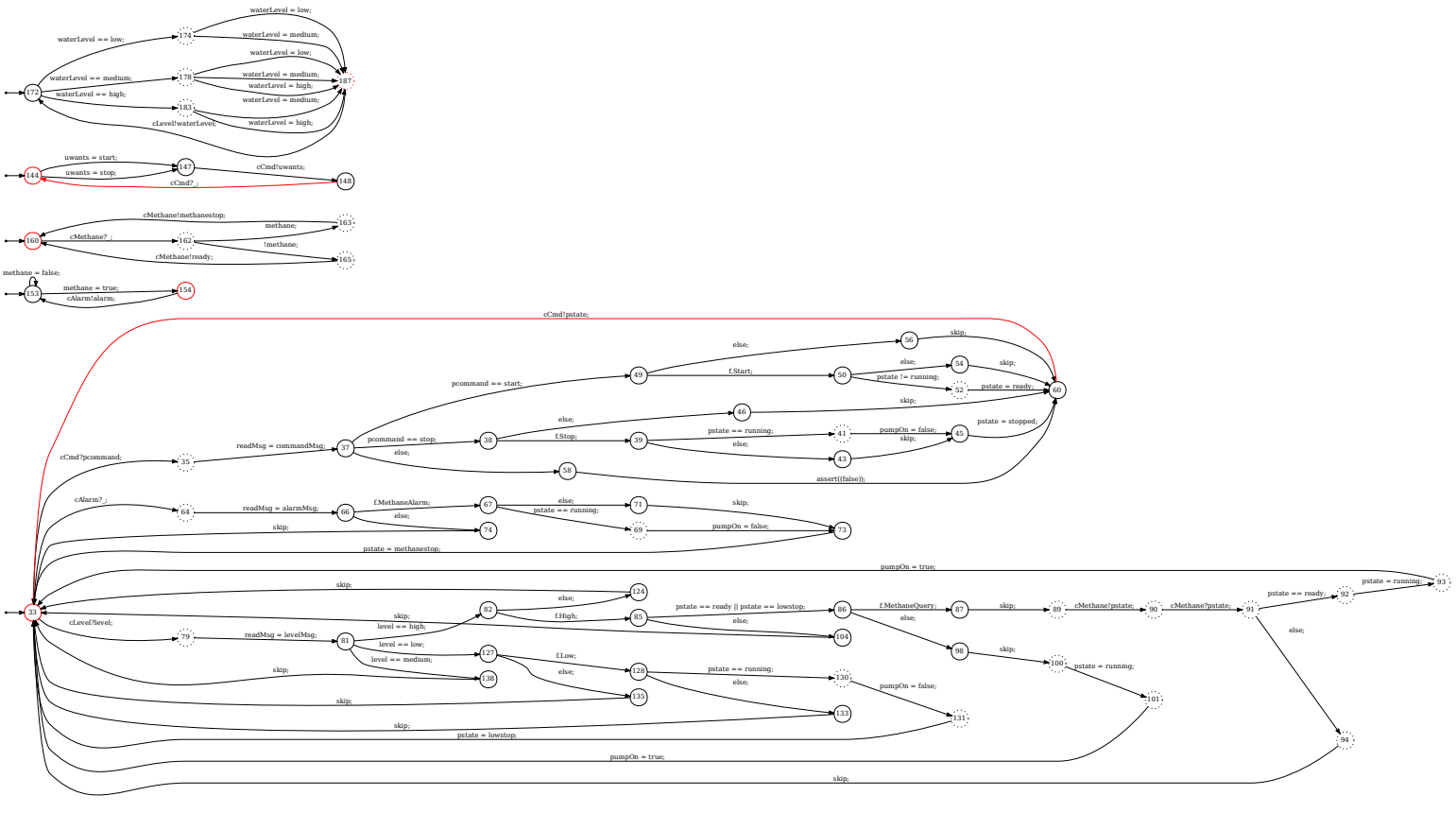
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waterLevel = high;
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waterLevel = high;
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148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
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cCmd!pstate;
56
skip;
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54
else;
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49
f.Start;
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87
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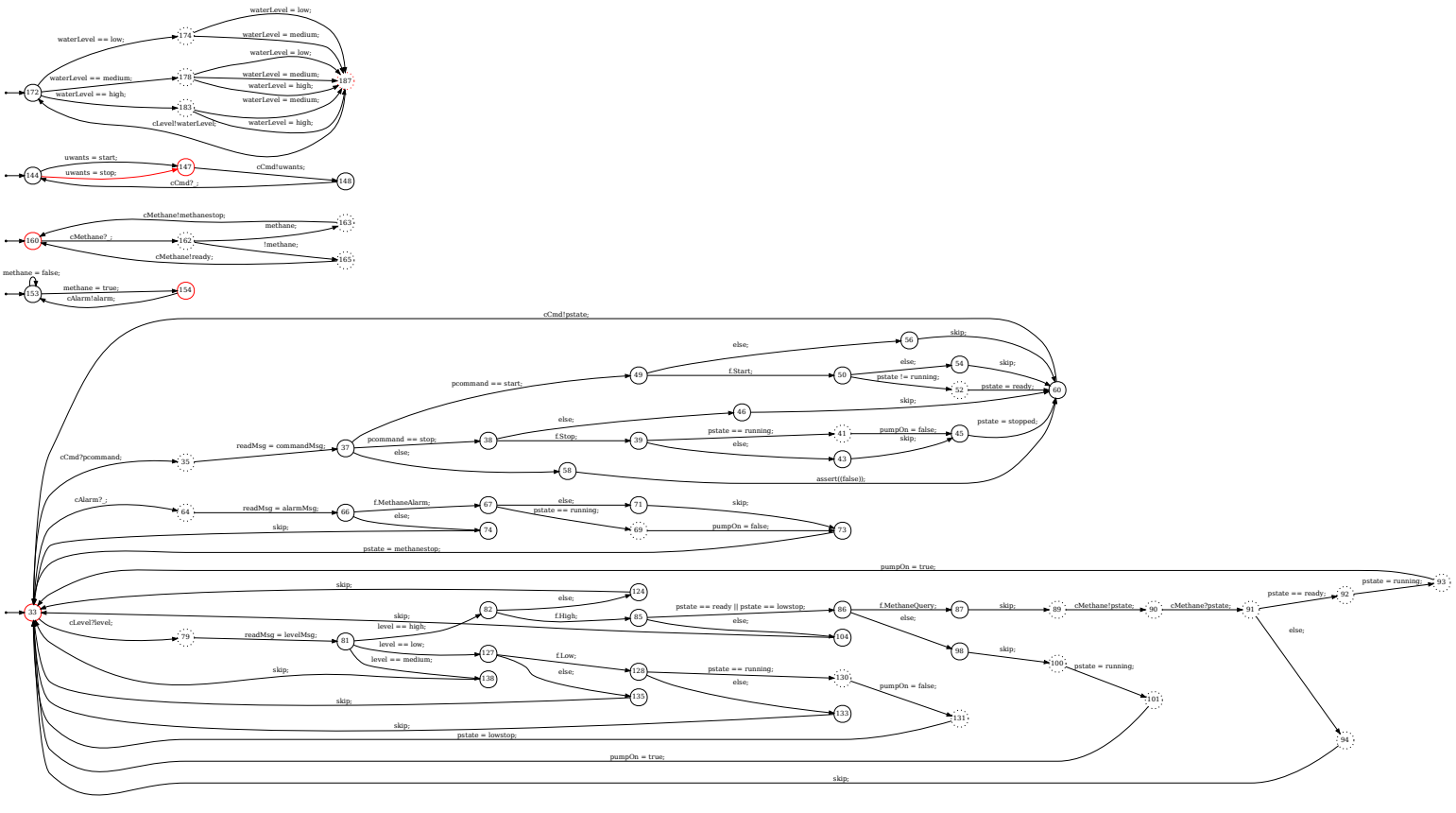
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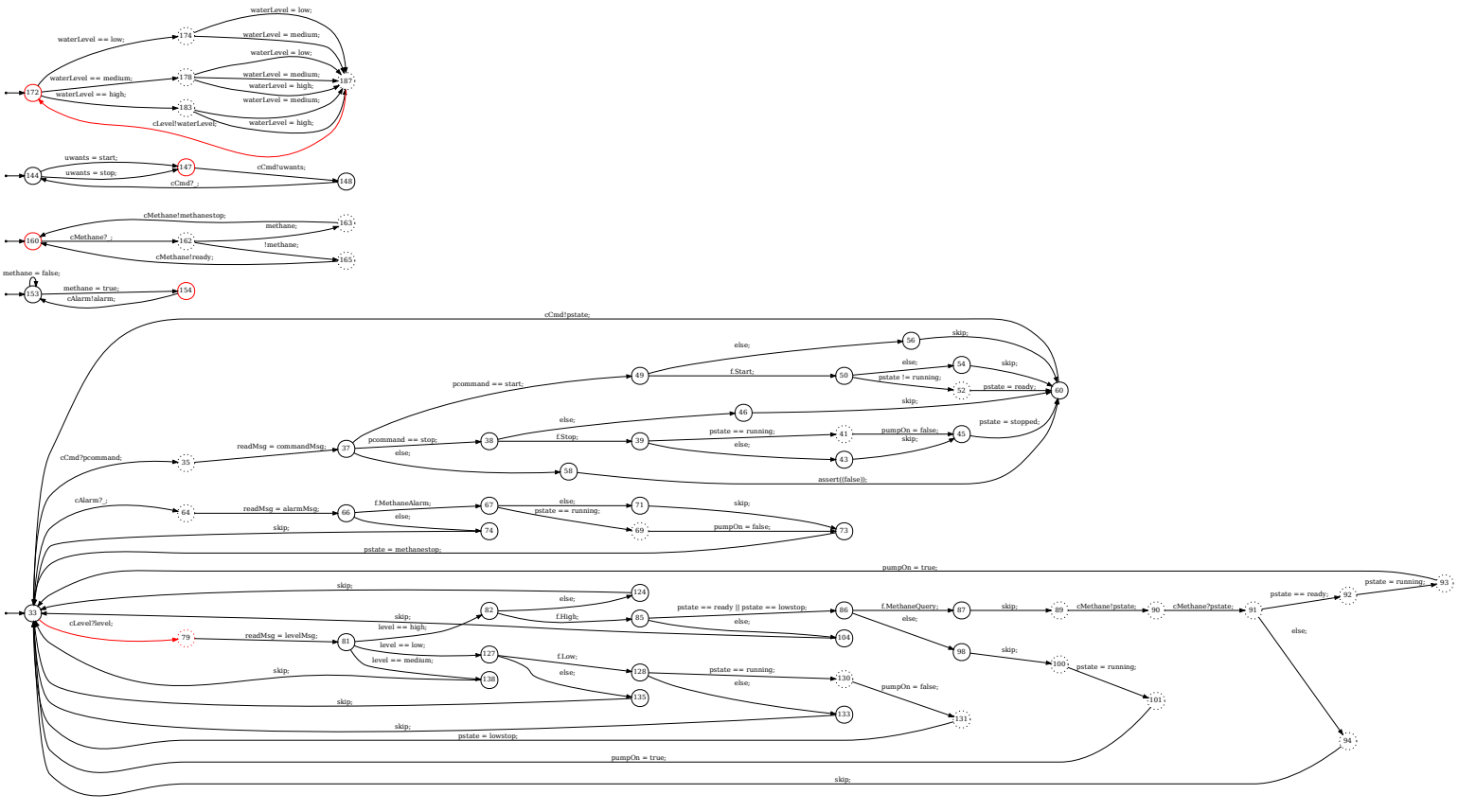
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waterLevel = medium;
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cCmd? ;
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163
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methane;
!methane;
cMethane!ready;
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pumpOn = false;
pstate = lowstop;
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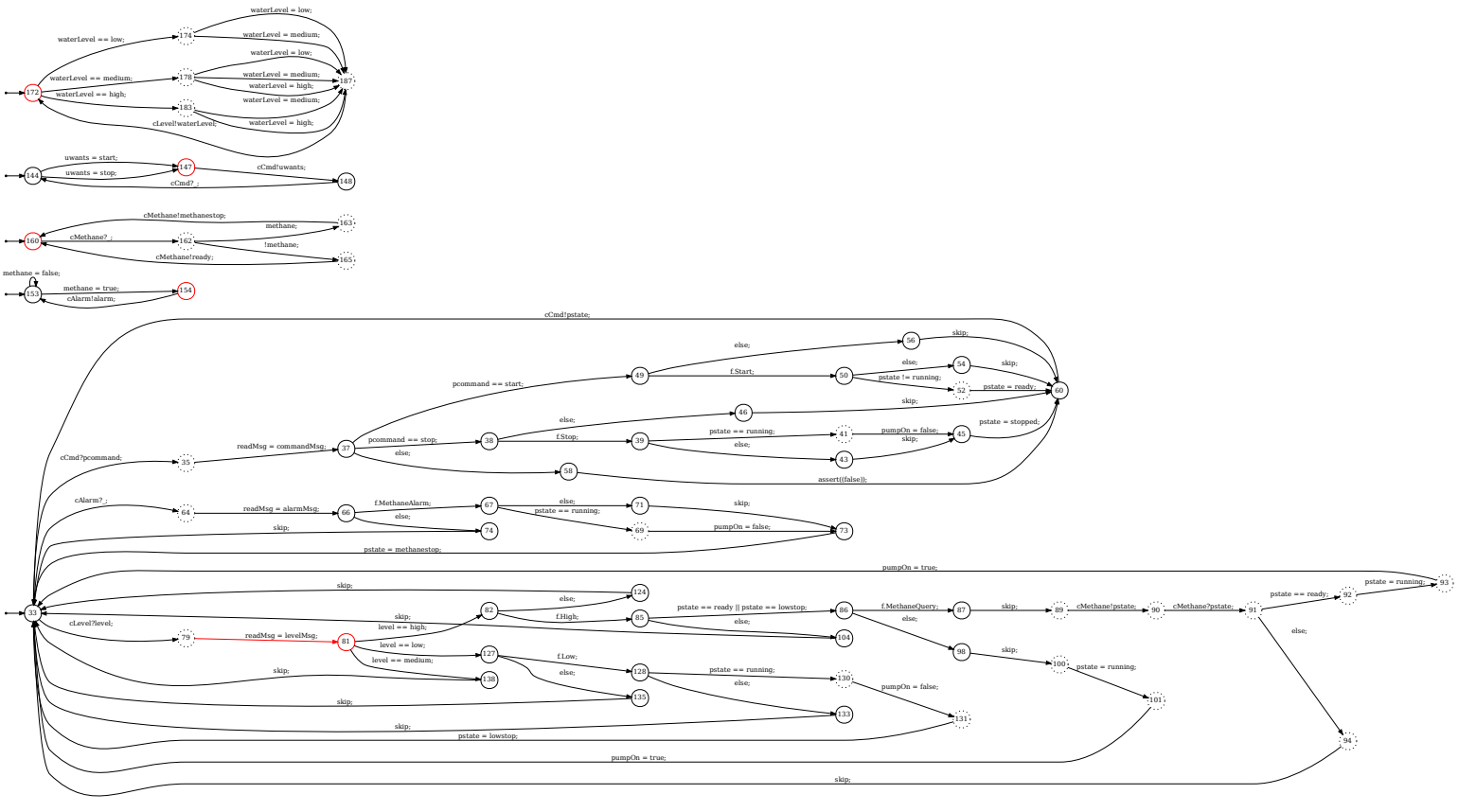
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waterLevel = high;
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162
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methane = false;
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cCmd?pcommand;
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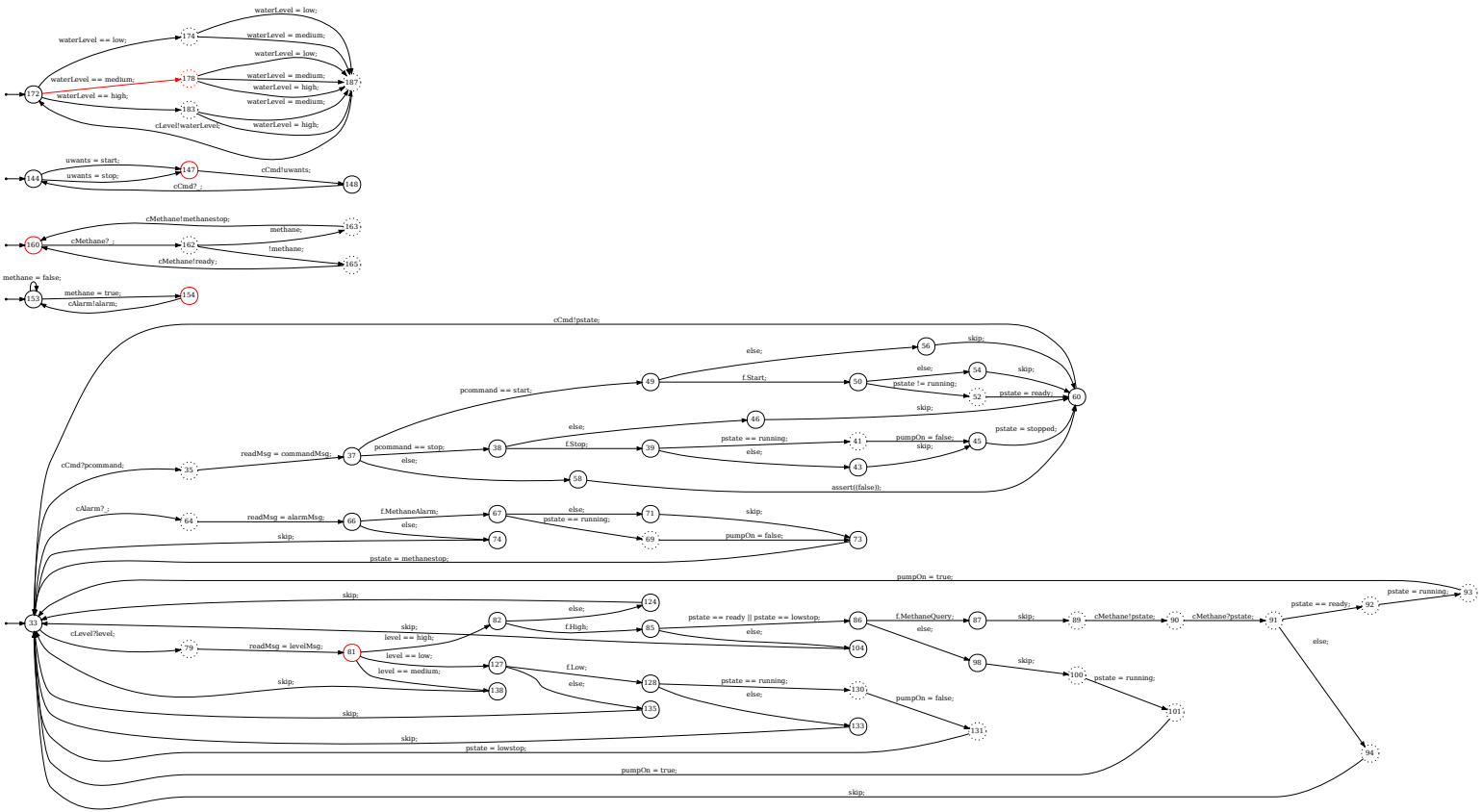
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
skip;
f.Start;
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pstate = ready;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
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cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
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cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
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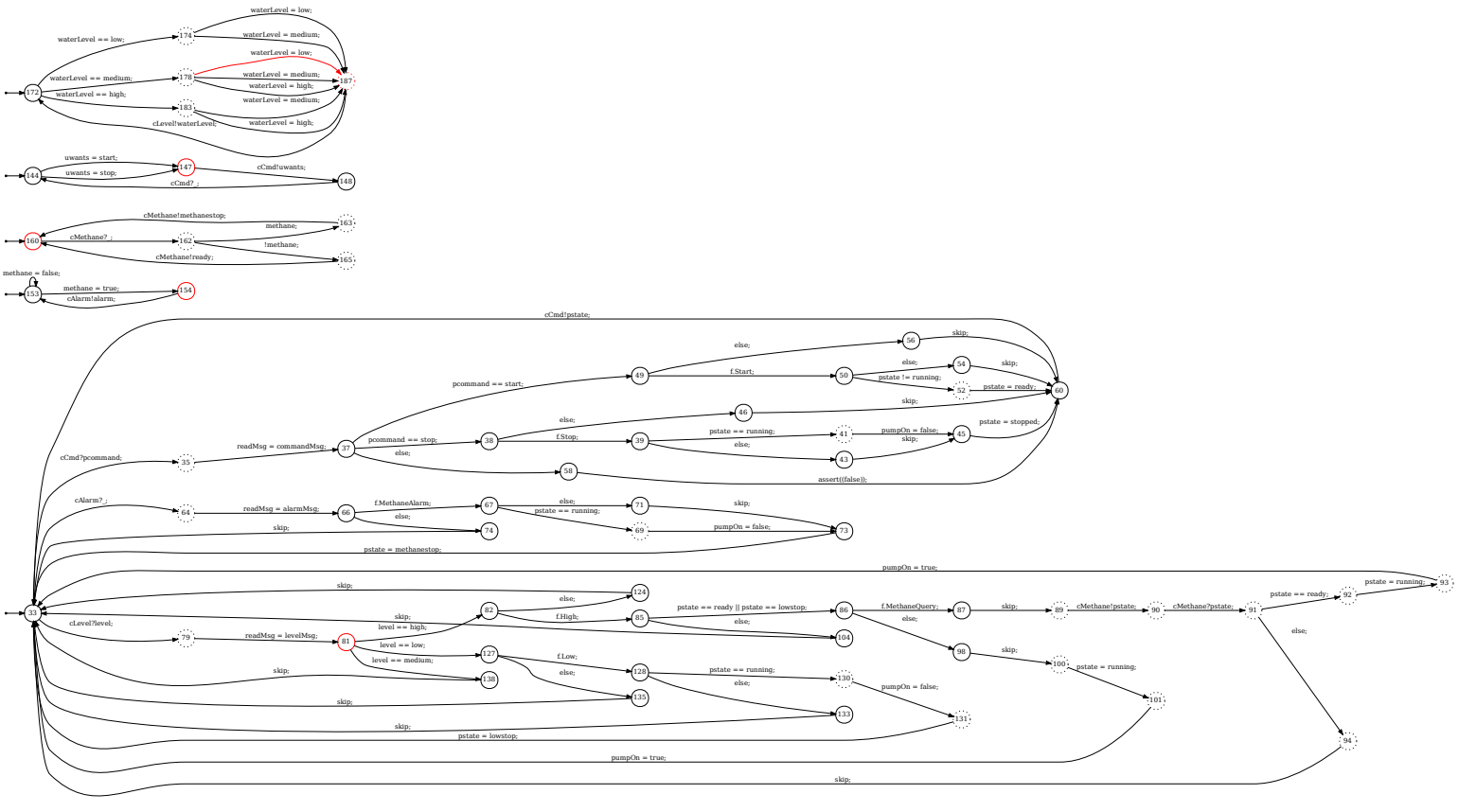
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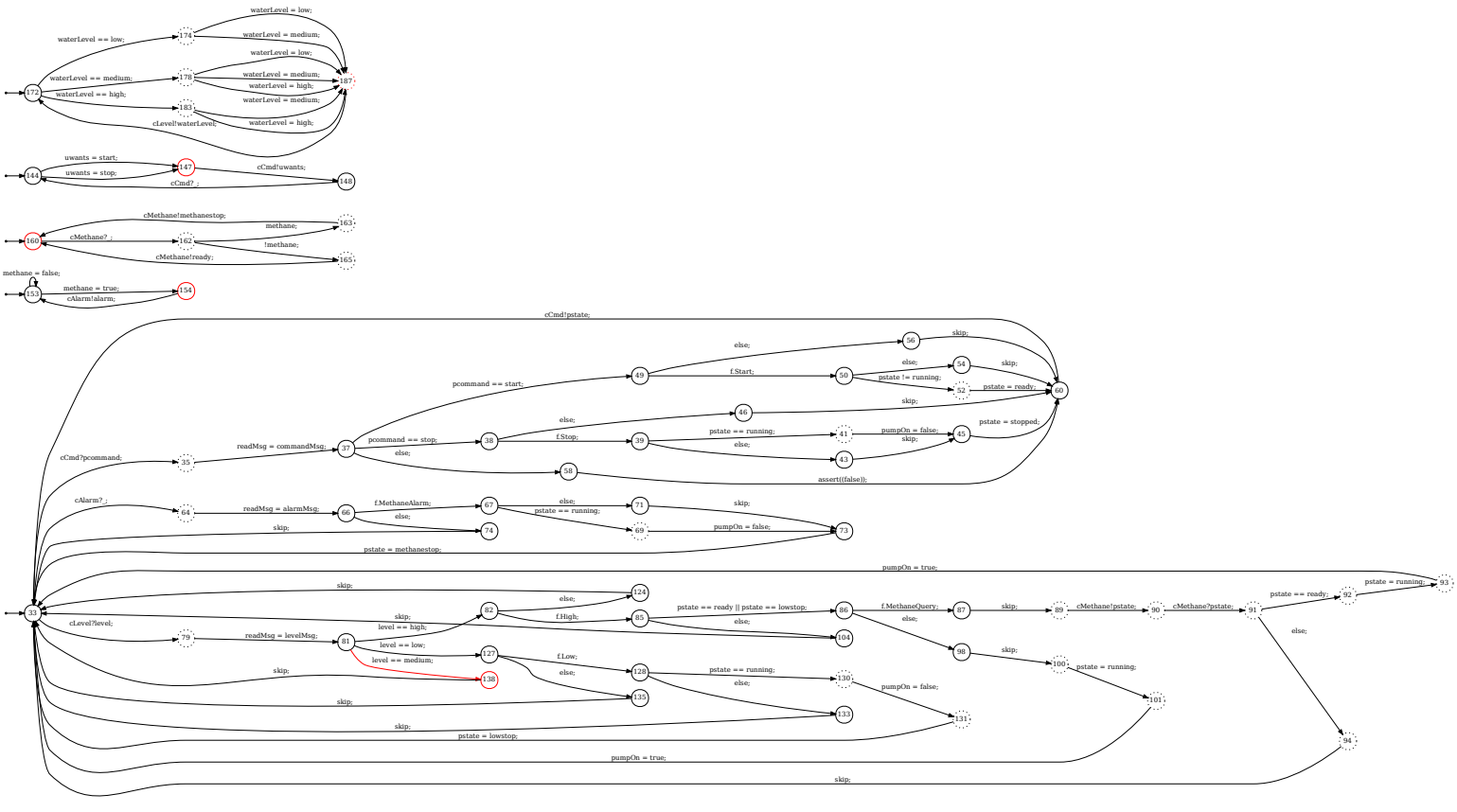
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level == medium;
138
135
skip;
skip;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
else;
pstate == running;
130
else;
pumpOn = false;
133
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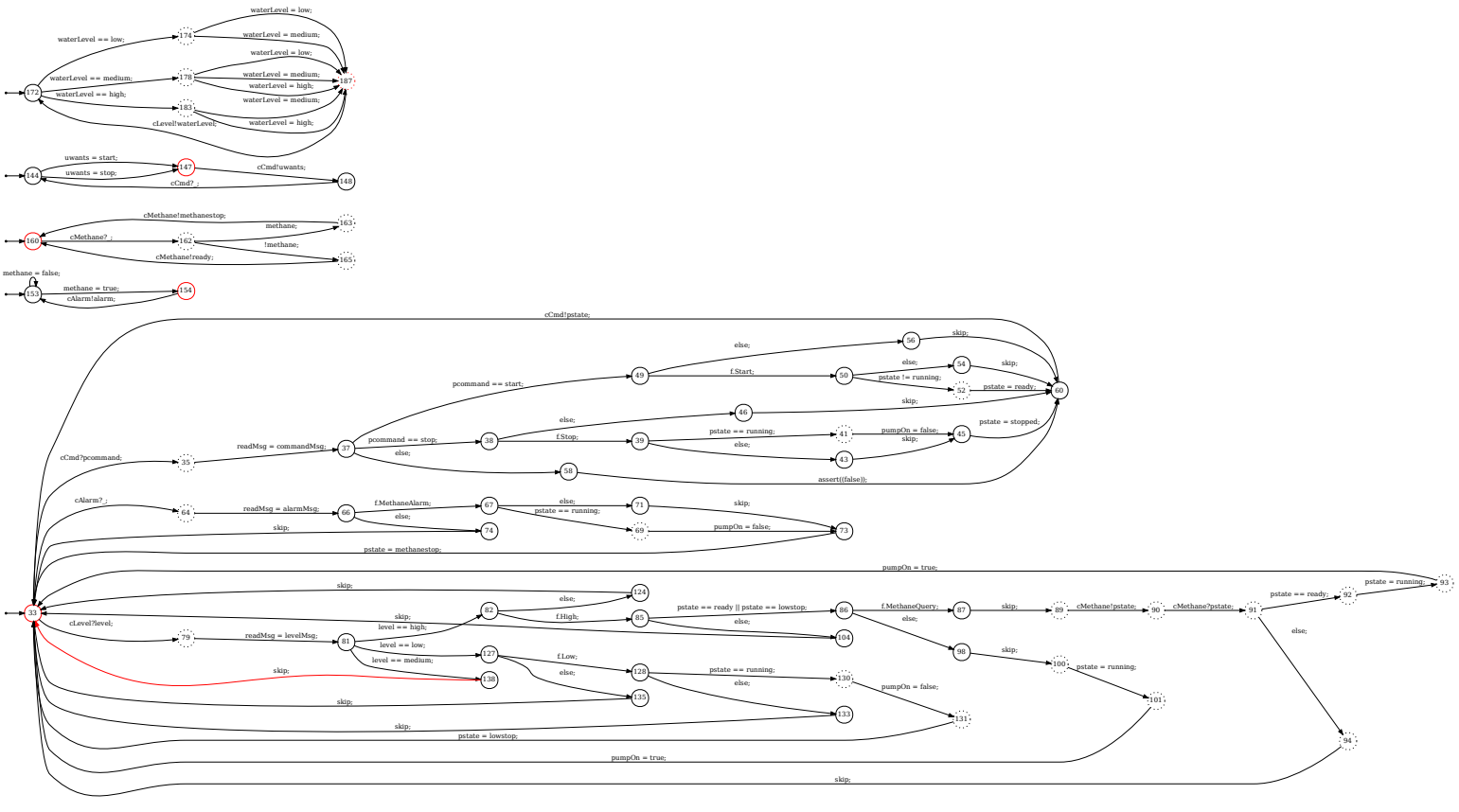
skip;
pstate = lowstop;
pumpOn = true;
skip;
94
pstate == ready;
92
pstate = running;
93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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
33
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100
101
104
124
127
128
130
131
133
135
138
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
f.Start;
skip;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
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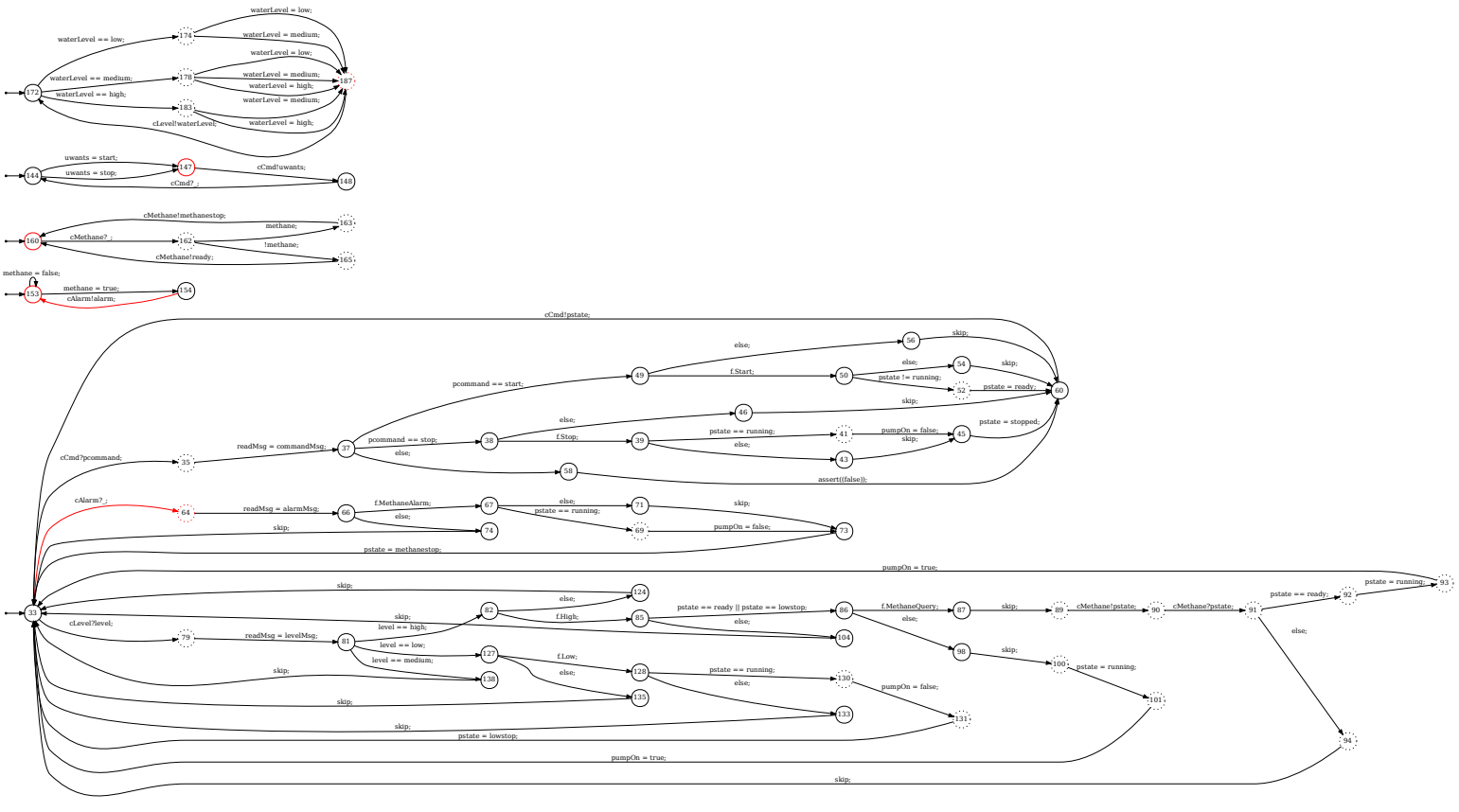
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
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skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready;
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pstate = running;
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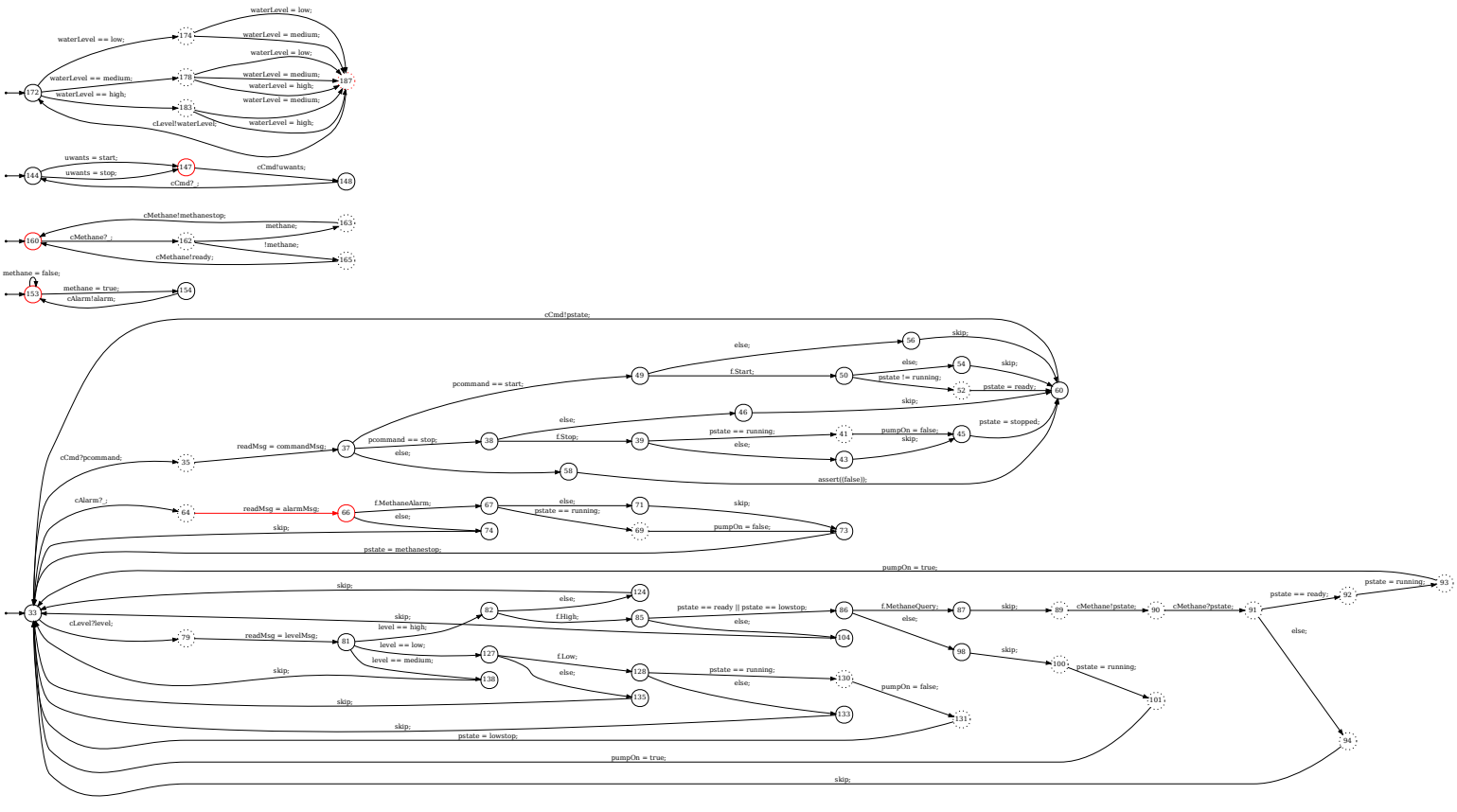
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waterLevel == low;
waterLevel = low;
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waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
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50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pumpOn = false;
skip;
f.Stop;
39
pstate == running;
else;
43
38
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
else;
104
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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skip;
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skip;
pstate = lowstop;
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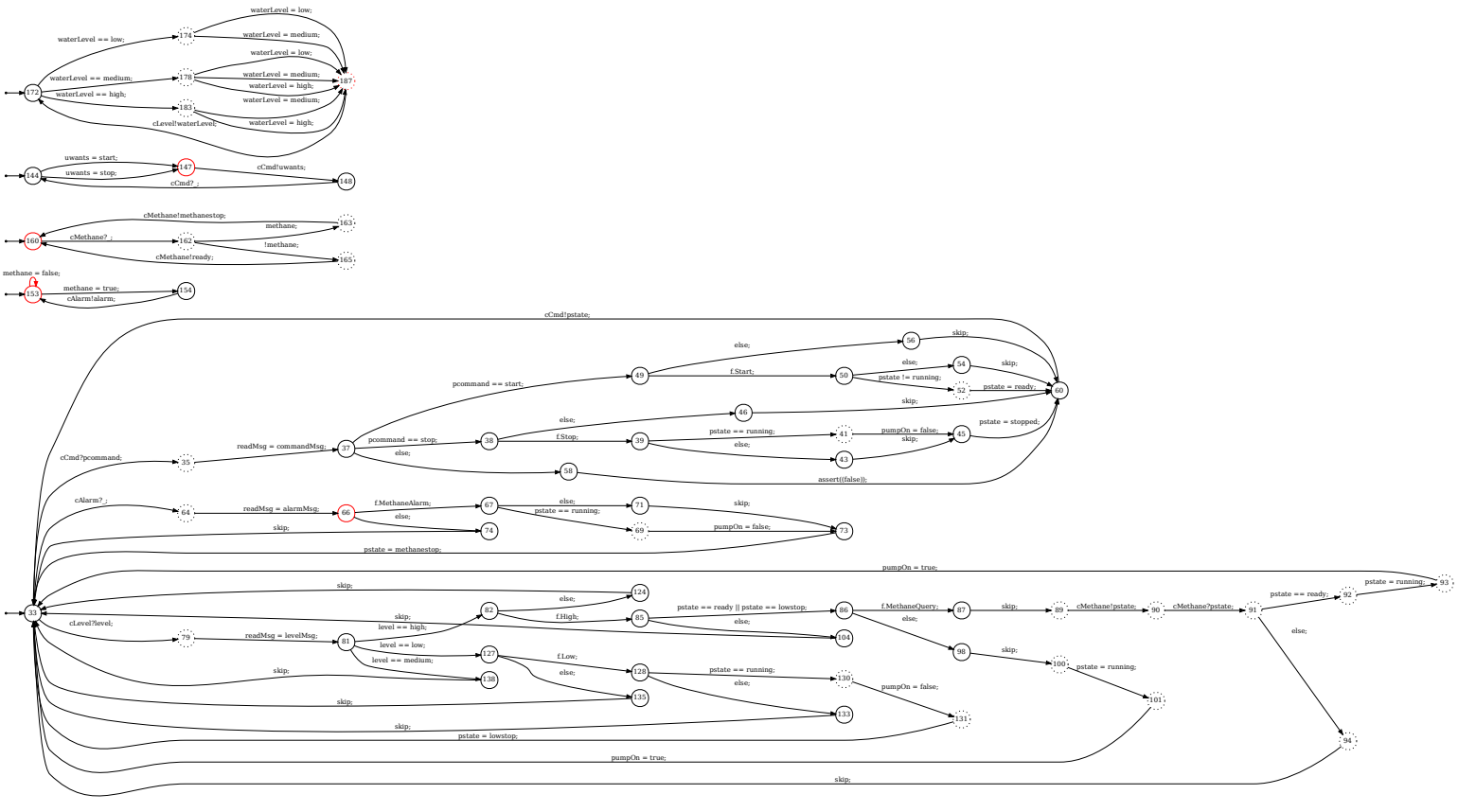
skip;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waterLevel == low;
waterLevel = low;
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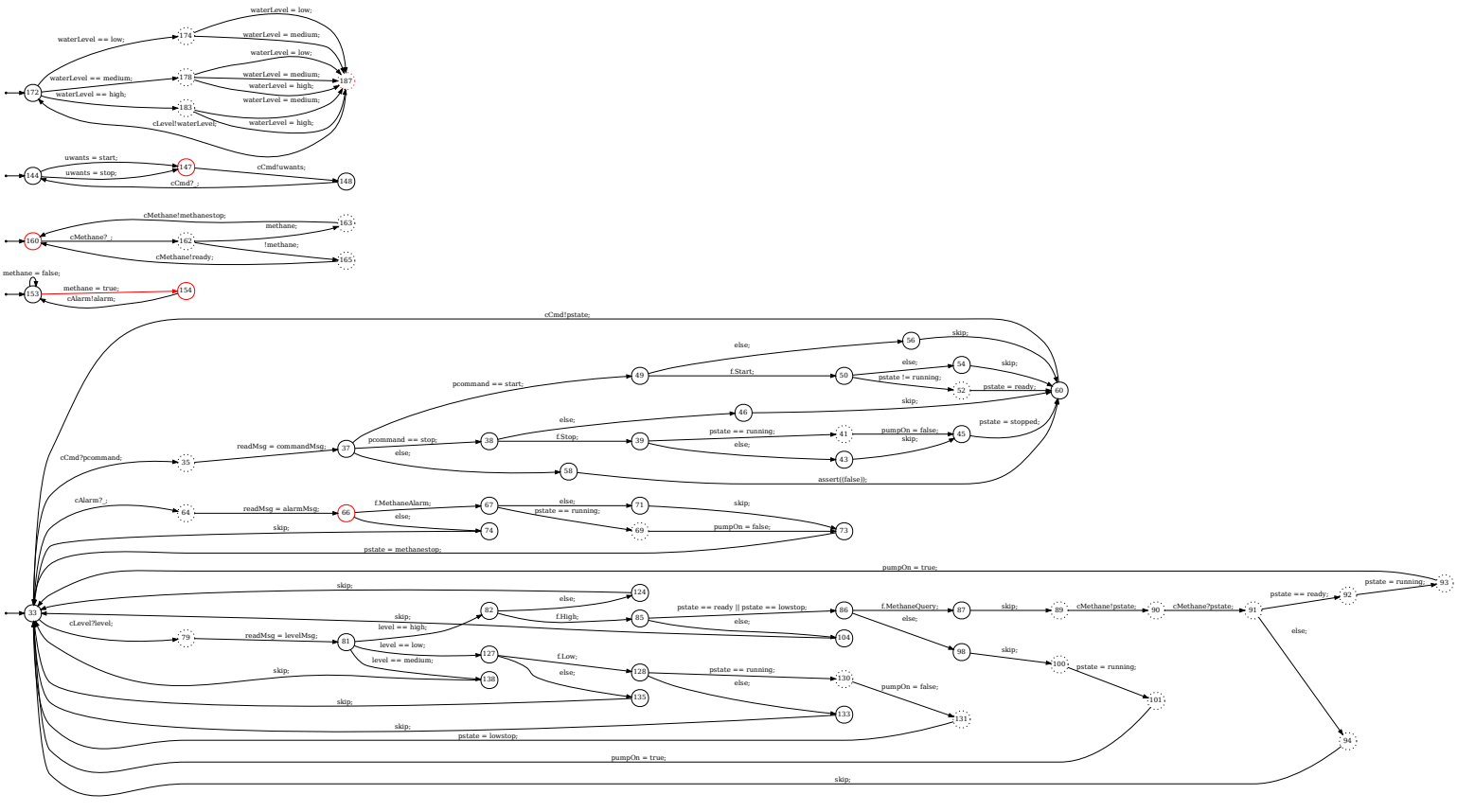
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pstate == running;
pumpOn = false;
f.Stop;
39
else;
skip;
43
38
37
35
58
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
else;
98
skip;
100
pstate = running;
101
94
138
135
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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100
101
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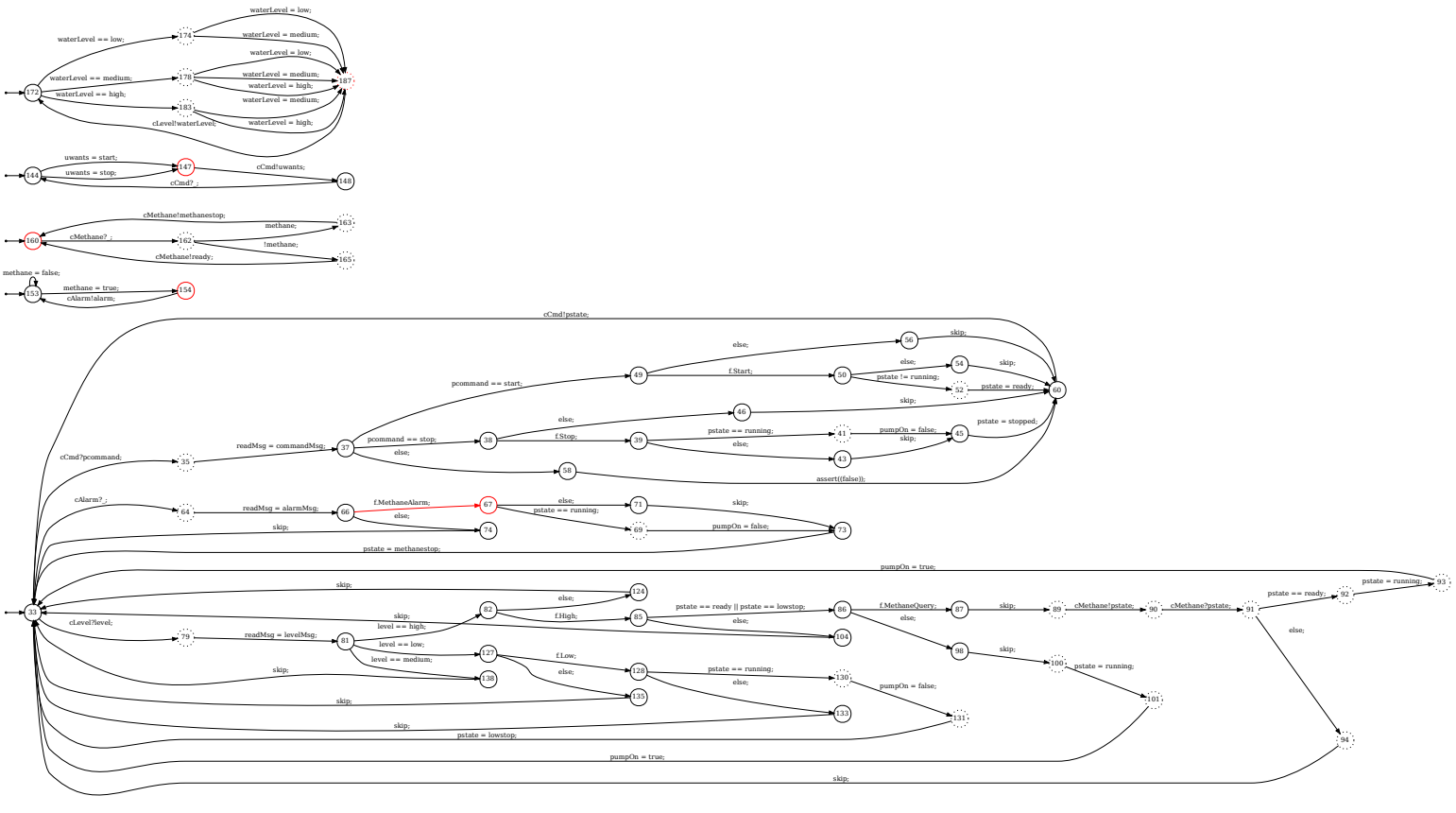
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
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pstate = running;
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pstate == running;
else;
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skip;
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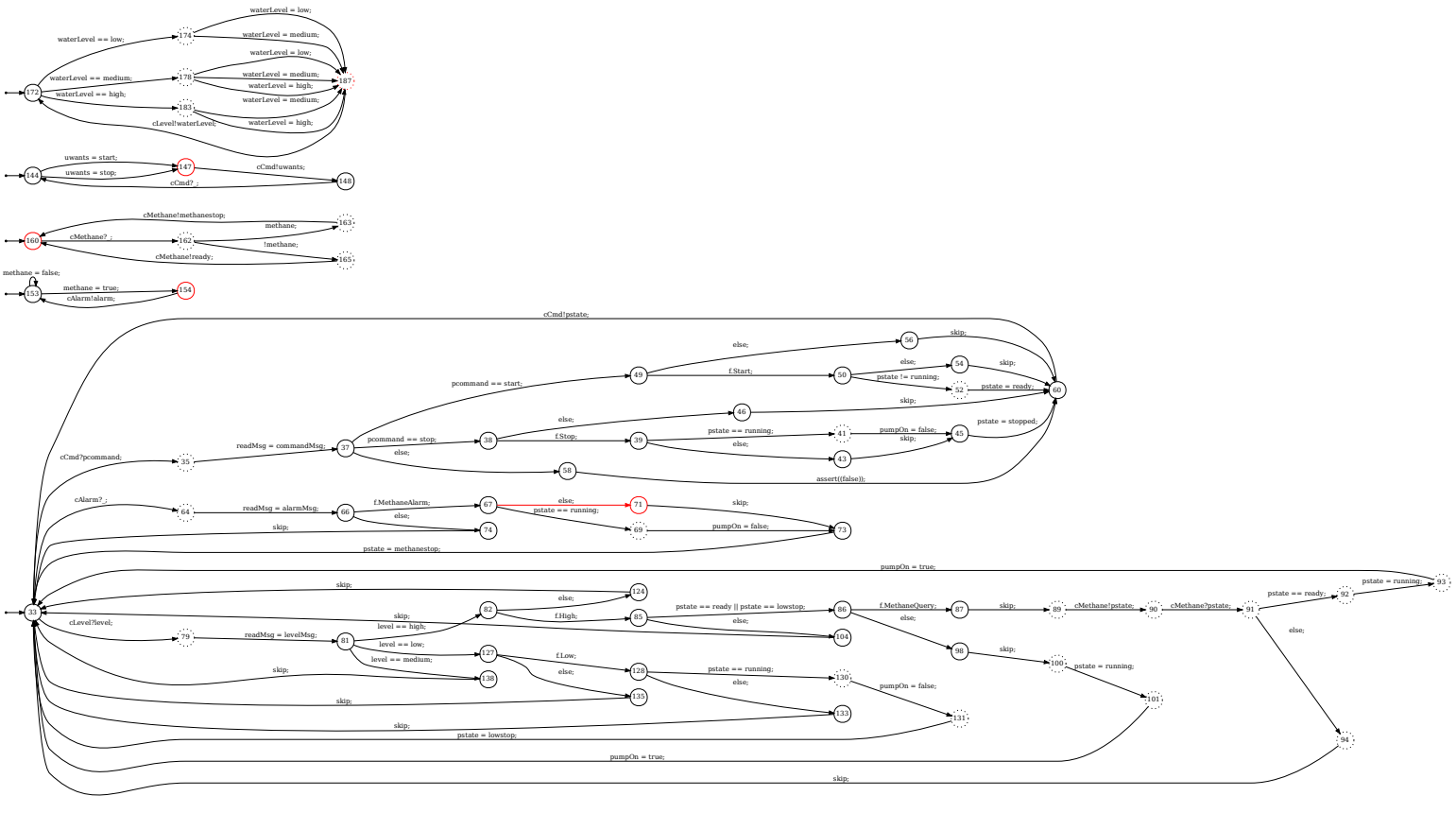
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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101
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124
127
128
130
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
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skip;
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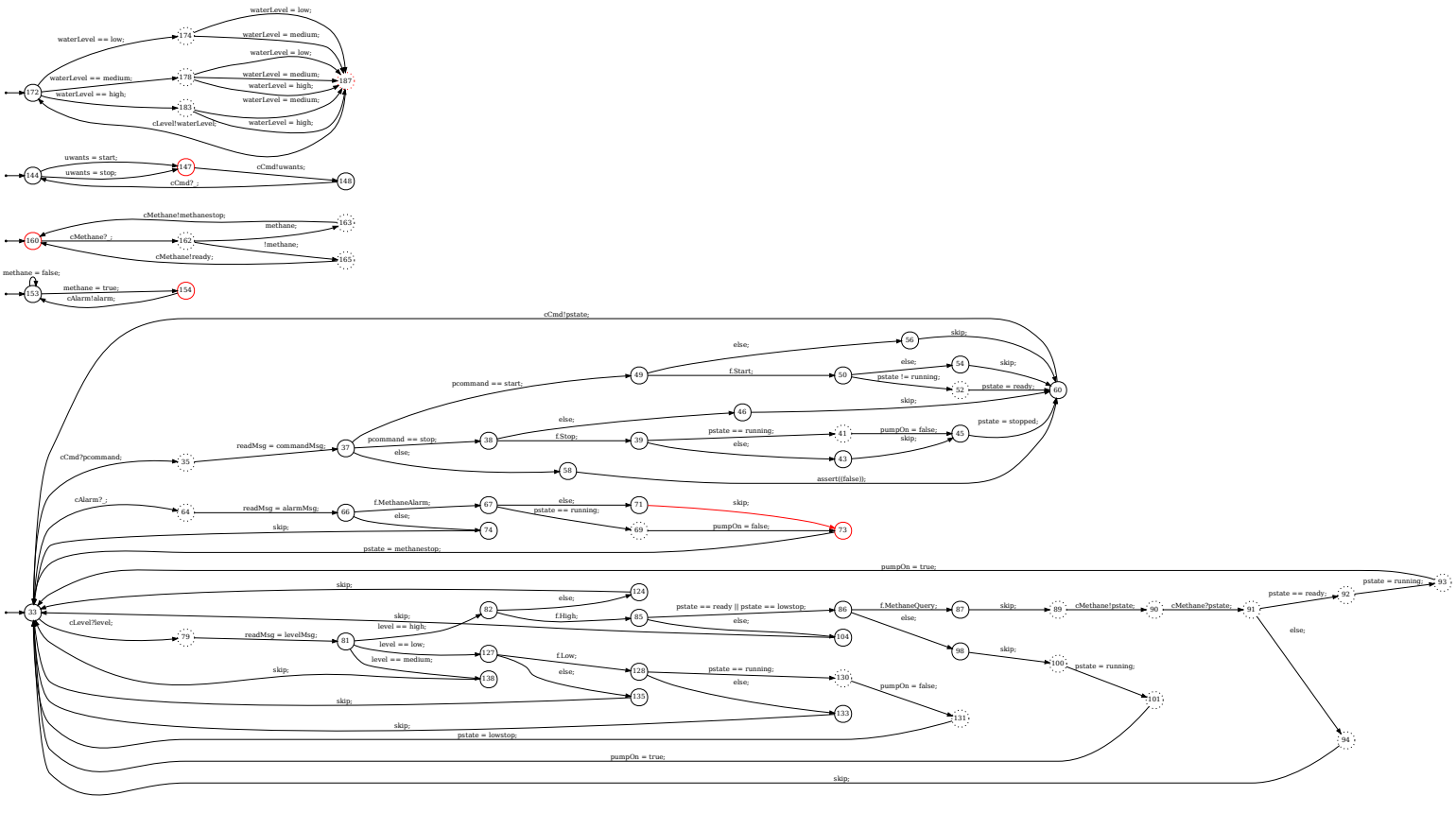
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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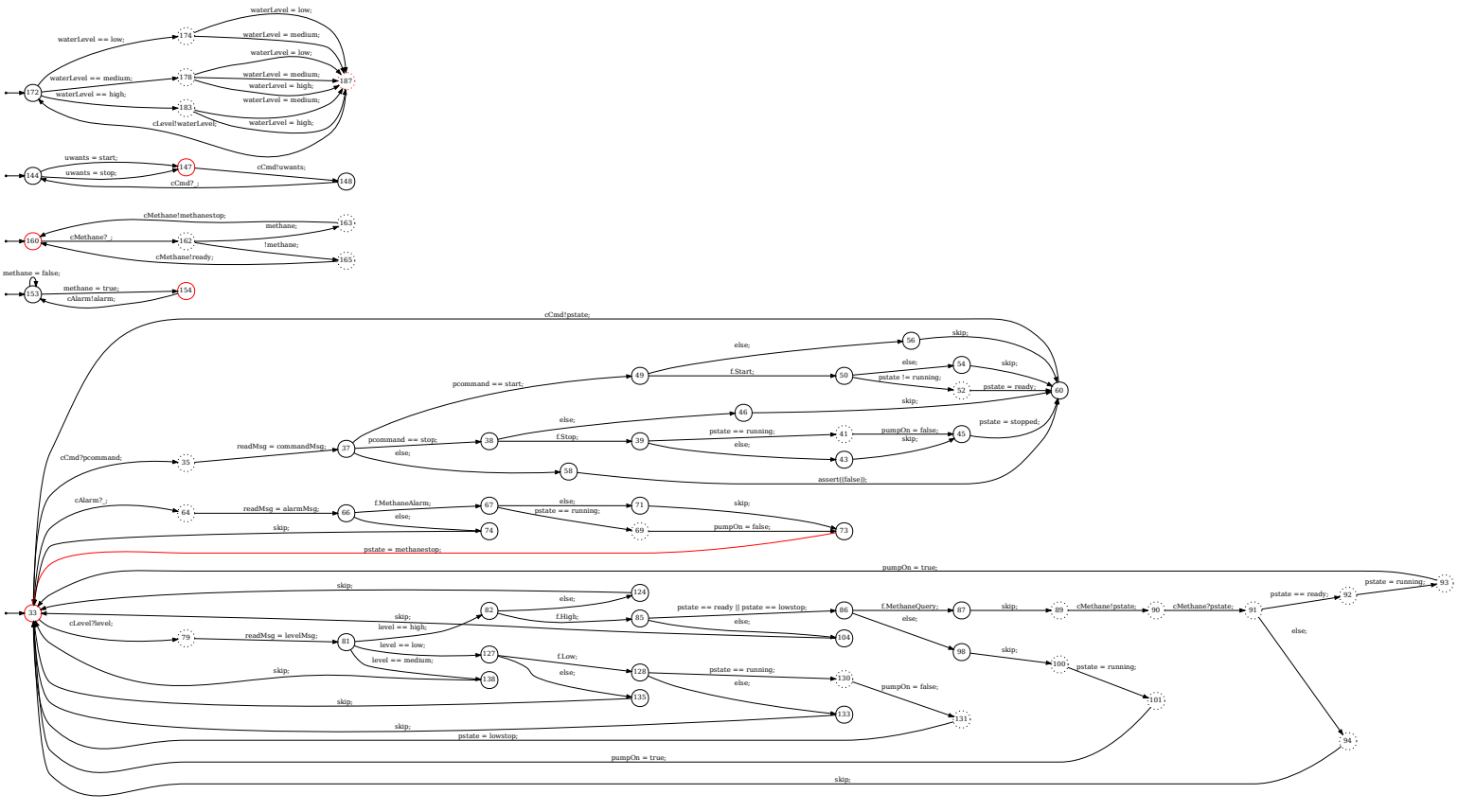
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel = high;
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172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
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else;
else;
cLevel?level;
skip;
level == high;
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79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
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skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
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pstate = lowstop;
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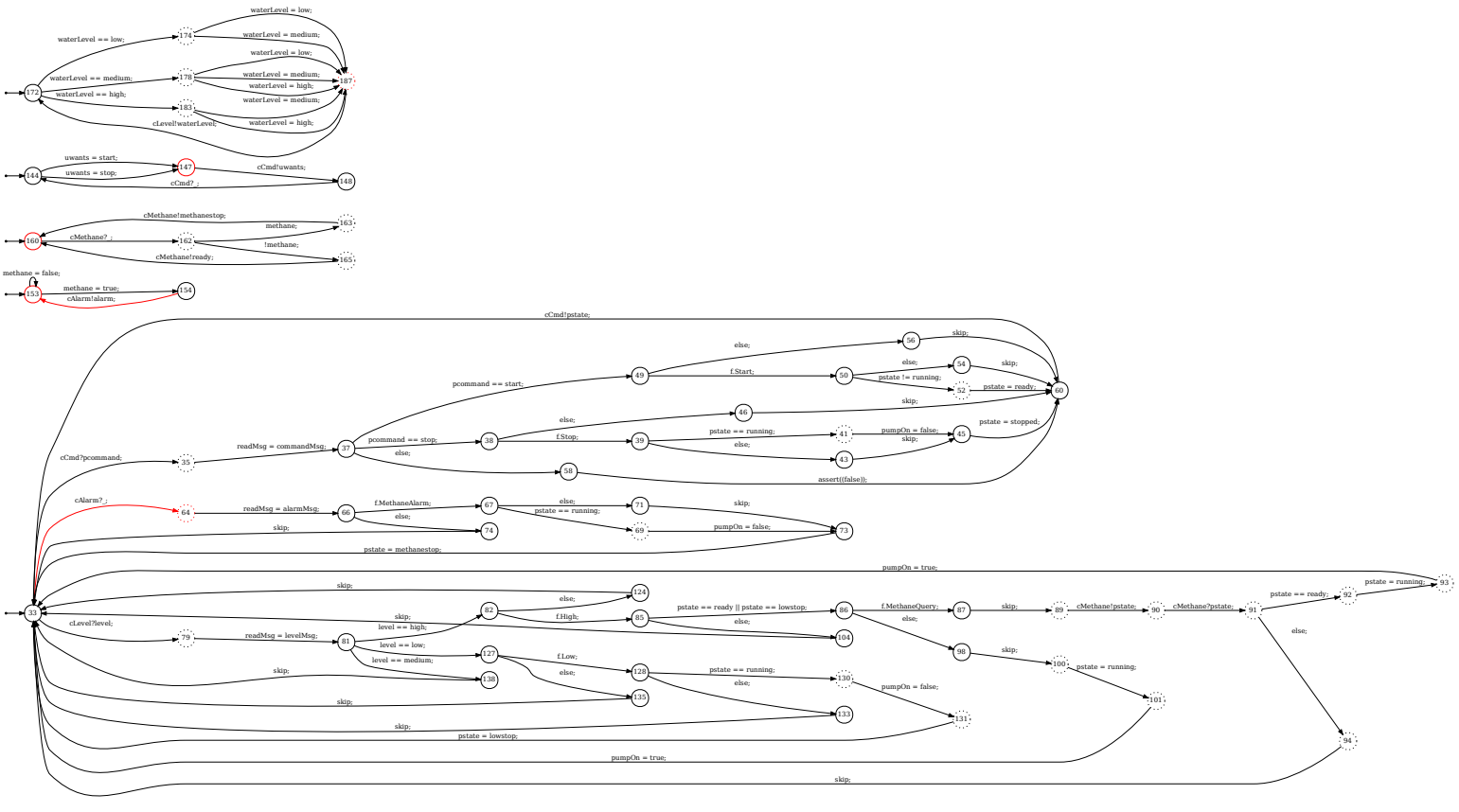
skip;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waterLevel == low;
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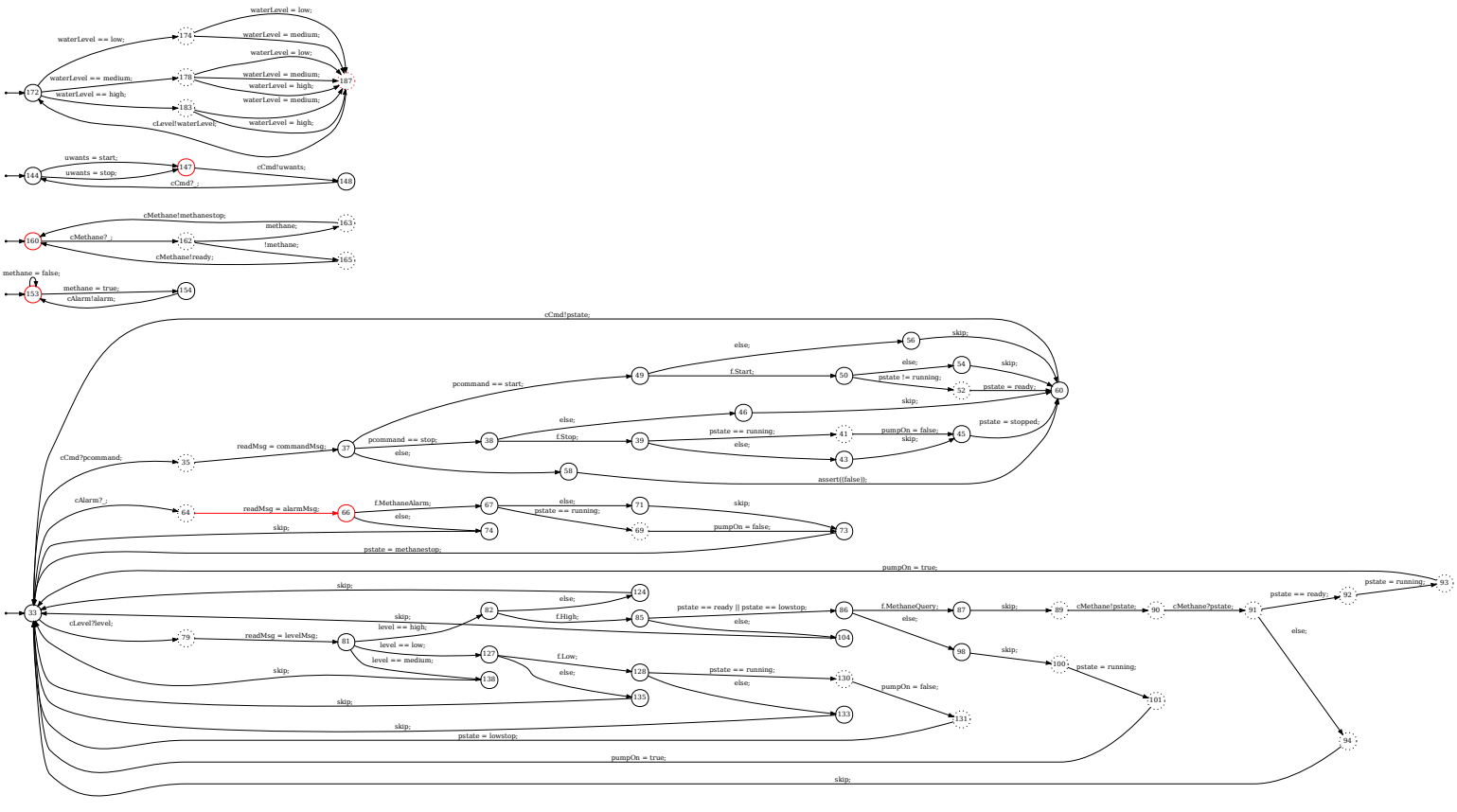
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready;
92
pstate = running;
93
94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waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pumpOn = false;
skip;
f.Stop;
39
pstate == running;
else;
43
38
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
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104
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
98
skip;
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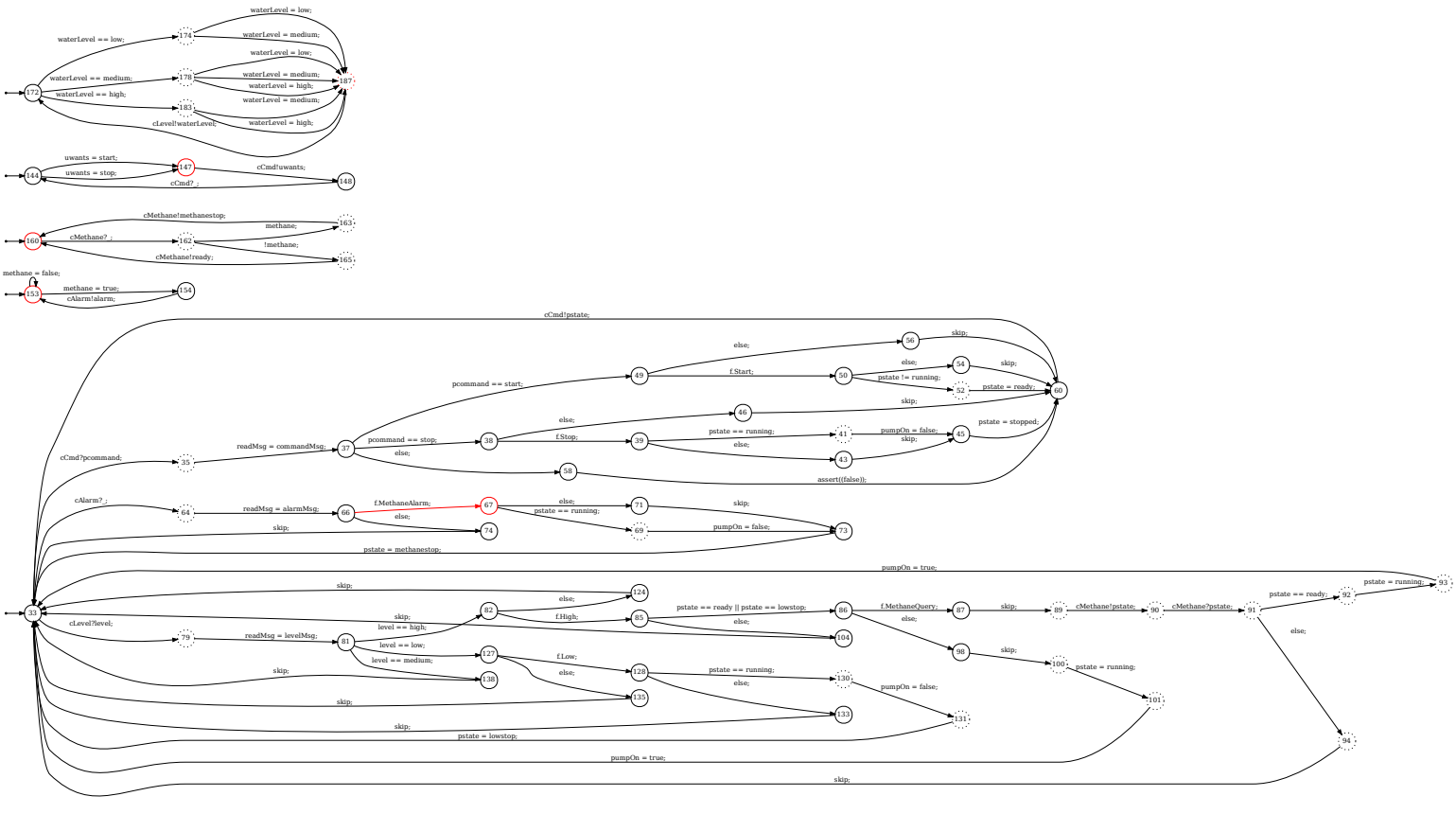
pstate = running;
101
94
138
135
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
60
skip;
46
else;
pcommand == start;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
39
f.Stop;
38
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
skip;
level == high;
f.High;
85
else;
104
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
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81
level == low;
level == medium;
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f.Low;
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pumpOn = false;
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133
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skip;
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pstate = lowstop;
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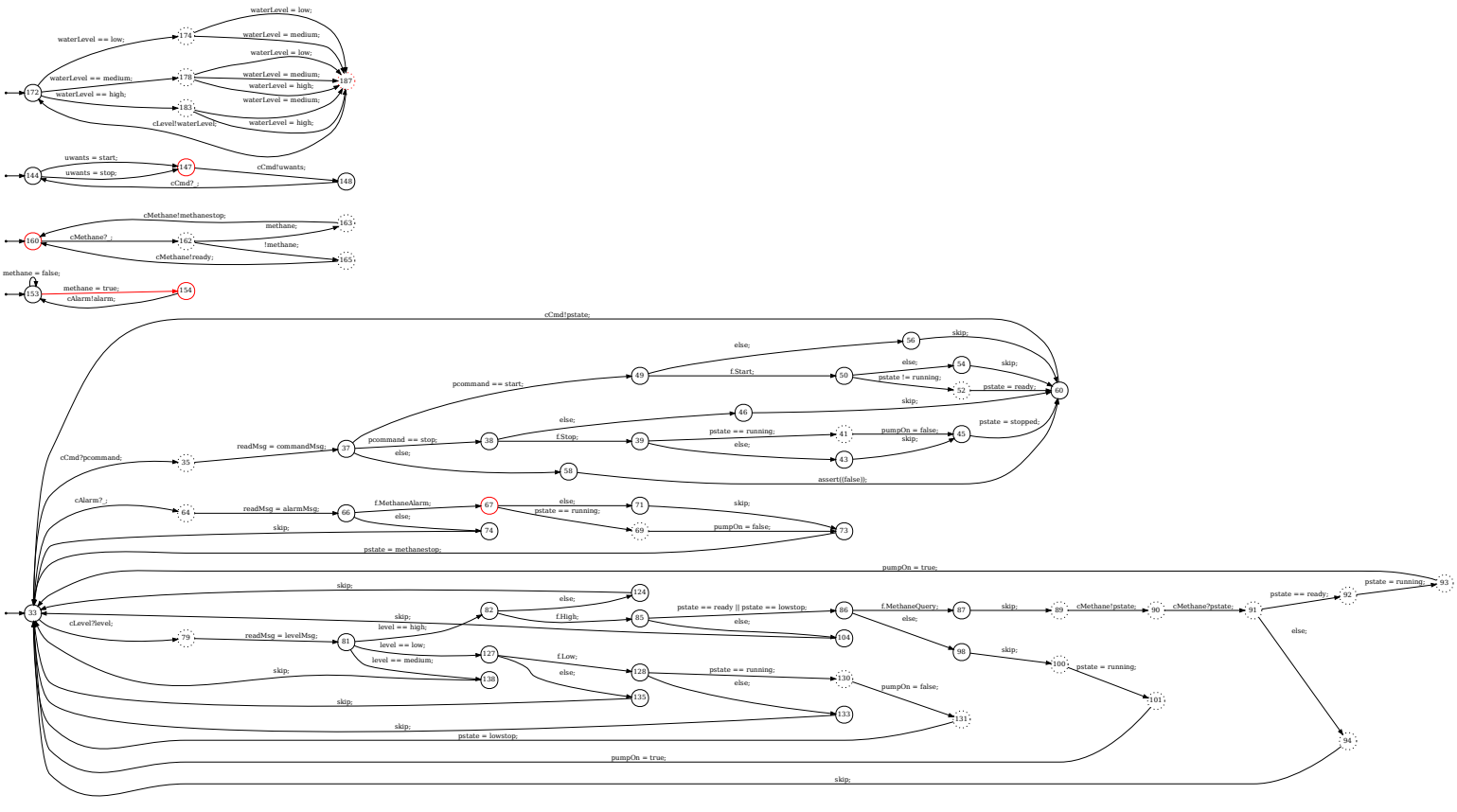
skip;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waterLevel == low;
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waterLevel = medium;
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waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
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pstate == running;
41
pumpOn = false;
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pstate = stopped;
else;
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skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
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skip;
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else;
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f.High;
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level == high;
cLevel?level;
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readMsg = levelMsg;
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level == low;
level == medium;
127
f.Low;
else;
128
else;
138
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skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
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else;
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skip;
100
pstate = running;
101
skip;
89
cMethane!pstate;
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cMethane?pstate;
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else;
pstate == ready;
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pstate = running;
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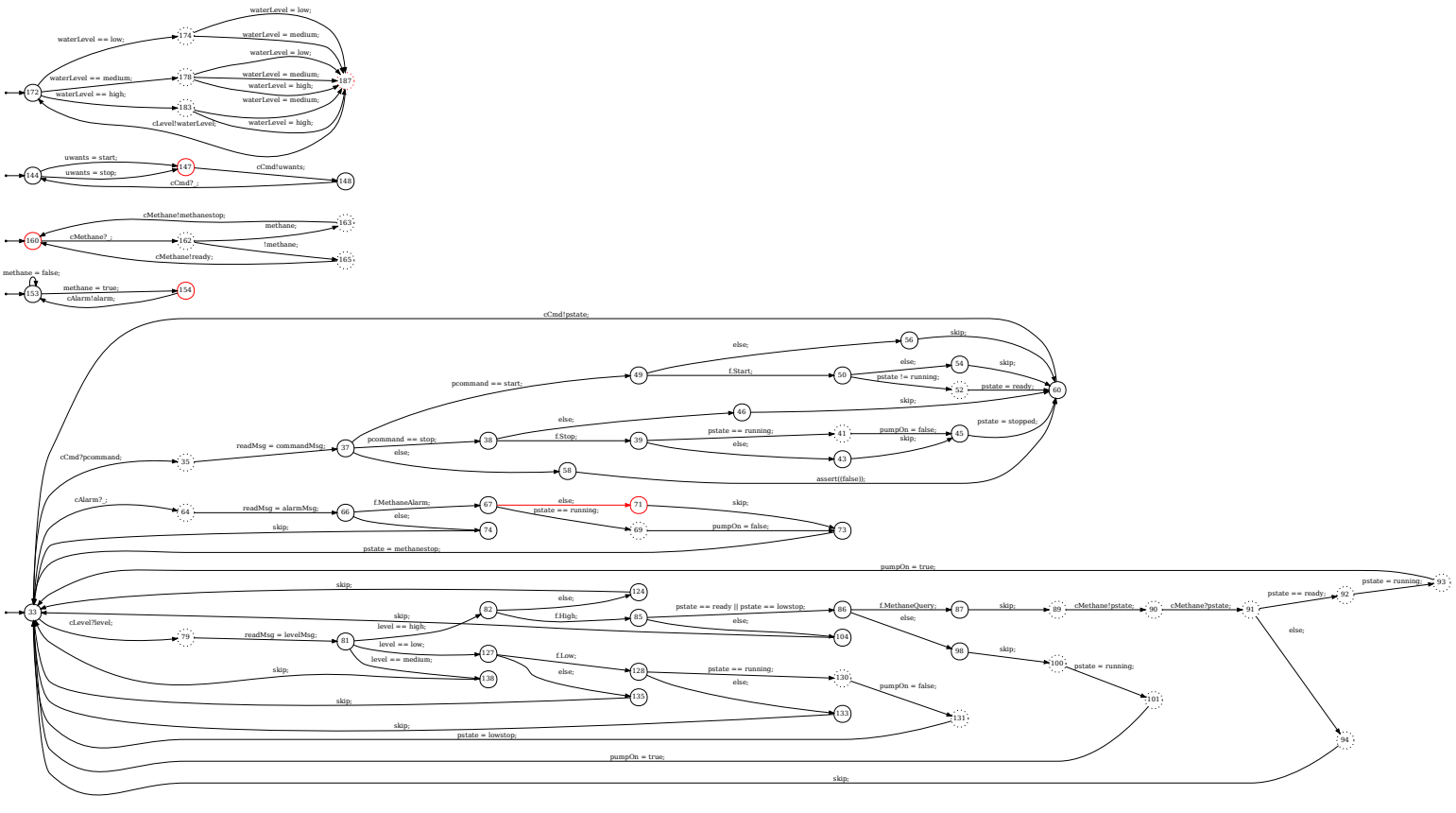
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
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163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
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154
methane = false;
methane = true;
cAlarm!alarm;
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138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
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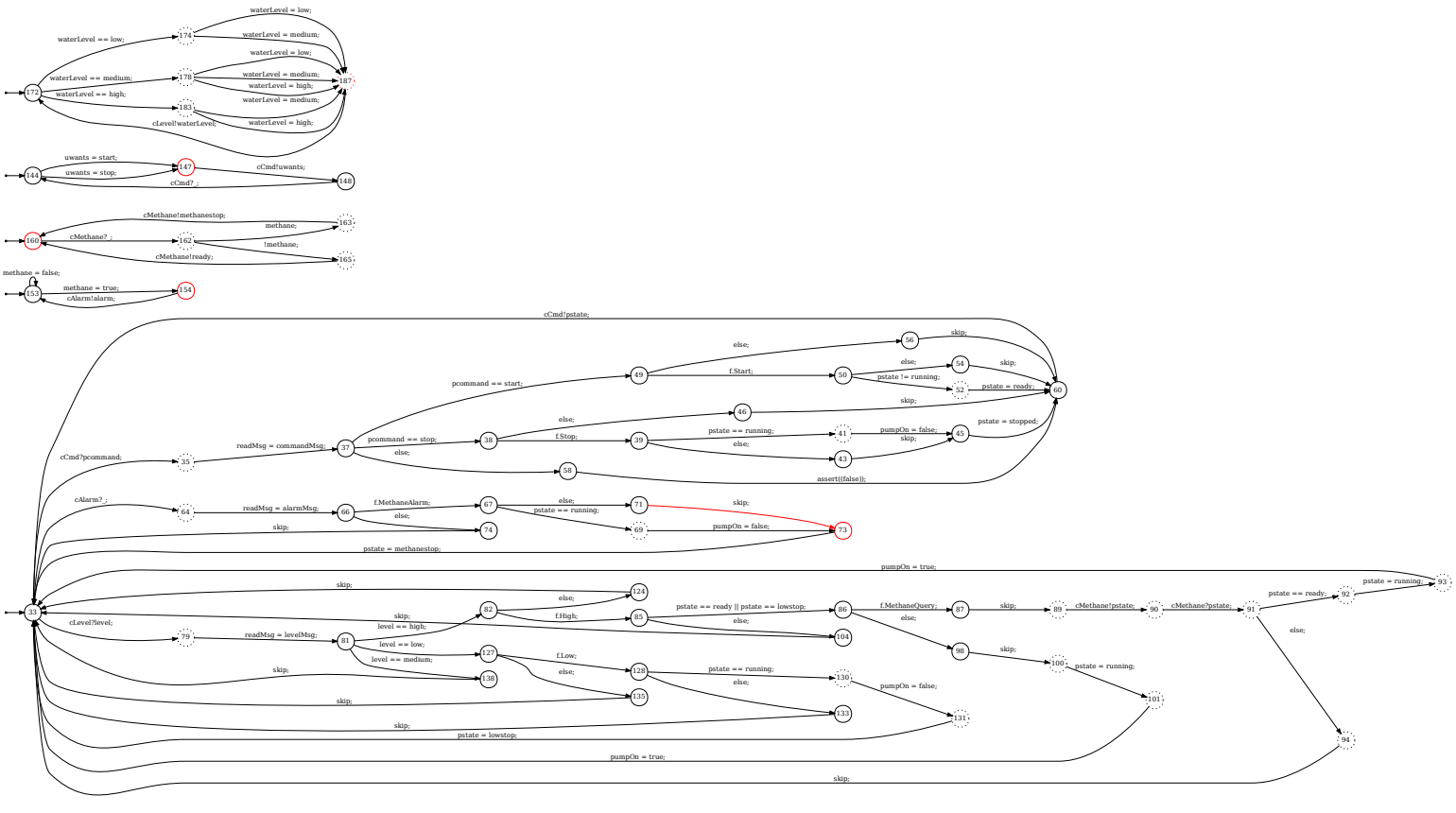
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
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54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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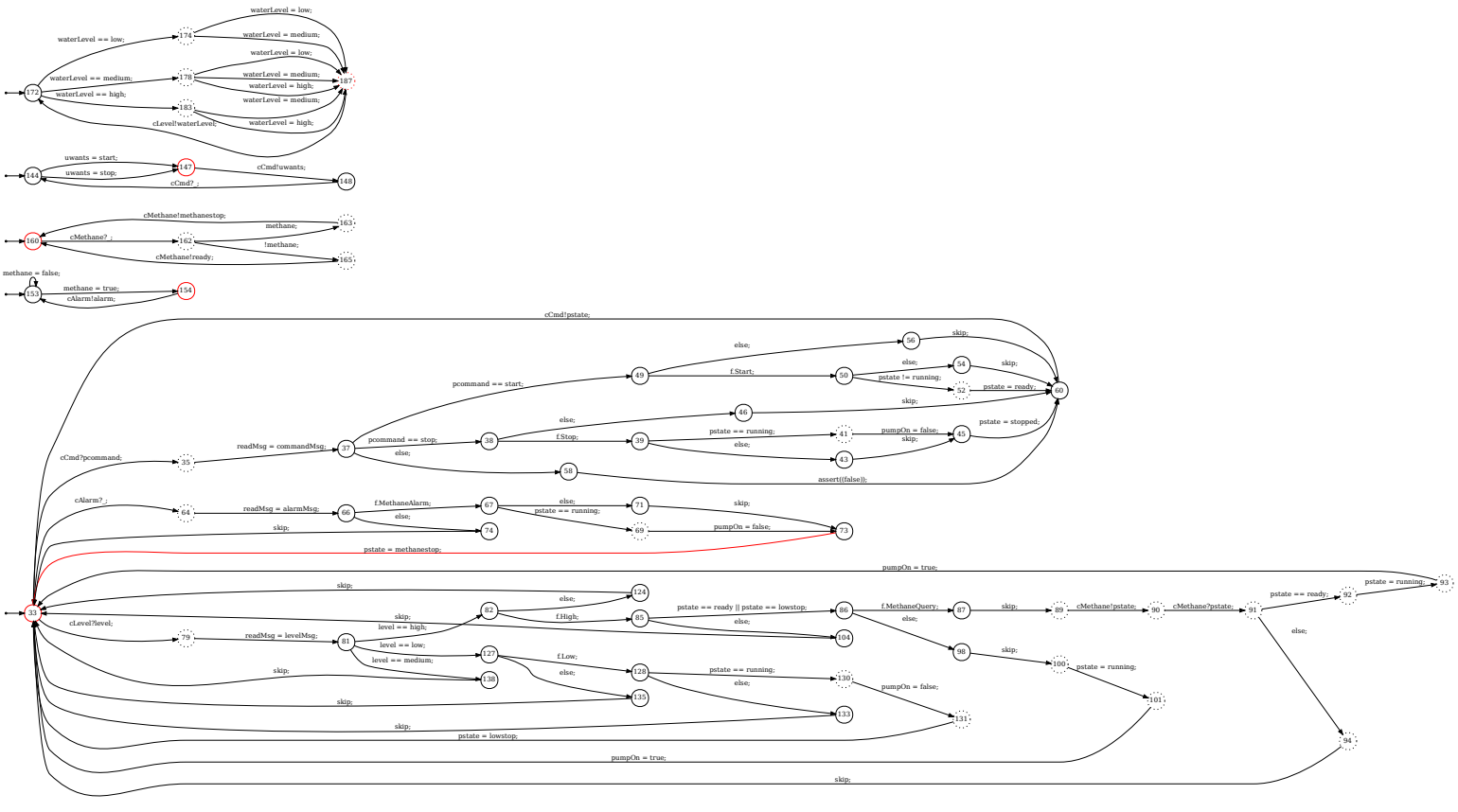
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel = medium;
waterLevel = low;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
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else;
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skip;
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skip;
pstate = lowstop;
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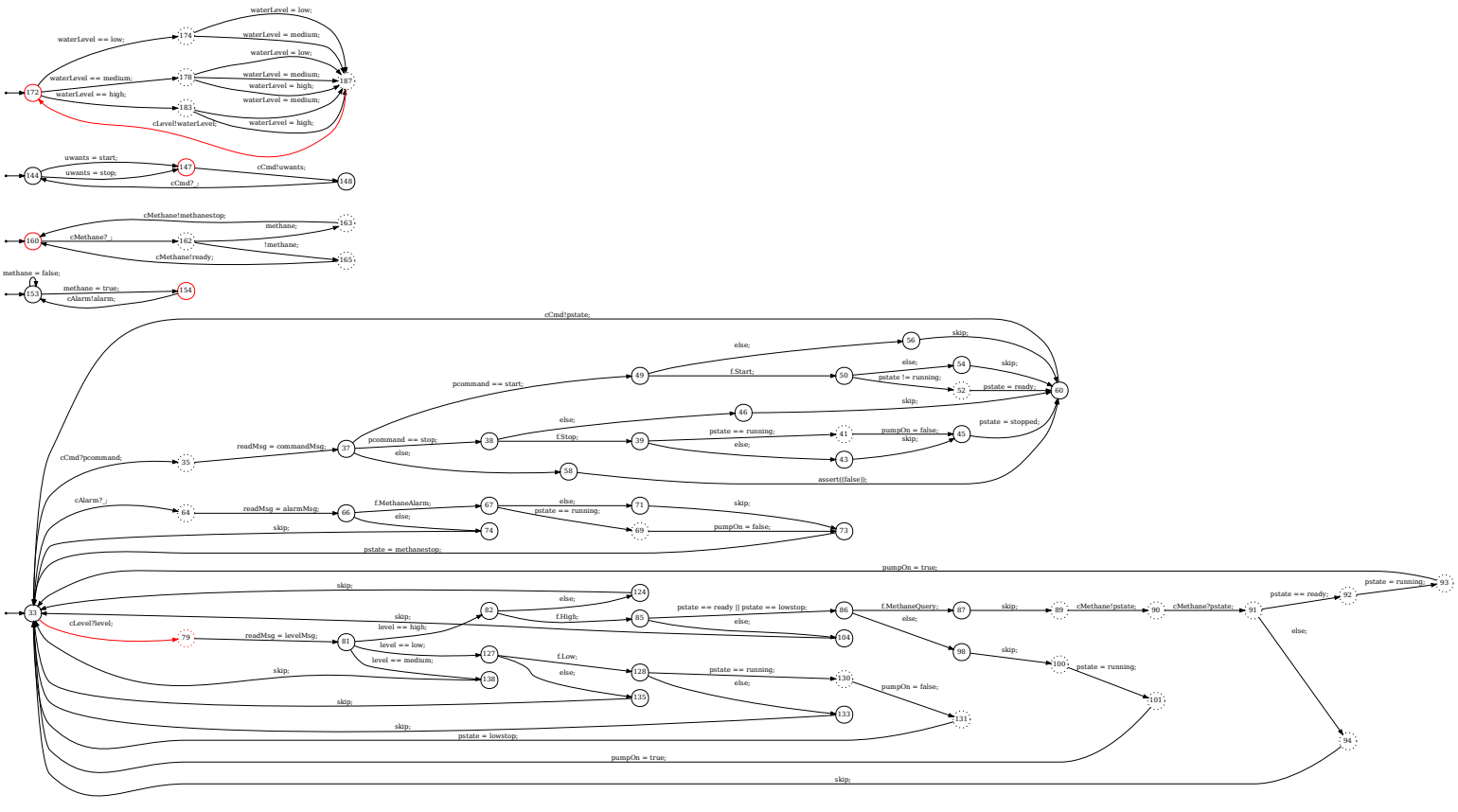
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
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147
148
uwants = start;
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cCmd!uwants;
cCmd? ;
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162
163
165
cMethane!methanestop;
cMethane? ;
methane;
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153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
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pstate == running;
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assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
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f.Low;
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138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
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cMethane!pstate;
90
cMethane?pstate;
91
else;
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skip;
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pstate = running;
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pumpOn = false;
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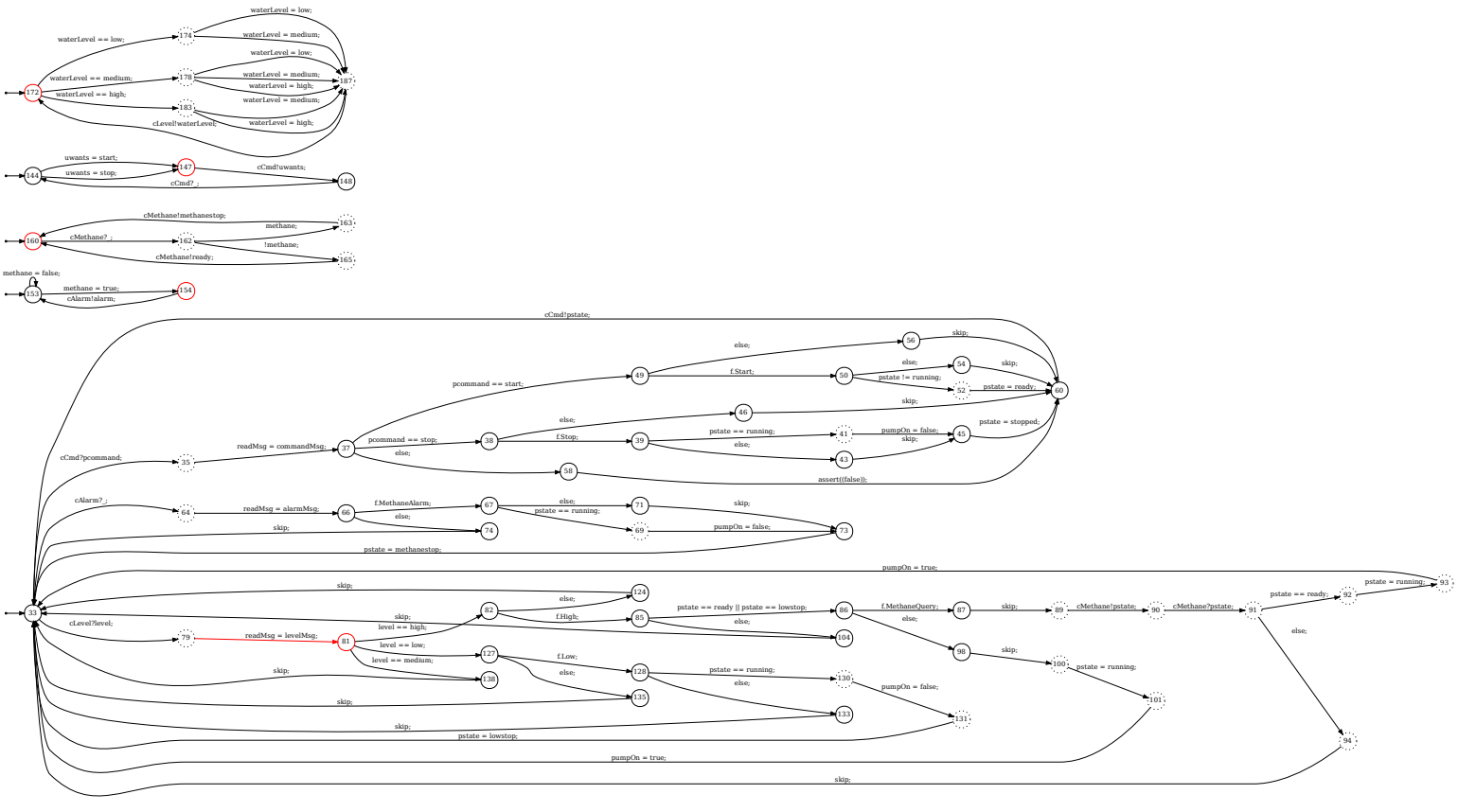
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waterLevel == low;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
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waterLevel = medium;
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cCmd? ;
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else;
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f.Stop;
39
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assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
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cAlarm? ;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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pstate == running;
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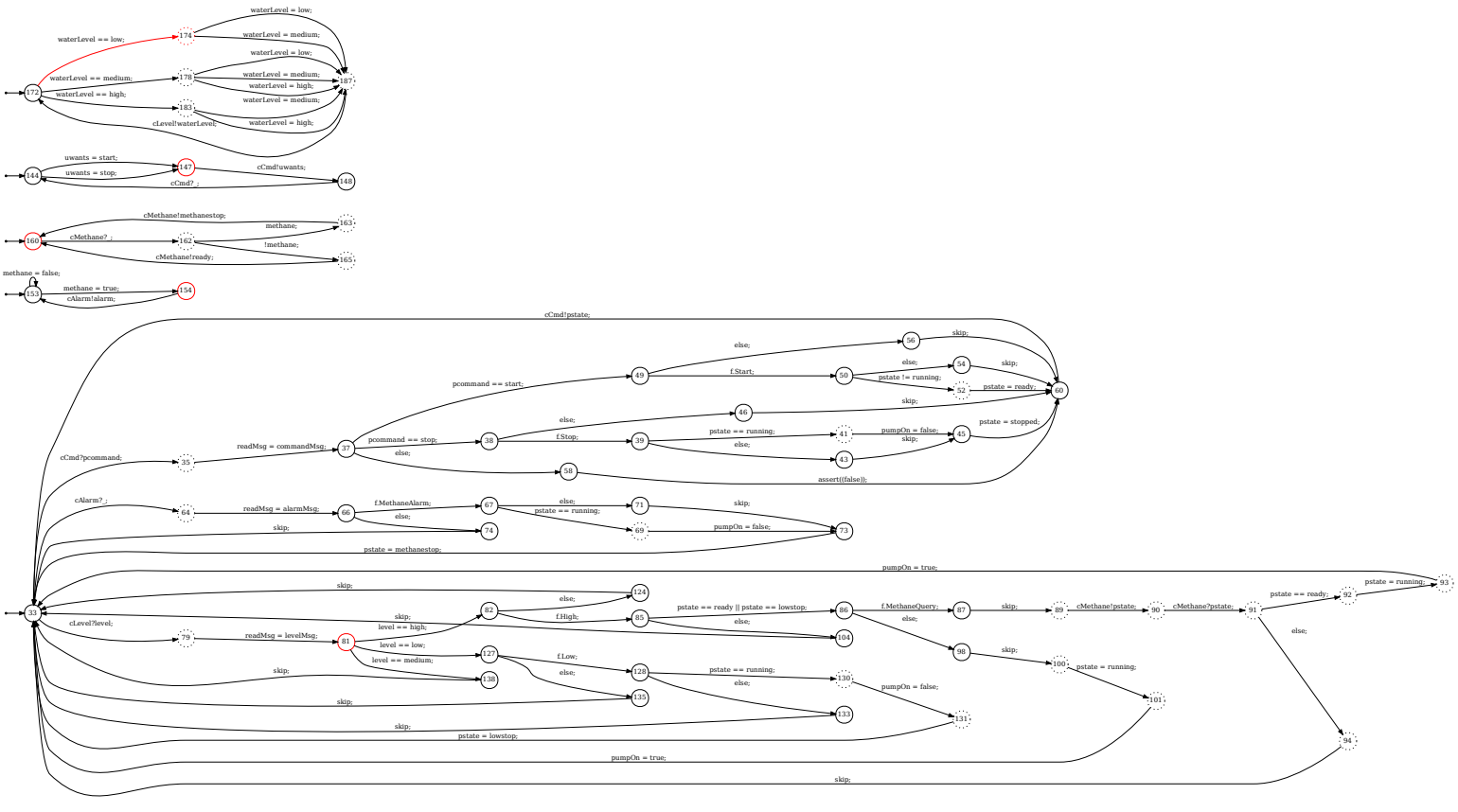
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waterLevel == low;
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cCmd!uwants;
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165
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cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
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methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
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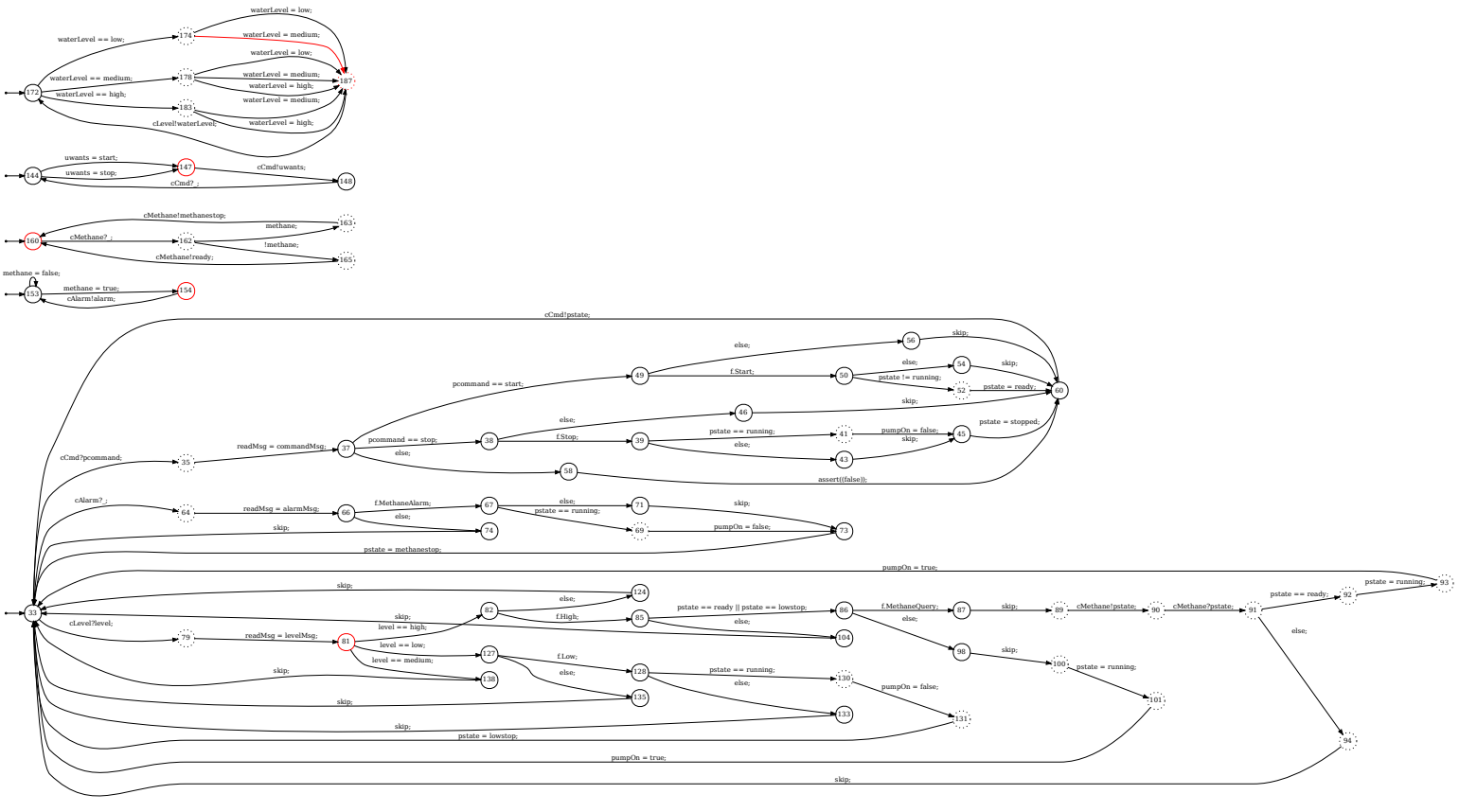
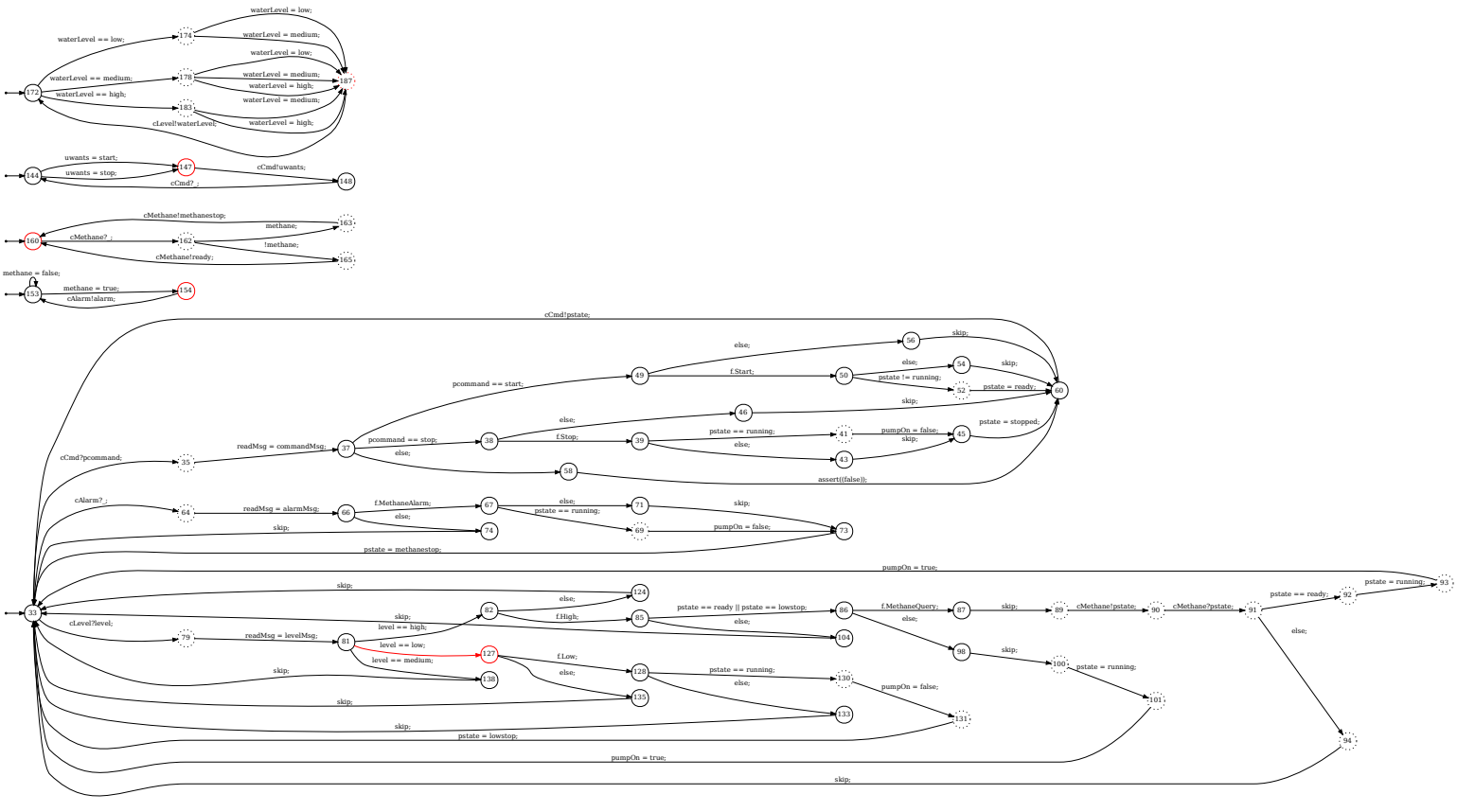
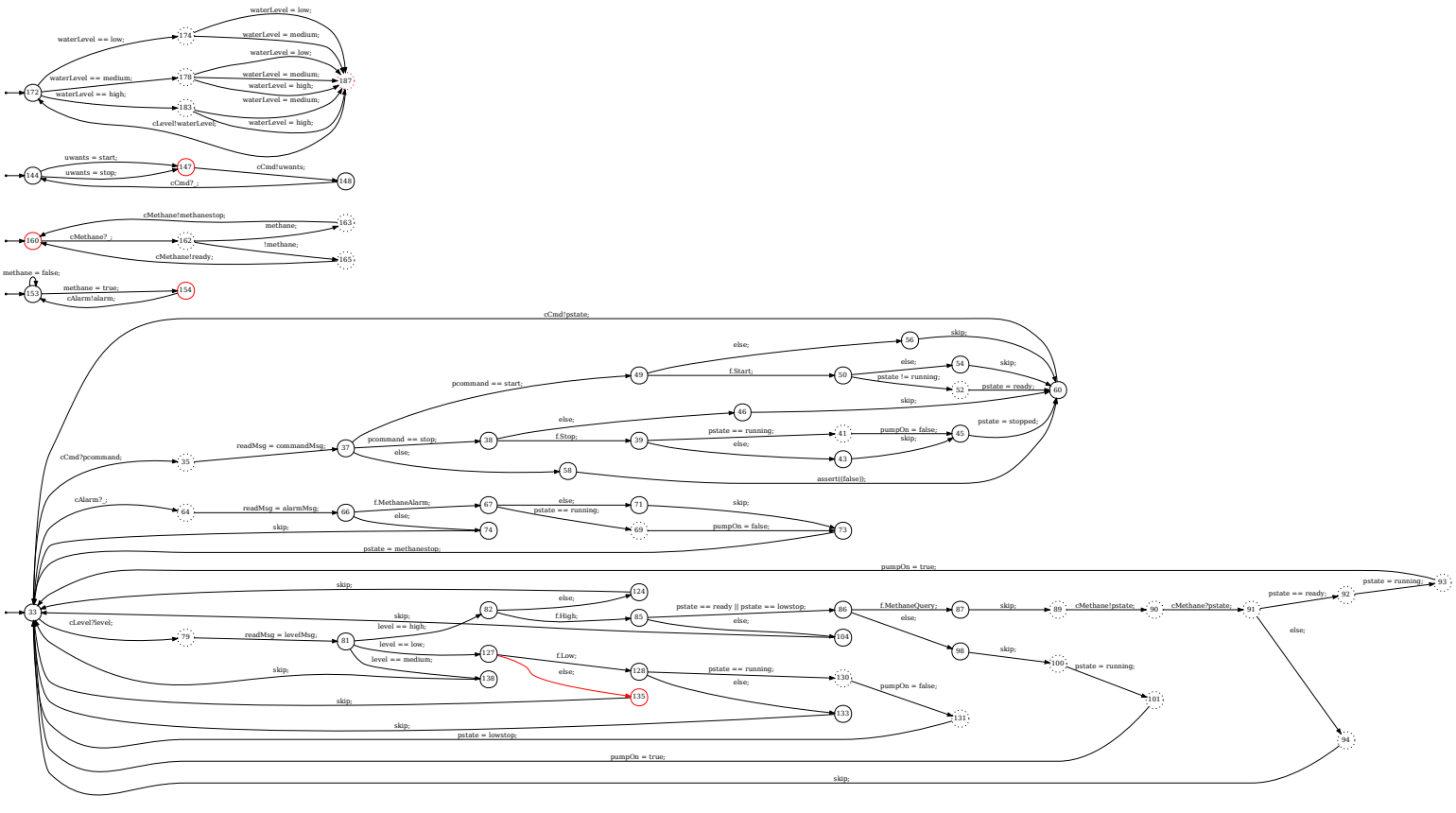
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate == ready;
pstate = lowstop;


172
174
176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
33
79
81
82
85
86
87
89
90
91
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
skip;
else;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pumpOn = true;


waterLevel = low;
waterLevel == low;
waterLevel = medium;
waterLevel = low;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
cMethane!methanestop;
methane;
cMethane? ;
!methane;
cMethane!ready;
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
skip;
pcommand == start;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
else;
pstate = stopped;
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
skip;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
else;
skip;
pstate = running;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
pstate == running;
else;
130
pumpOn = false;
131
133
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skip;
100
pstate = running;
101
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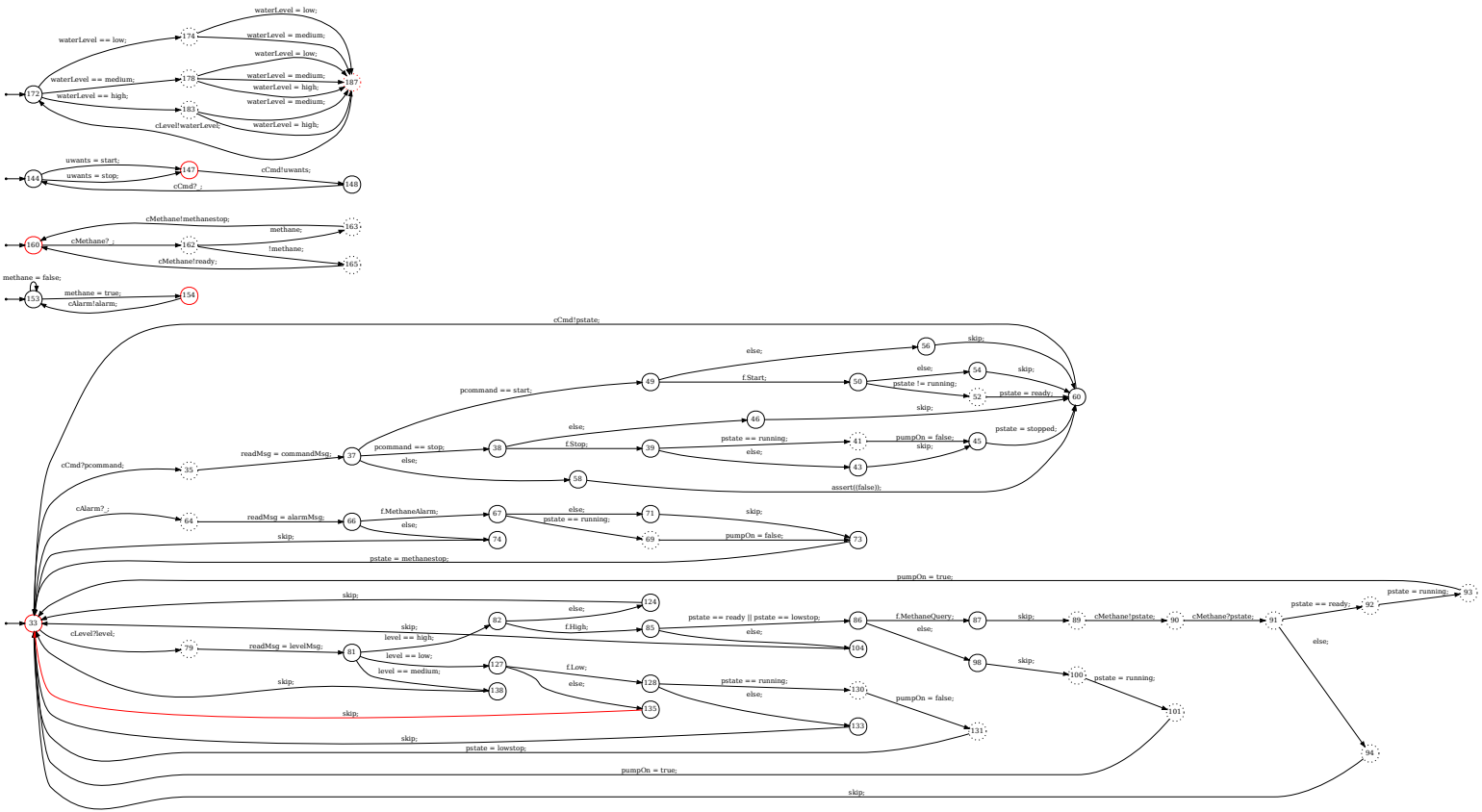
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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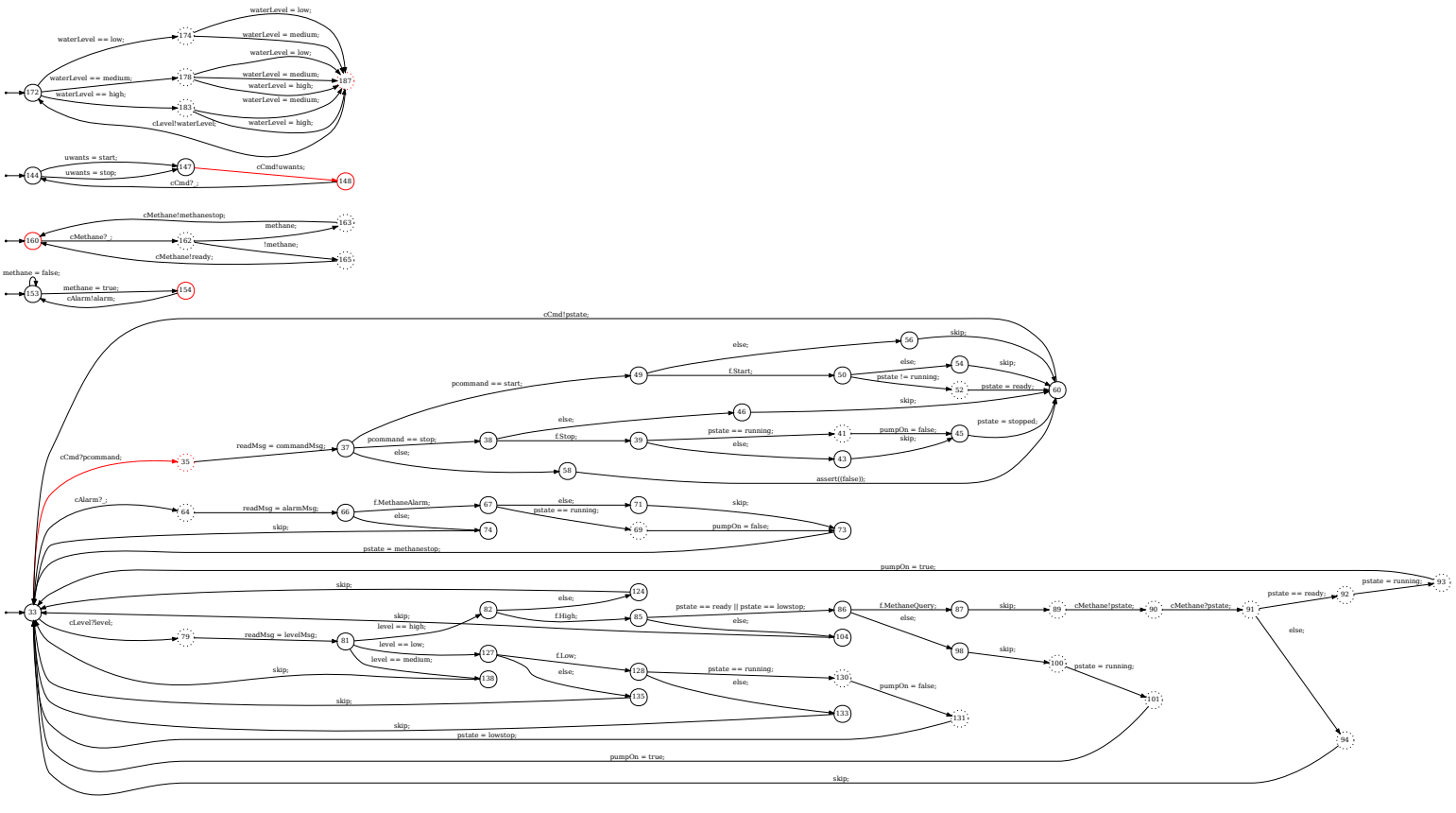
174
176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
38
f.Stop;
39
else;
43
else;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
pstate = running;
130
else;
pumpOn = false;
133
131
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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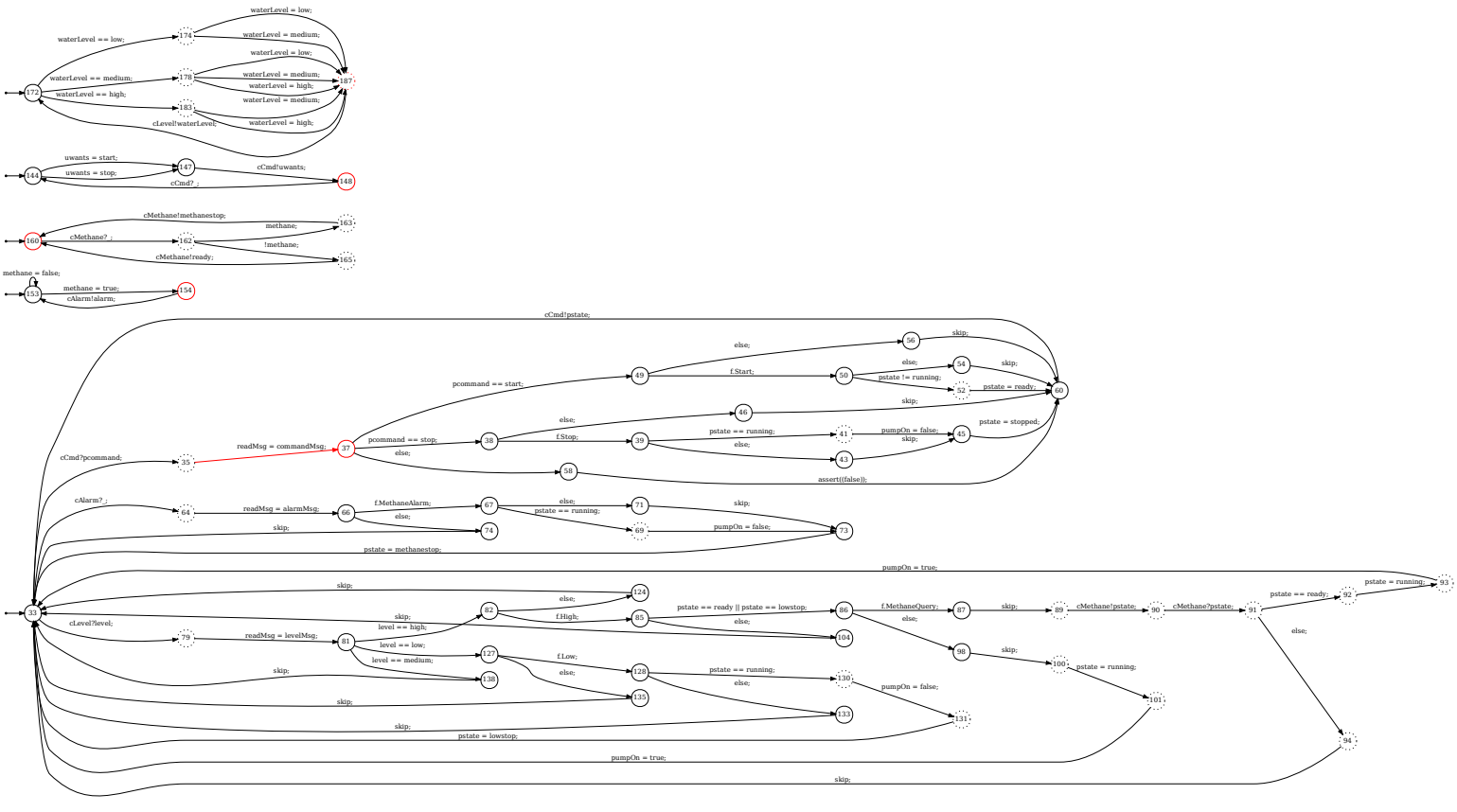
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
pumpOn = false;
131
pstate == ready;
92
pstate = running;
93
94
pumpOn = true;
skip;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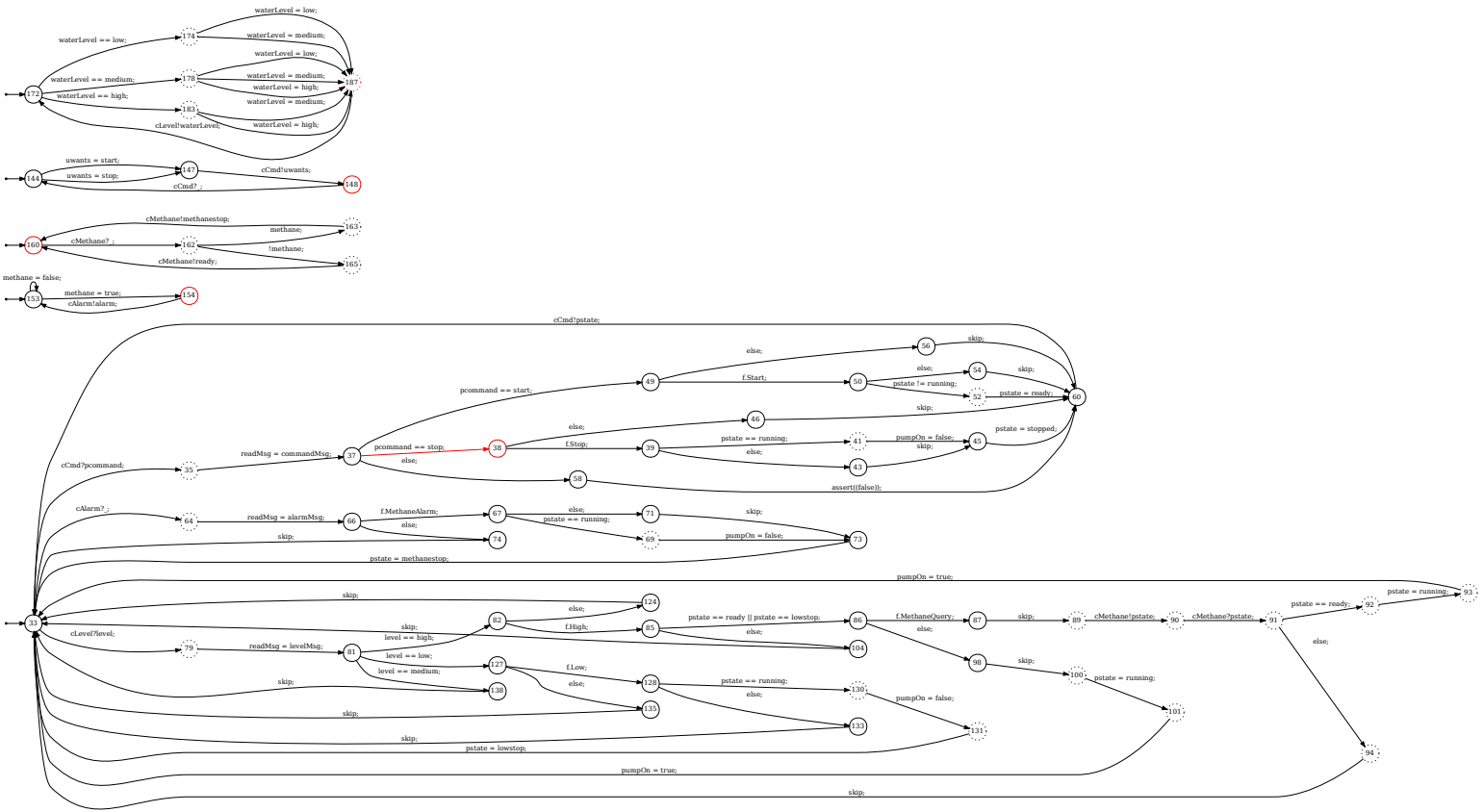
174
176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
else;
43
else;
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
pumpOn = false;
133
131
pstate = lowstop;
pumpOn = true;
skip;
92
pstate = ready;
93
94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waterLevel == low;
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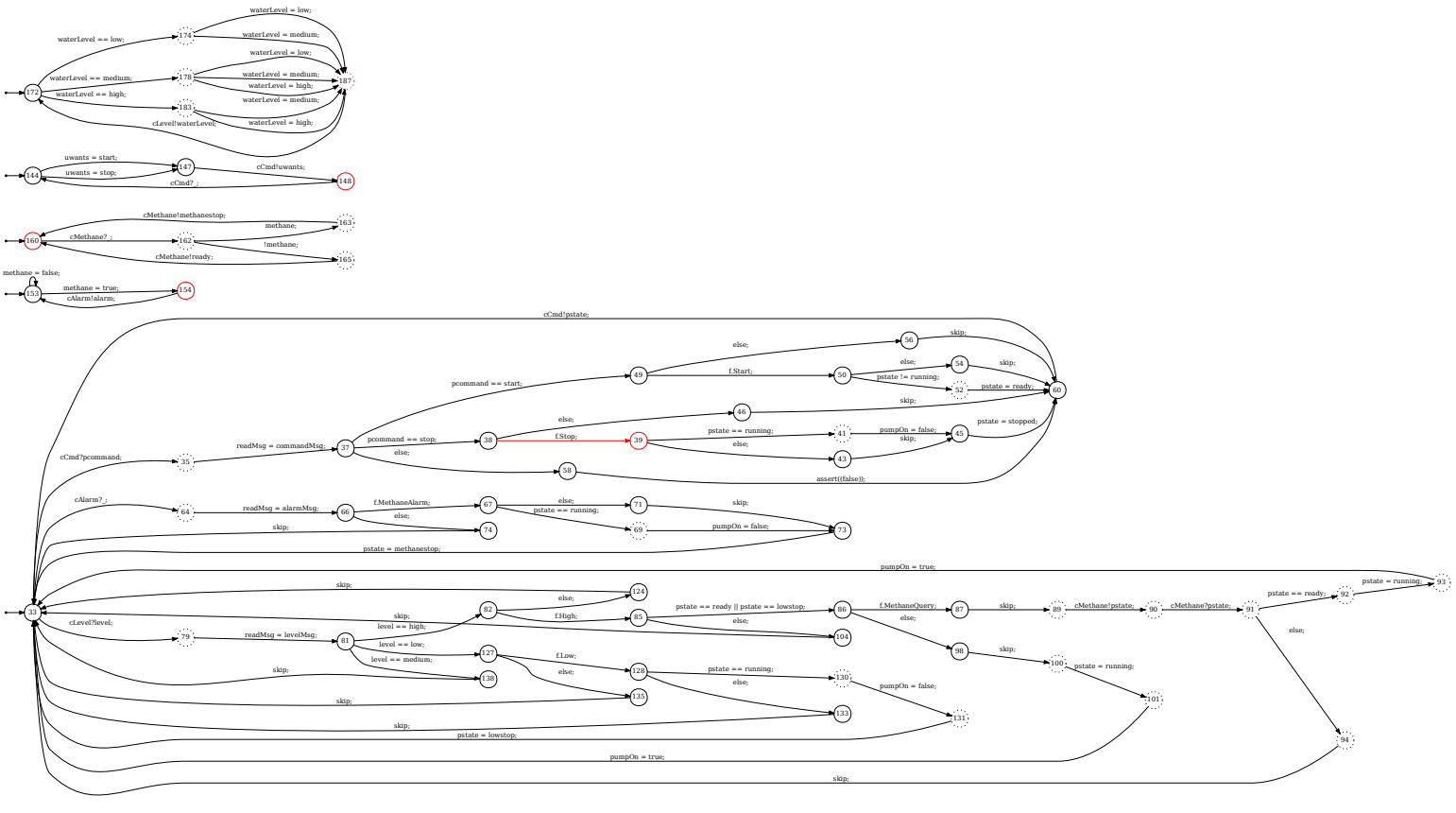
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pstate == running;
else;
130
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
131
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
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pstate = running;
93
else;
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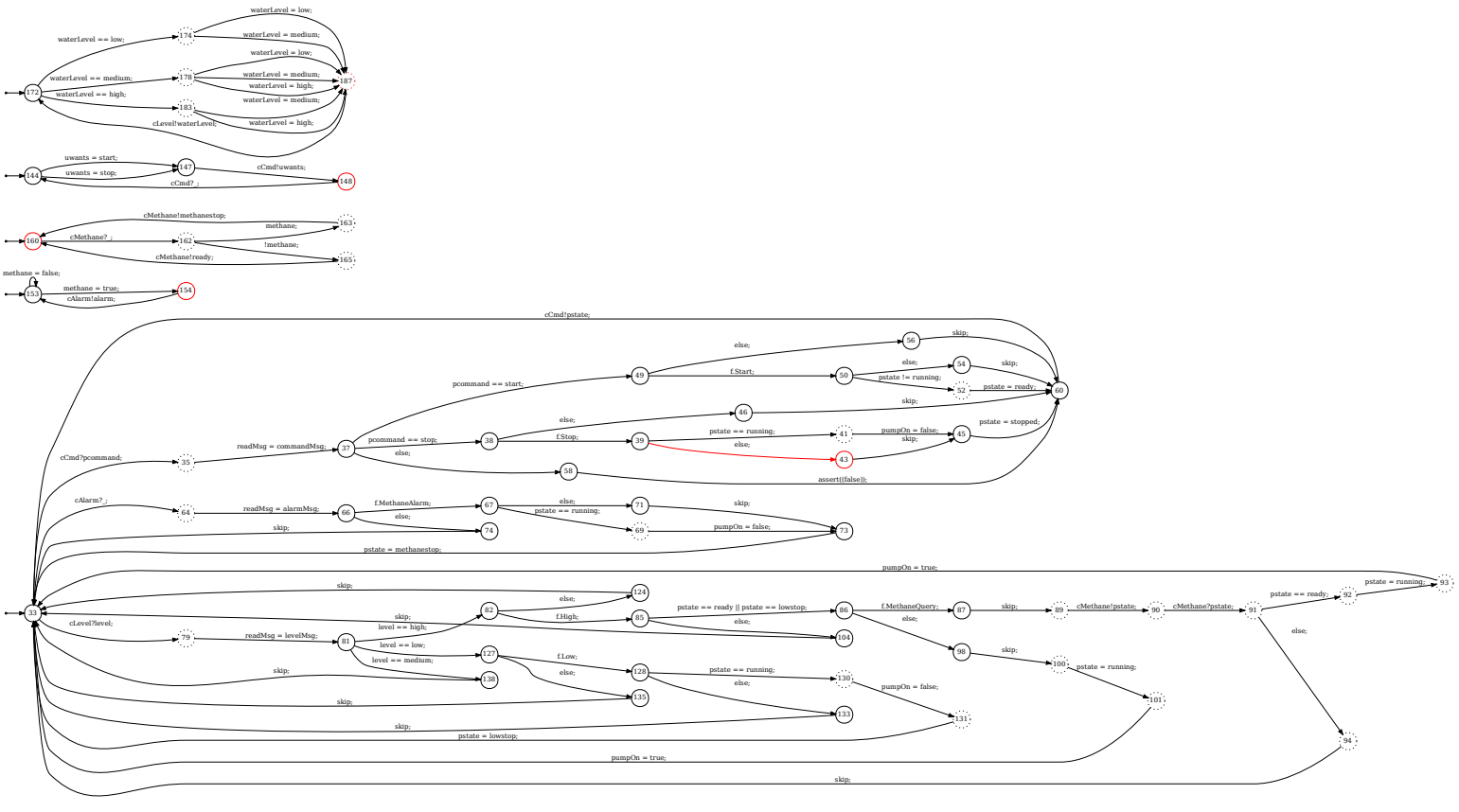
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
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147
148
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cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
79
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89
90
91
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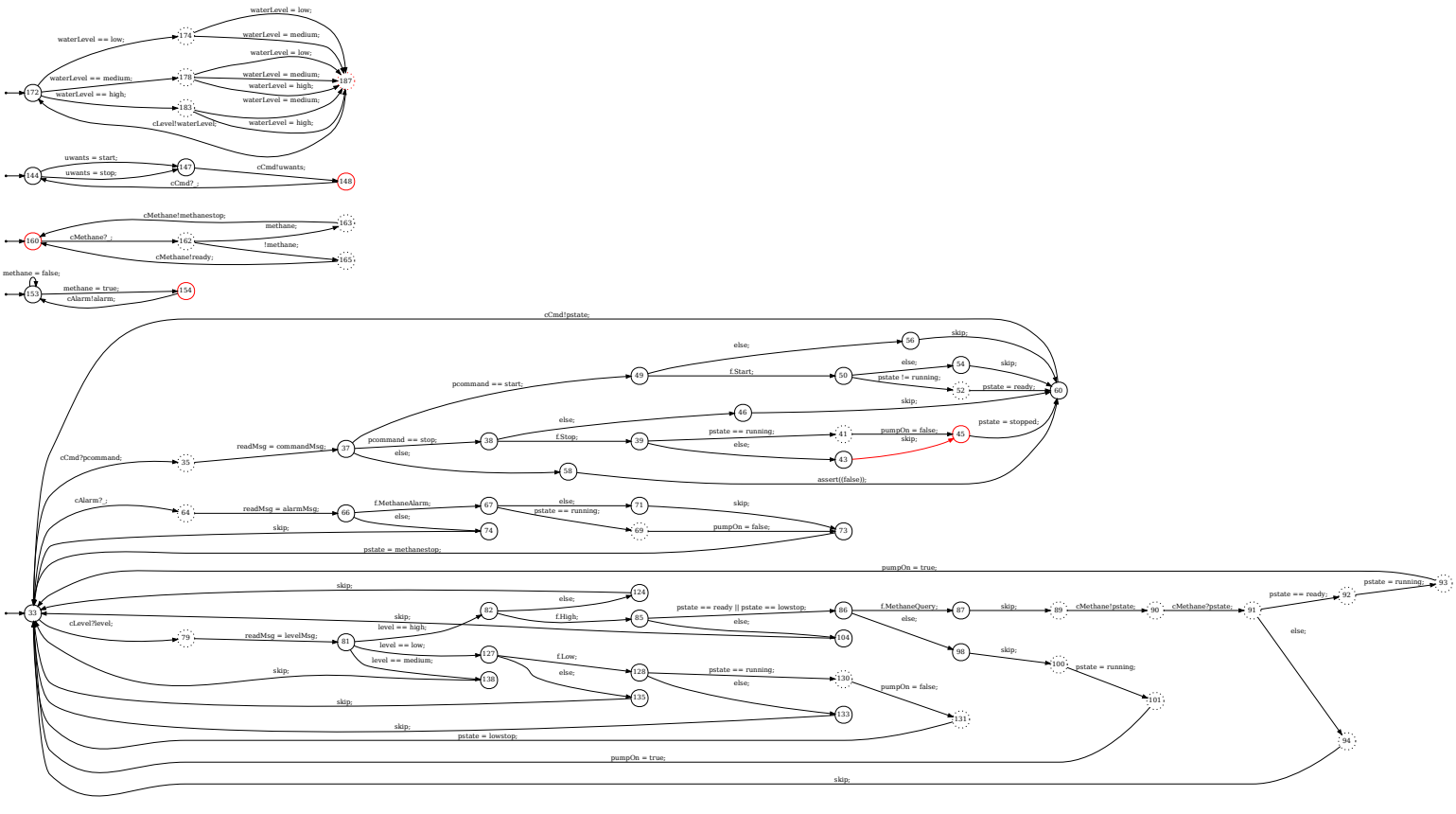
94
98
100
101
104
124
127
128
130
131
133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
49
f.Start;
50
else;
54
skip;
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
skip;
pstate = lowstop;
pumpOn = true;
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pstate == running;
else;
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pumpOn = false;
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skip;
pstate = lowstop;
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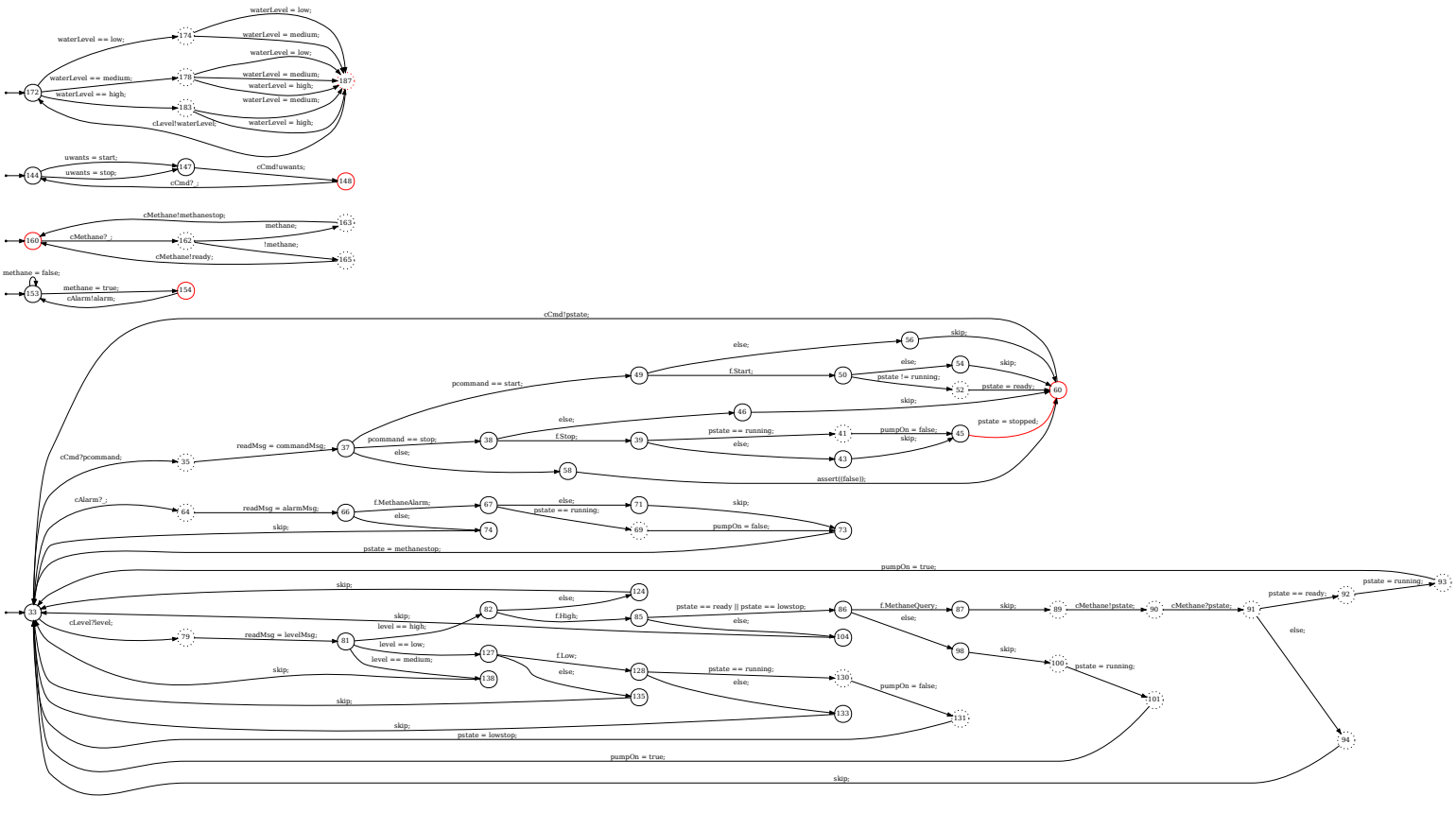
skip;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waterLevel = medium;
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waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
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skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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67
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71
skip;
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skip;
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127
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pstate == ready || pstate == lowstop;
86
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91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
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pstate = running;
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else;
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pumpOn = false;
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skip;
skip;
pstate = lowstop;
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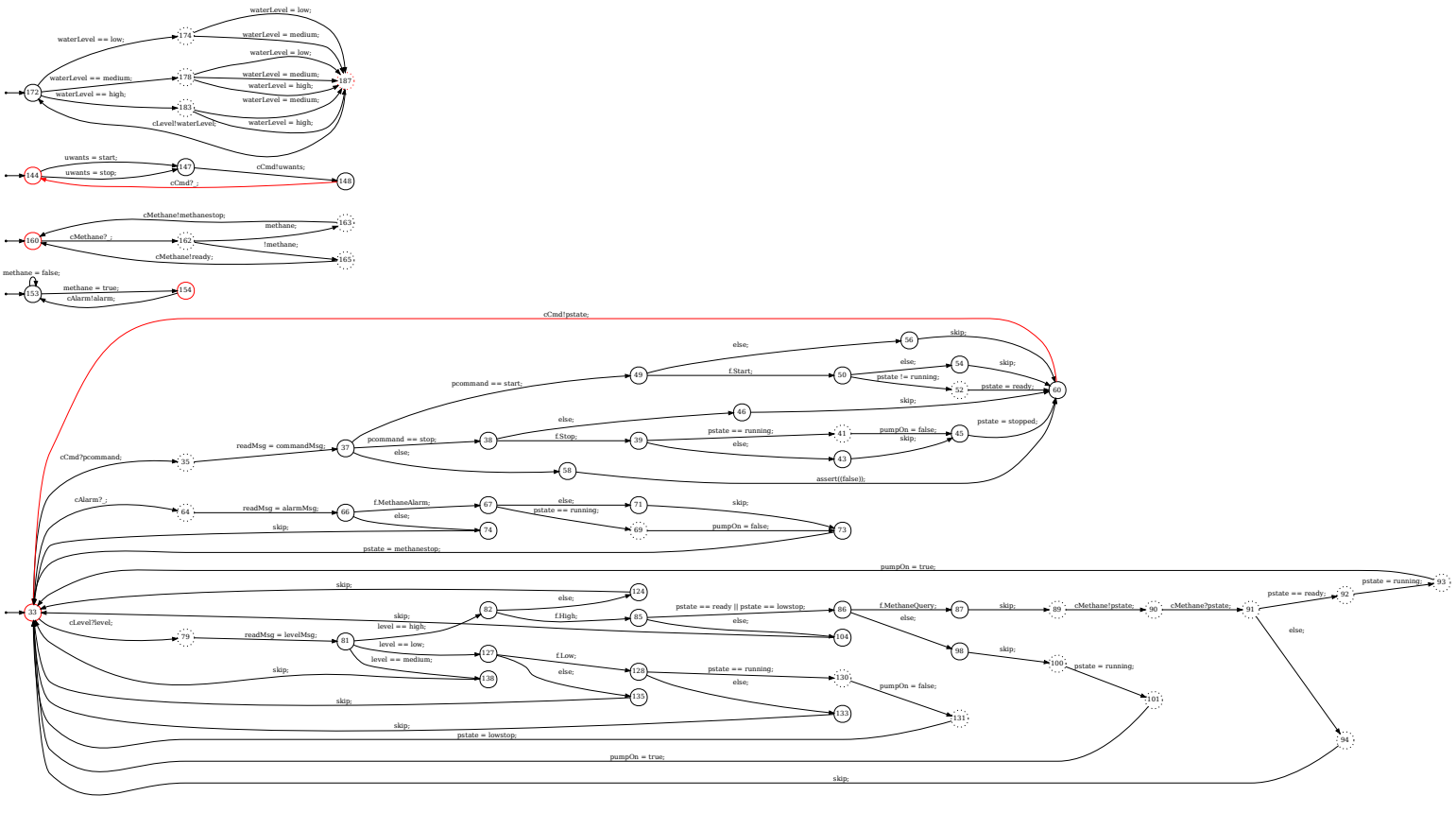
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waterLevel == low;
waterLevel = low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
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f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
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skip;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
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pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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skip;
pstate == running;
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69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
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else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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else;
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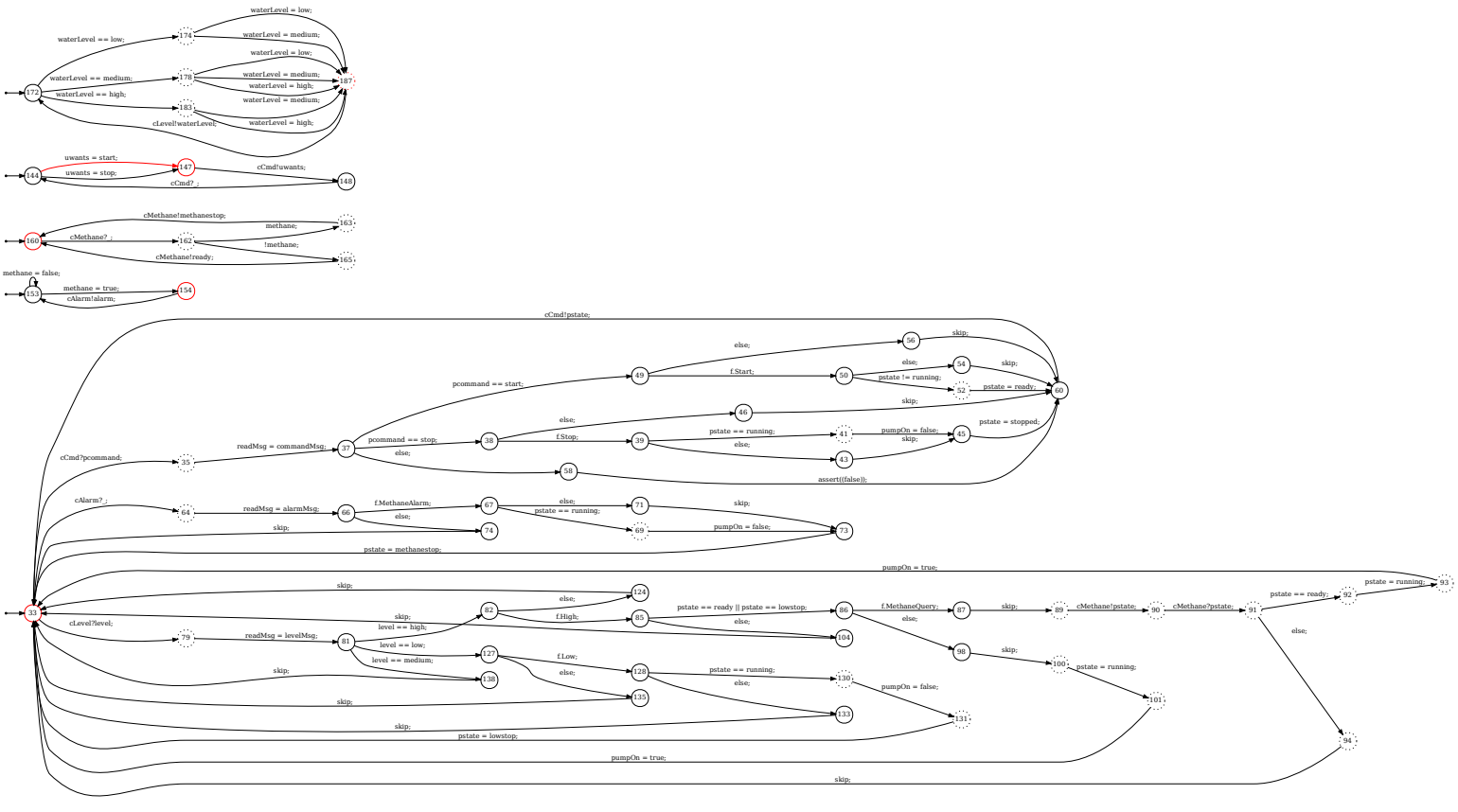
pumpOn = true;
skip;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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
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148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
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pstate != running;
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pstate = ready;
60
pcommand == start;
f.Start;
skip;
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else;
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pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
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f.Stop;
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assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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f.High;
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pstate == ready || pstate == lowstop;
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cLevel?level;
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readMsg = levelMsg;
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skip;
level == high;
level == low;
level == medium;
127
f.Low;
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128
pstate == running;
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135
skip;
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skip;
pstate = lowstop;
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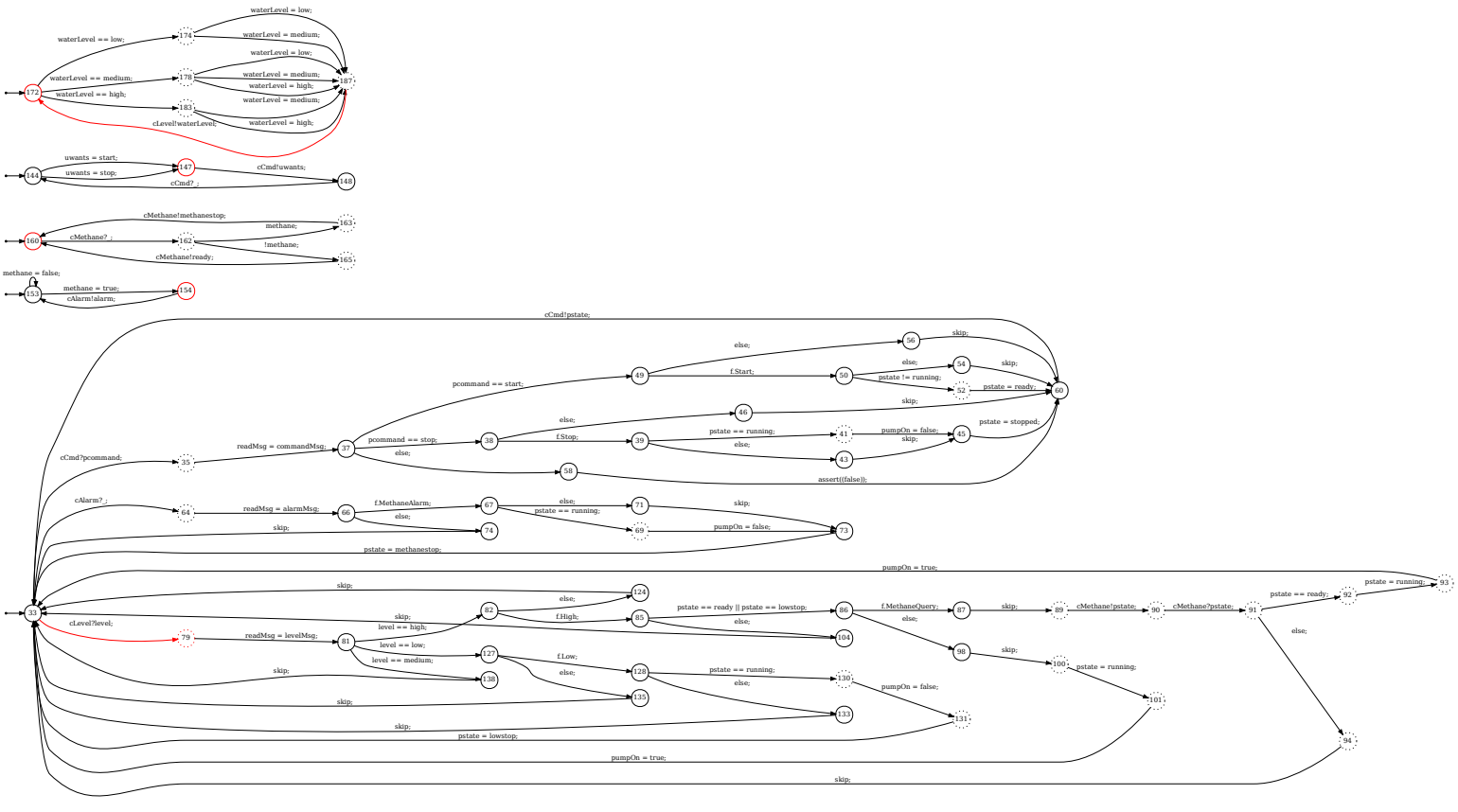
pumpOn = true;
skip;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waterLevel == low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
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waterLevel = medium;
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waterLevel = high;
144
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148
uwants = start;
uwants = stop;
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cCmd? ;
160
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163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
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f.Start;
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pcommand == start;
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pstate = stopped;
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level == low;
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138
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pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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cMethane?pstate;
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pstate == ready;
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pumpOn = false;
pstate = lowstop;
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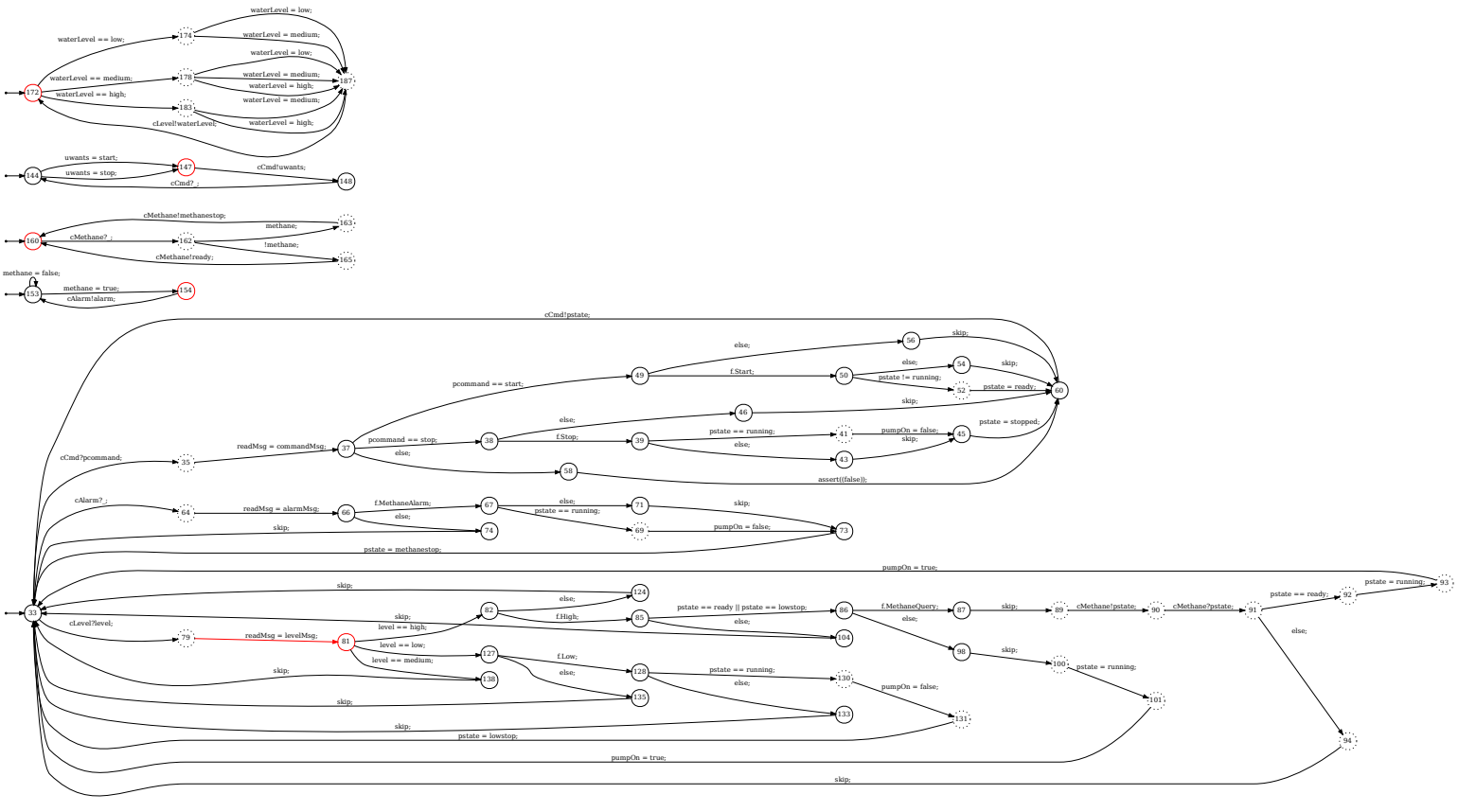
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waterLevel == low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
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else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
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pcommand == start;
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41
pstate == running;
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45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
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cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
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128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
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else;
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pstate == ready;
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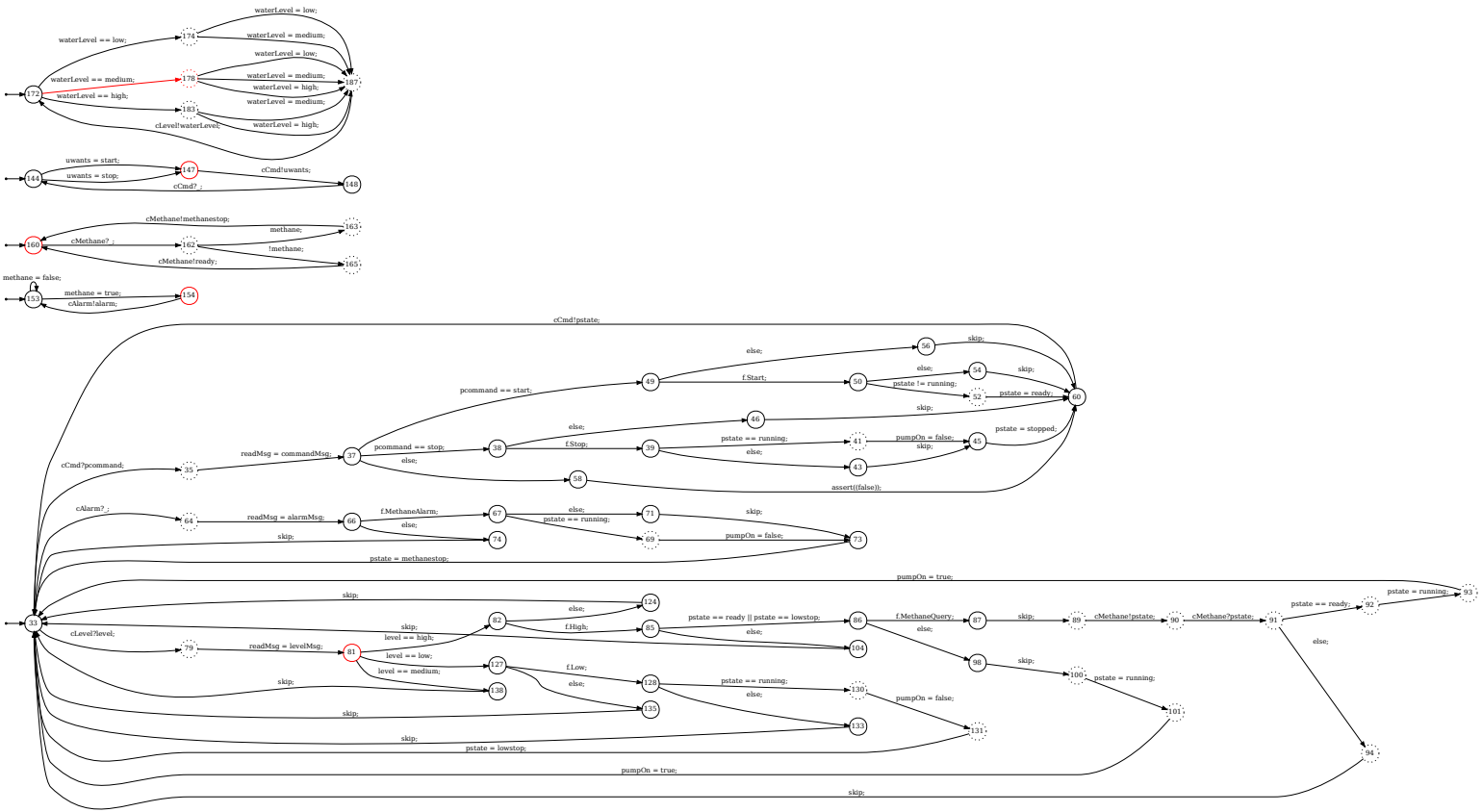
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waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
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135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
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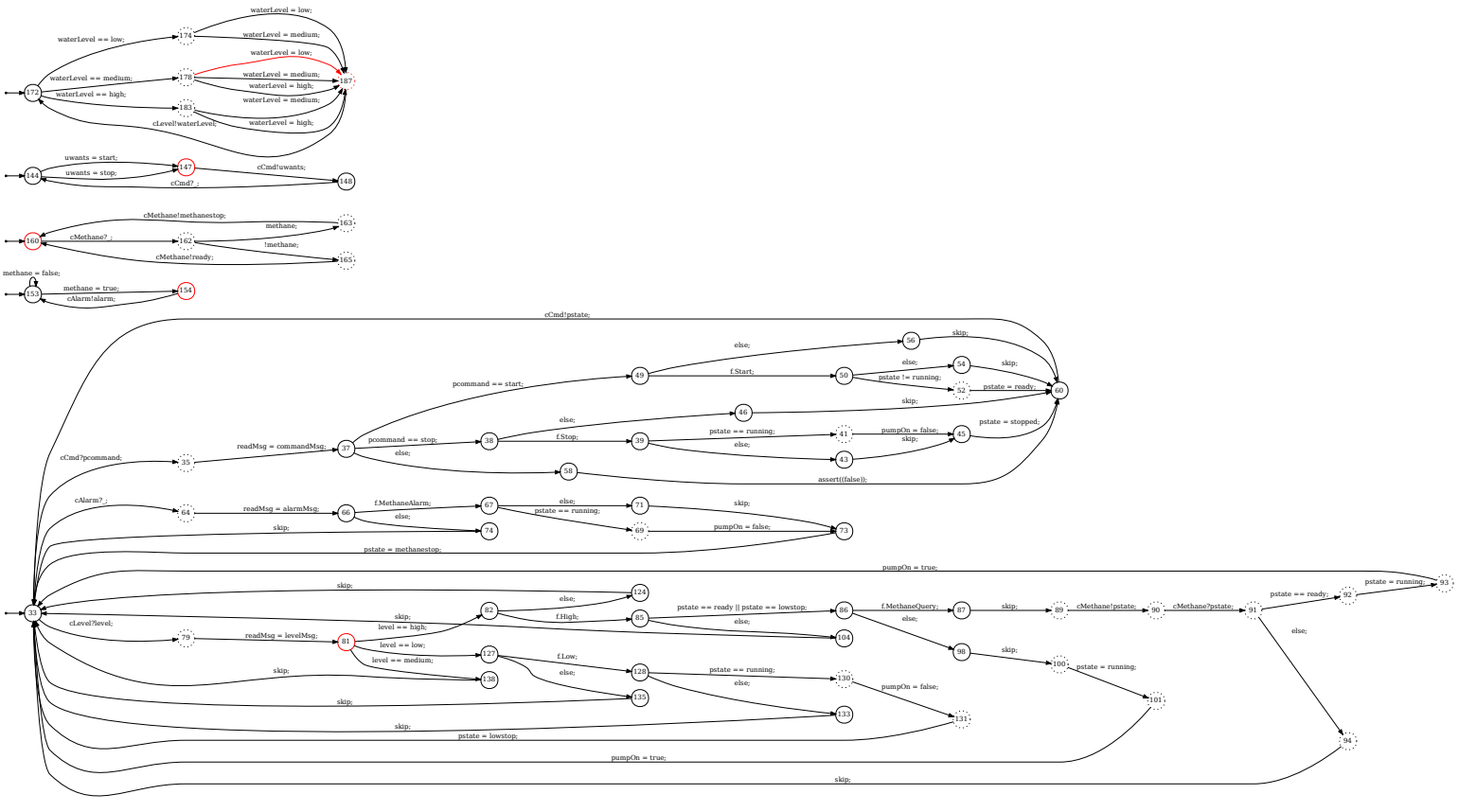
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waterLevel == low;
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waterLevel == high;
waterLevel = high;
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54
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49
f.Start;
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52
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pcommand == start;
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46
else;
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pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
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else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
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pcommand == stop;
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readMsg = alarmMsg;
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f.MethaneAlarm;
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pstate = running;
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else;
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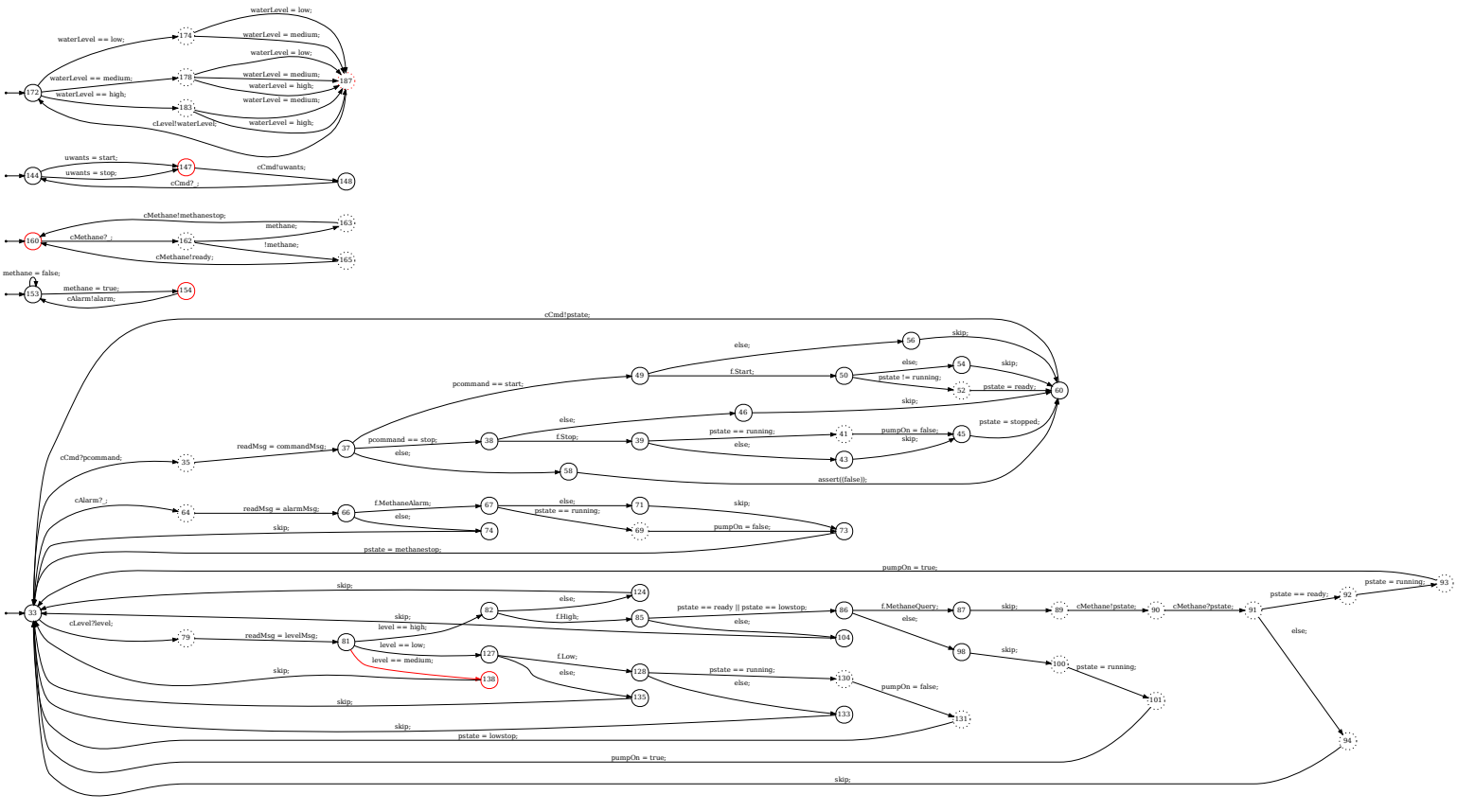
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readMsg = levelMsg;
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f.Low;
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135
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87
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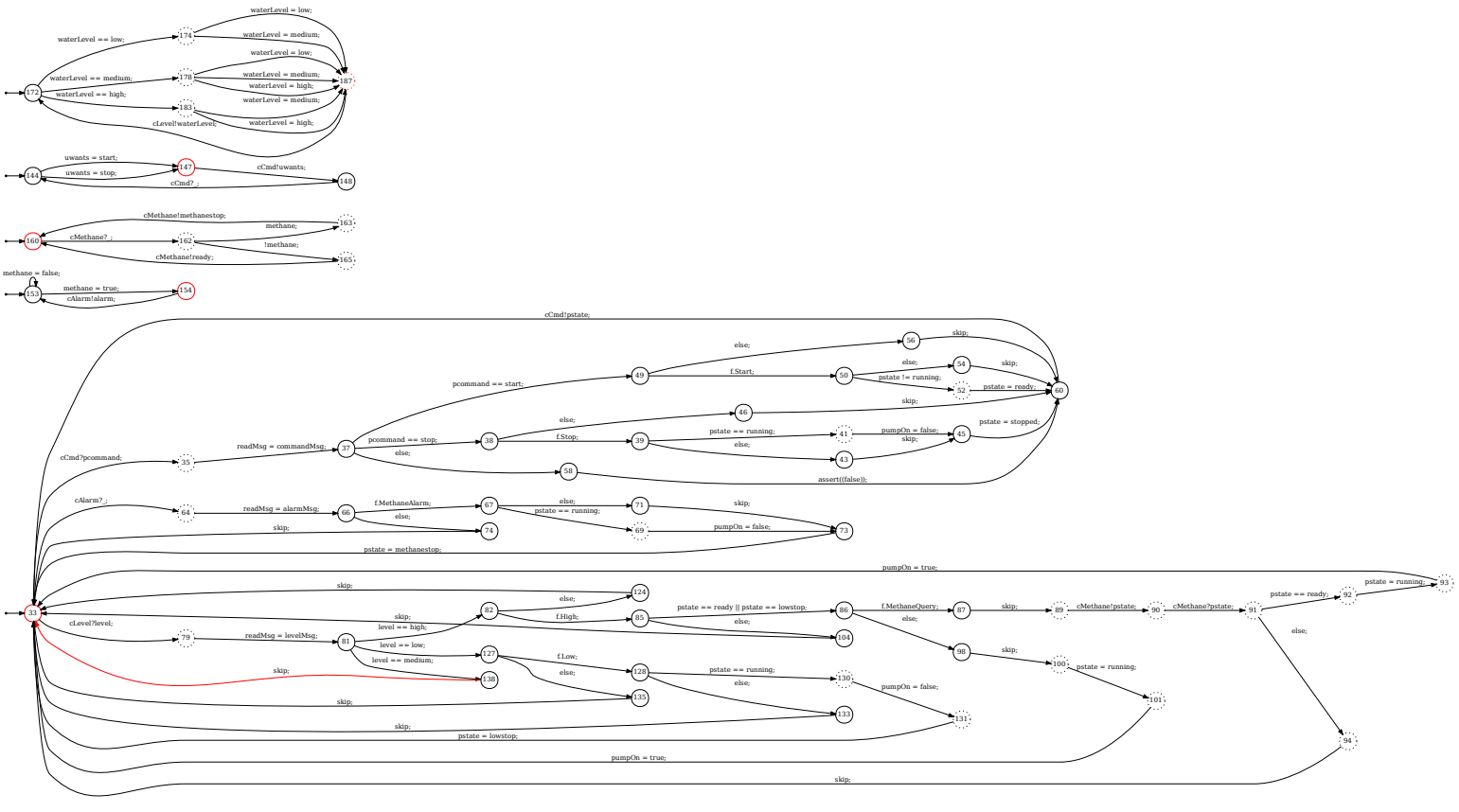
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cCmd!pstate;
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138
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
f.Start;
skip;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
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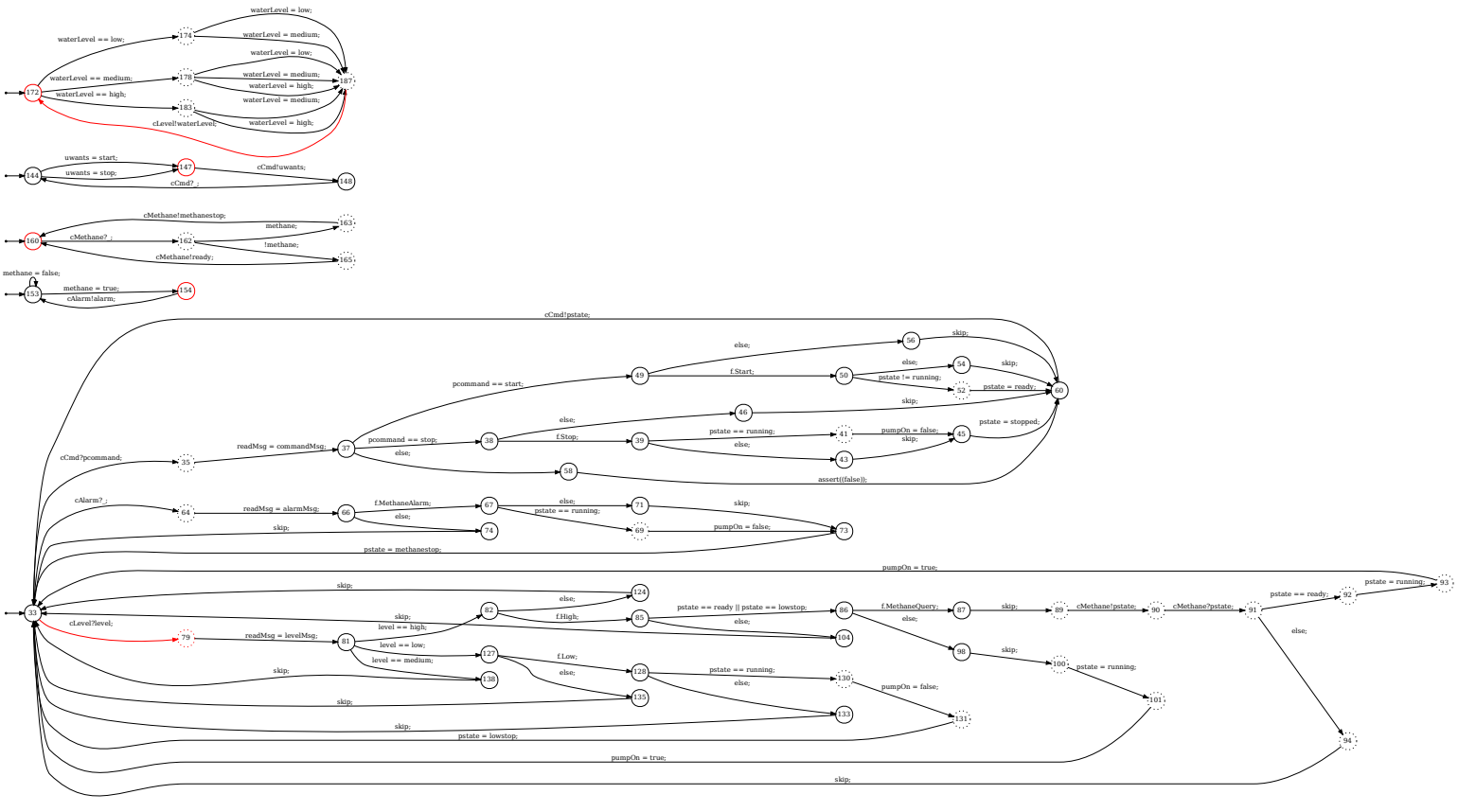
pumpOn = true;
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate = lowstop;


172
174
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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
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pstate = running;
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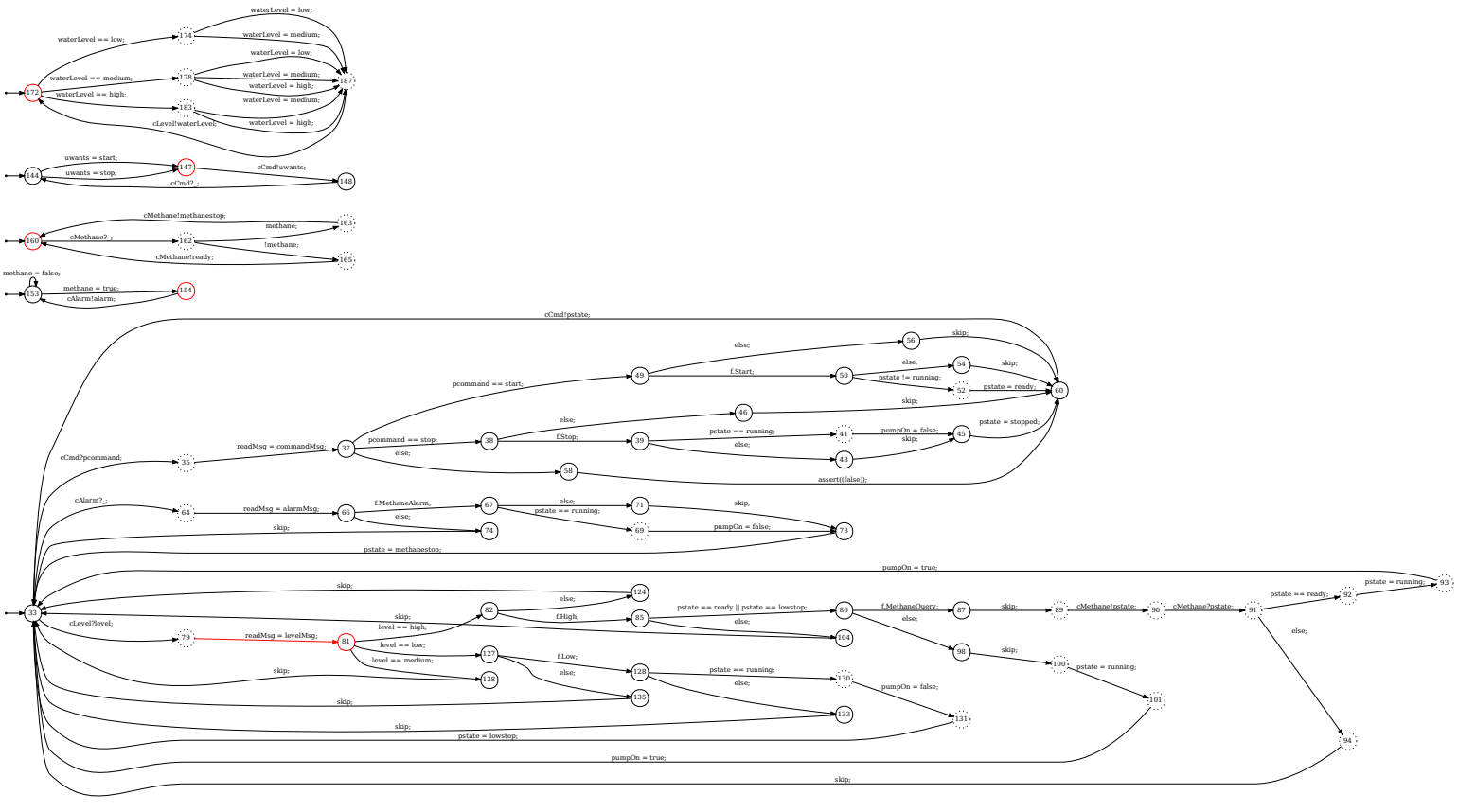
94
pumpOn = false;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
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else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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level == high;
level == low;
level == medium;
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f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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89
cMethane!pstate;
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cMethane?pstate;
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98
skip;
100
pstate = running;
101
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else;
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pumpOn = false;
133
131
pumpOn = true;
skip;
pstate == ready;
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pstate = running;
93
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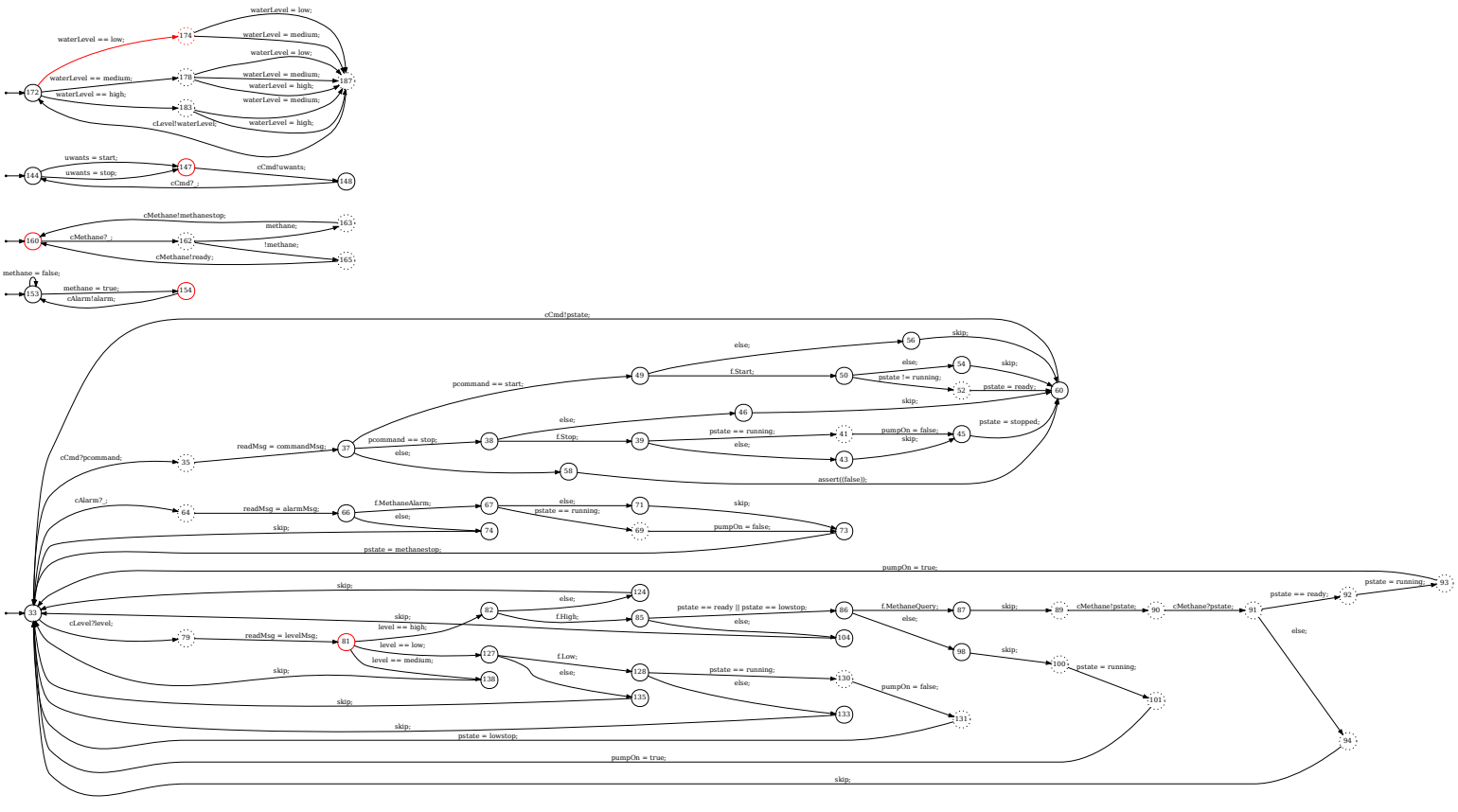
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187
waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
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cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
33
79
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124
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131
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level == medium;
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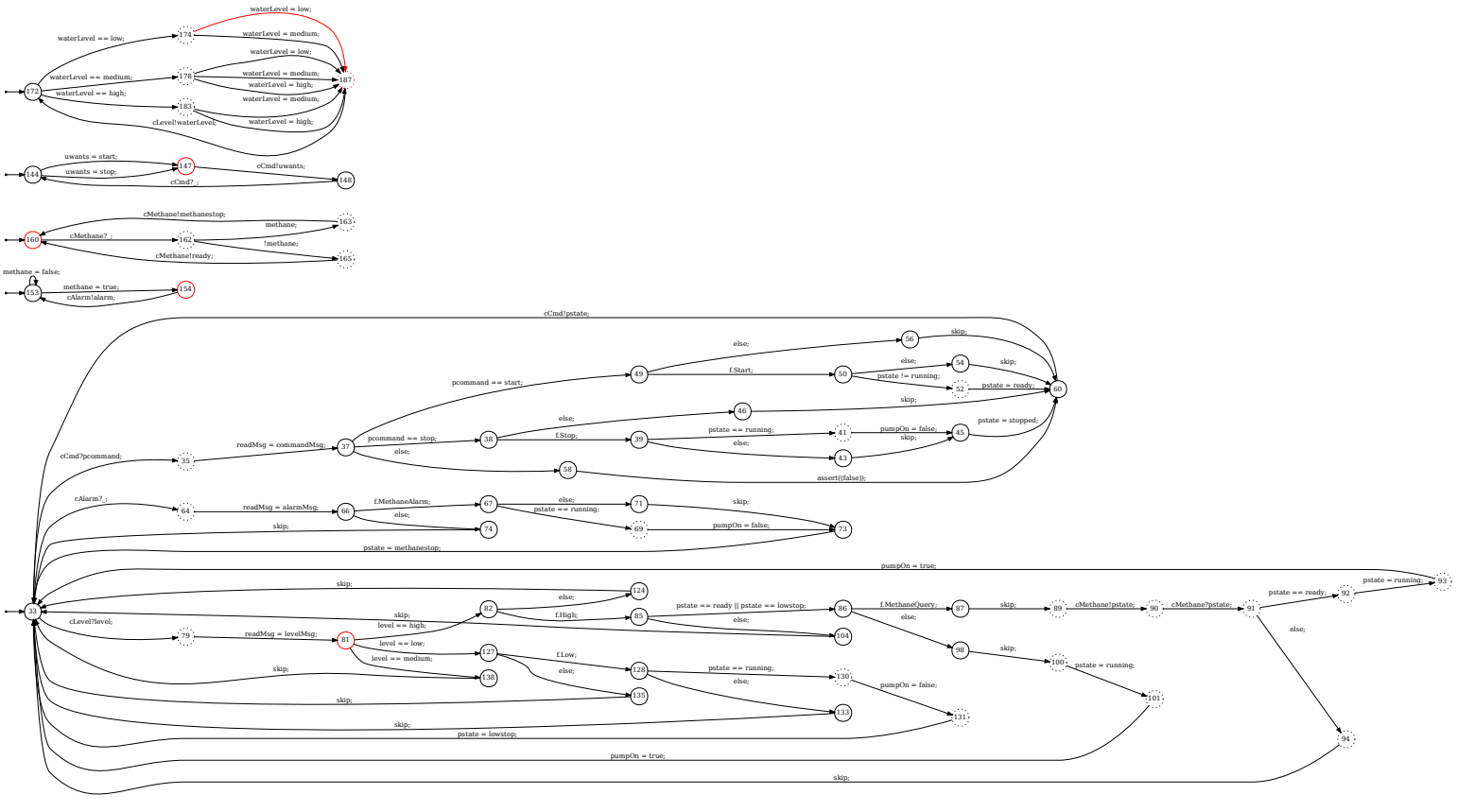
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate == ready;
pstate = lowstop;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waterLevel = medium;
waterLevel = low;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
160
163
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
else;
skip;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
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58
assert((false));
cAlarm? ;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
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skip;
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74
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pumpOn = false;
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skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
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f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
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cMethane?pstate;
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pstate == ready;
92
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else;
else;
104
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79
readMsg = levelMsg;
skip;
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level == low;
level == medium;
127
f.Low;
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128
pstate == running;
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else;
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skip;
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pstate = running;
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skip;
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pumpOn = false;
133
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skip;
skip;
pstate = lowstop;
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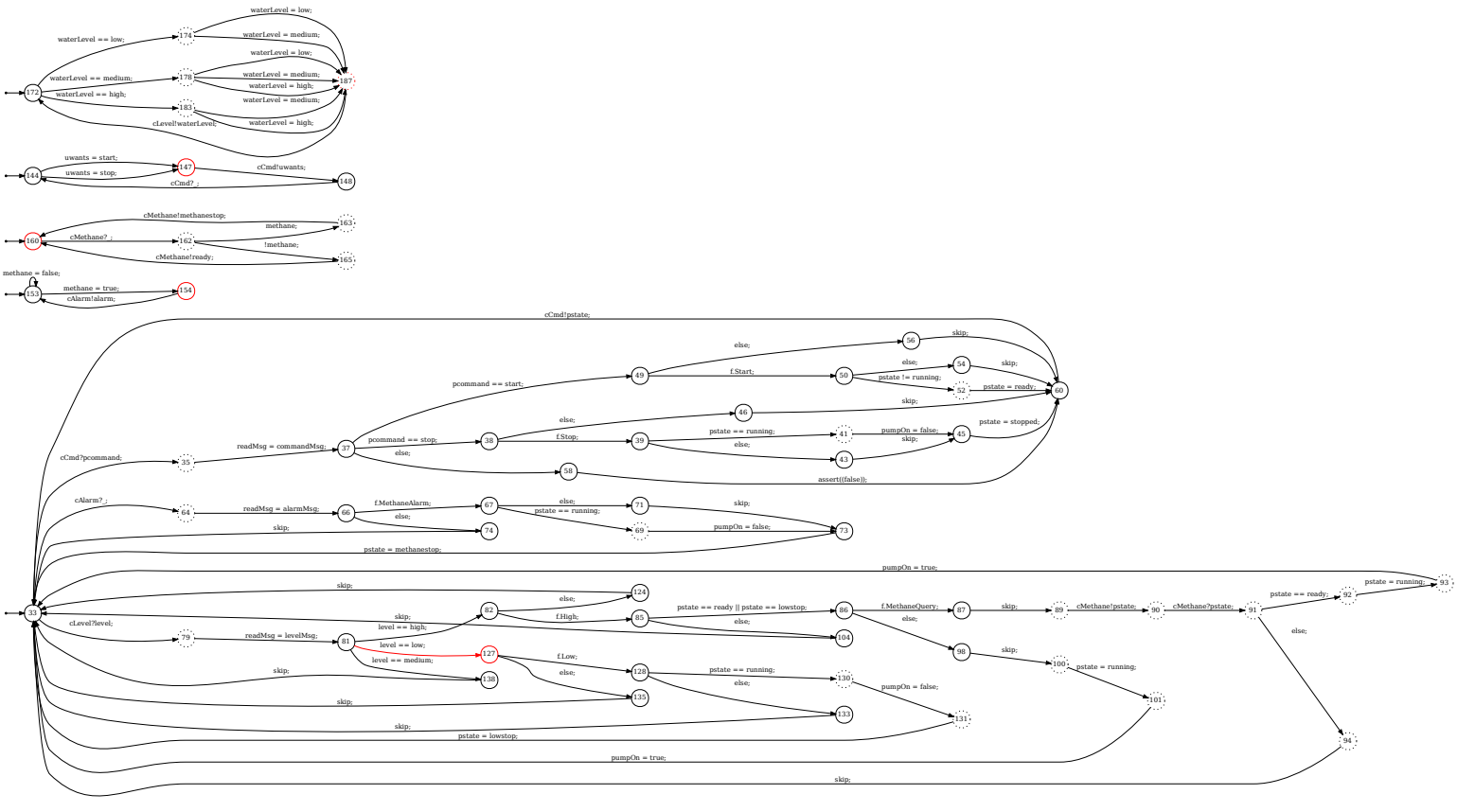
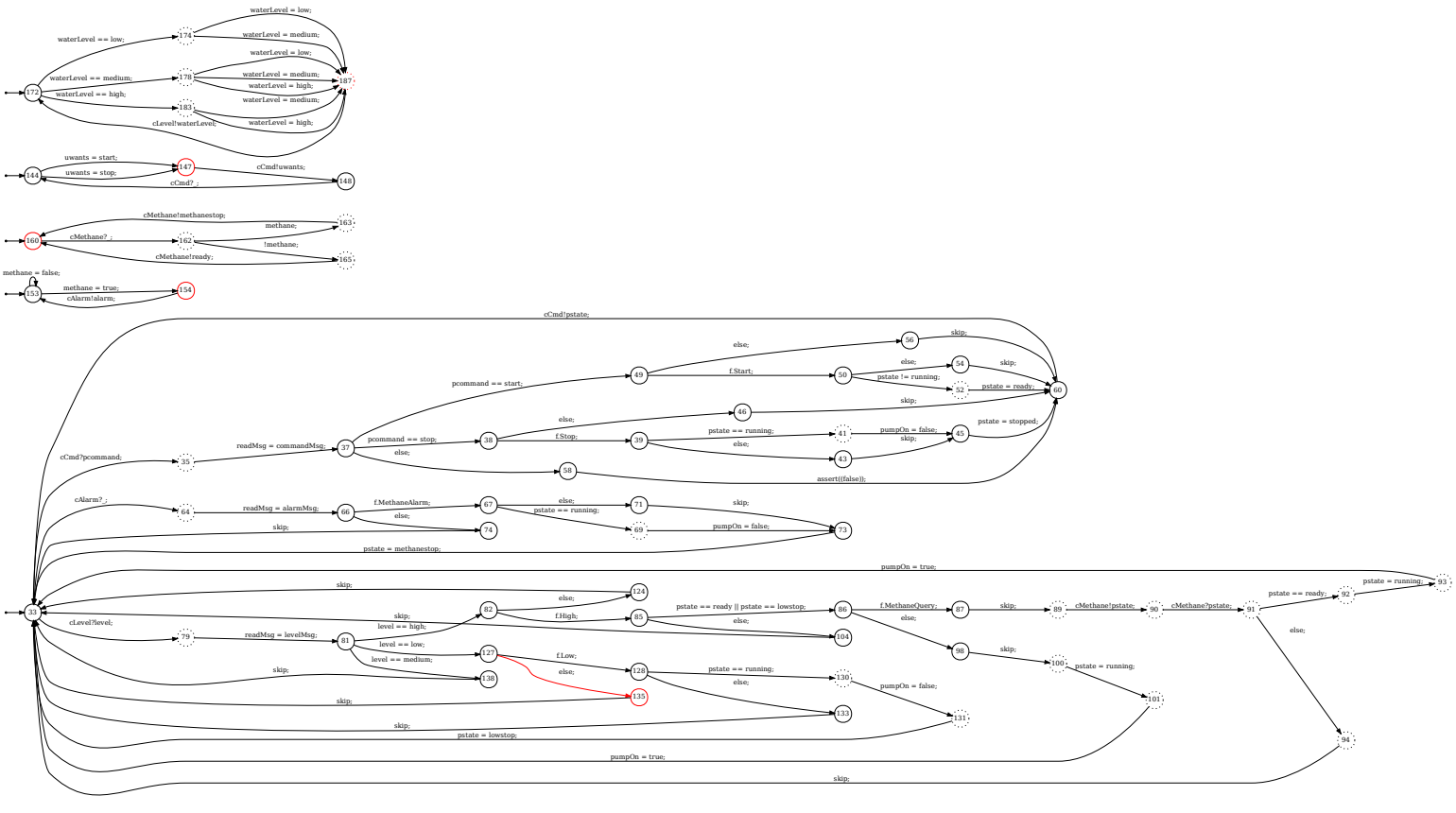
pumpOn = true;
skip;


waterLevel = low;
waterLevel == low;
waterLevel = medium;
waterLevel = low;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
cMethane!methanestop;
methane;
cMethane? ;
!methane;
cMethane!ready;
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
skip;
pcommand == start;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
else;
pstate = stopped;
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
skip;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
else;
skip;
pstate = running;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
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162
163
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cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
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methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
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pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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assert((false));
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readMsg = alarmMsg;
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f.MethaneAlarm;
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67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
pstate == running;
else;
130
pumpOn = false;
131
133
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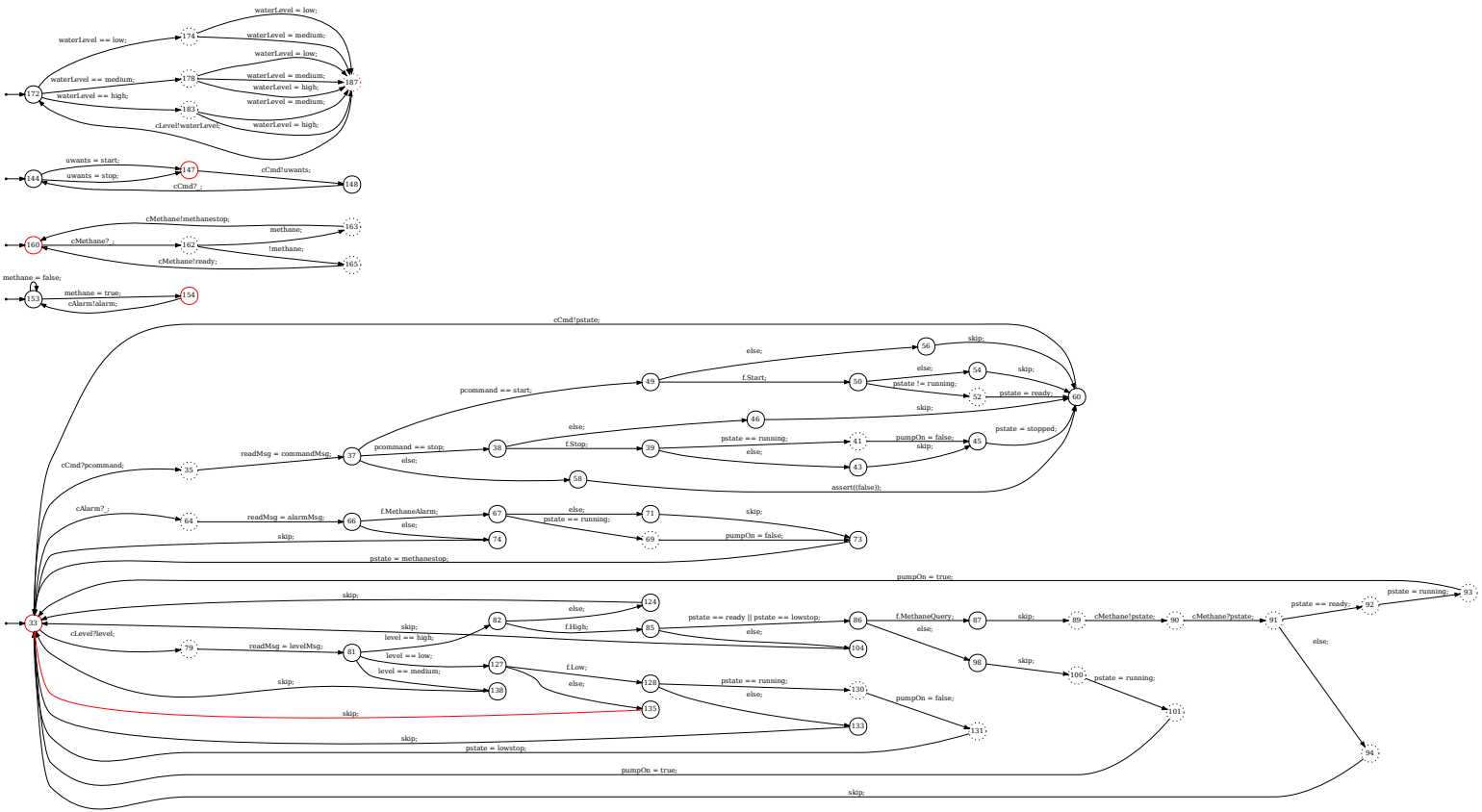
98
skip;
100
pstate = running;
101
94
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
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f.Start;
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pstate != running;
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pstate = ready;
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pcommand == start;
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skip;
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pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
38
f.Stop;
39
else;
43
else;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
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pumpOn = false;
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pstate = methanestop;
pumpOn = true;
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f.High;
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readMsg = levelMsg;
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level == medium;
127
f.Low;
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128
else;
138
135
skip;
skip;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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pstate == ready;
92
pstate = running;
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pumpOn = false;
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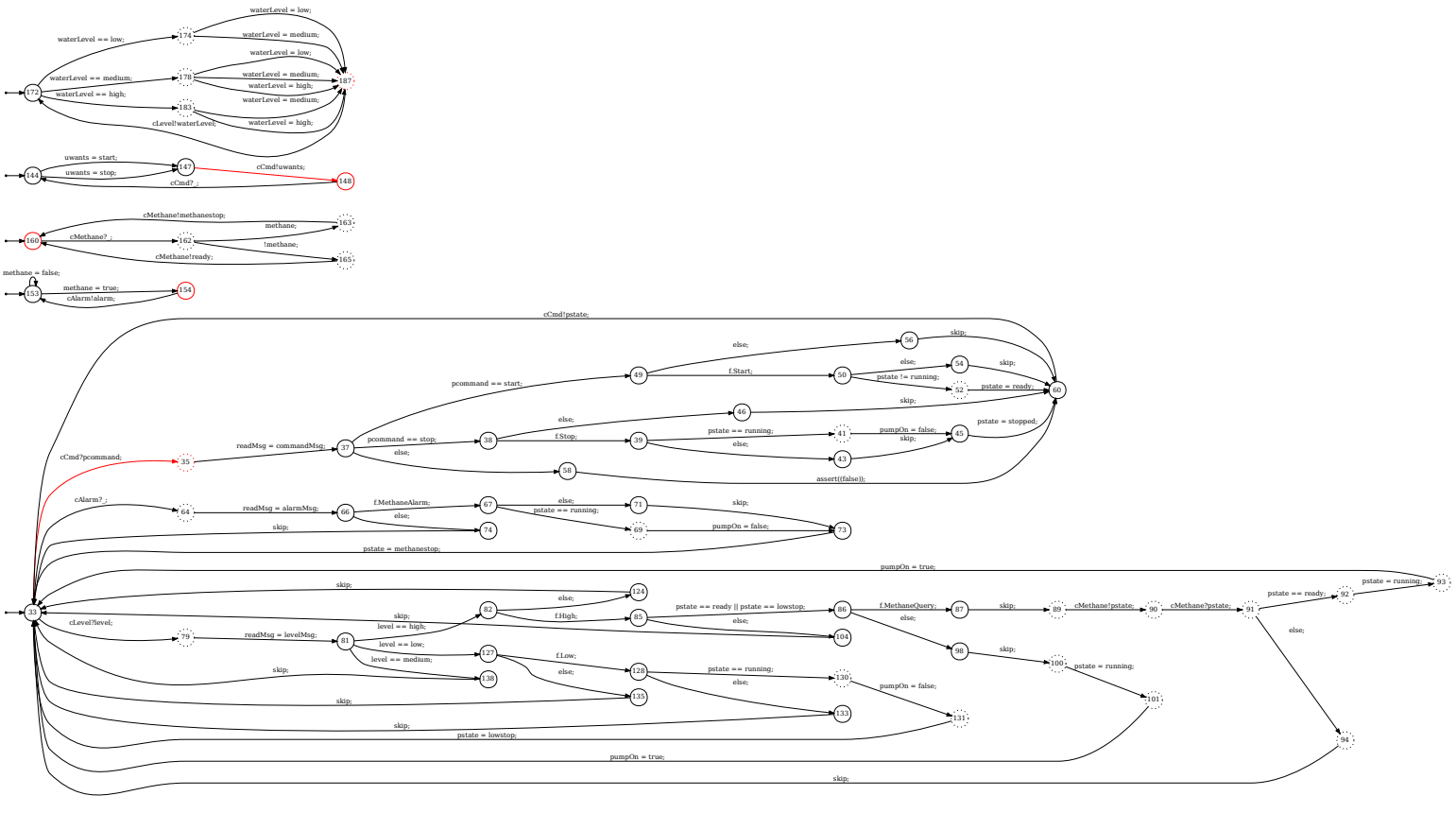
pstate = lowstop;
pumpOn = true;
skip;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waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
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methane = false;
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pstate = stopped;
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assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
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66
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else;
67
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74
69
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pumpOn = true;
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124
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82
f.High;
85
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104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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cMethane?pstate;
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92
pstate = running;
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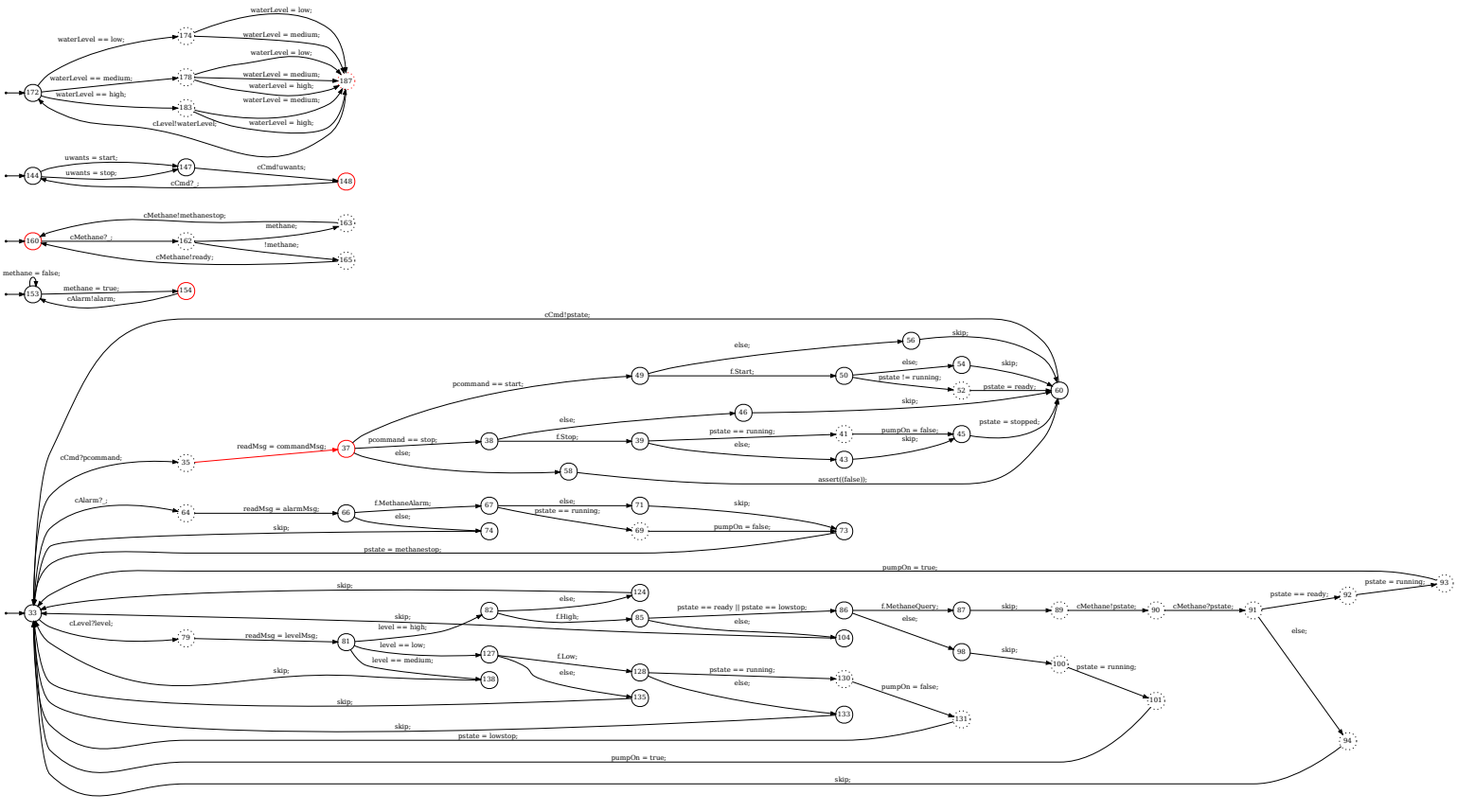
pumpOn = true;
skip;


172
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waterLevel == low;
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waterLevel = medium;
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!methane;
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52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
else;
43
else;
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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else;
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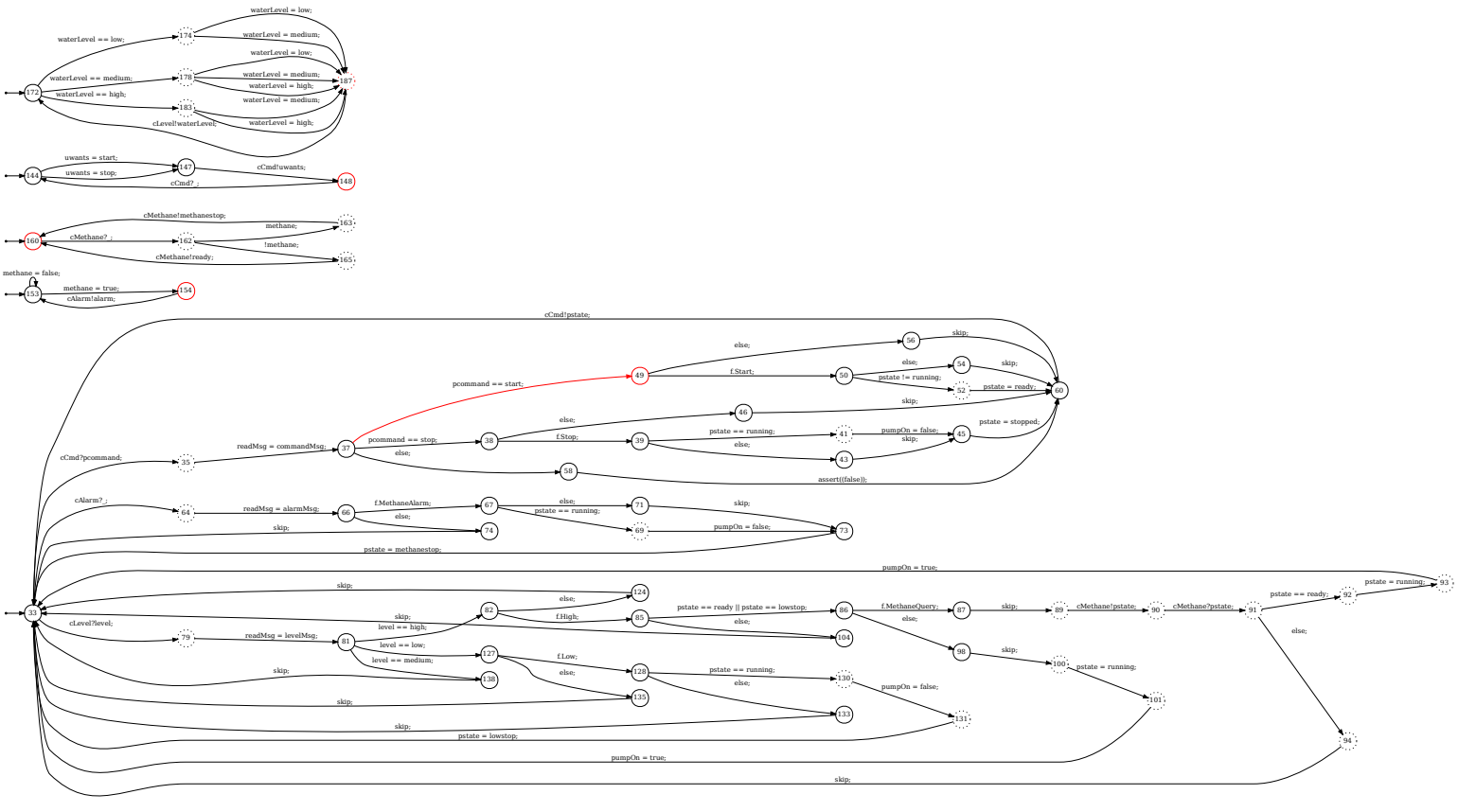
133
131
pstate = lowstop;
pumpOn = true;
skip;
92
pstate = ready;
93
94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waterLevel == low;
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waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
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waterLevel == high;
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waterLevel = medium;
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148
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cMethane? ;
162
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methane;
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163
cMethane!ready;
165
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50
pstate != running;
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pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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pumpOn = true;
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pstate == ready;
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pstate = running;
93
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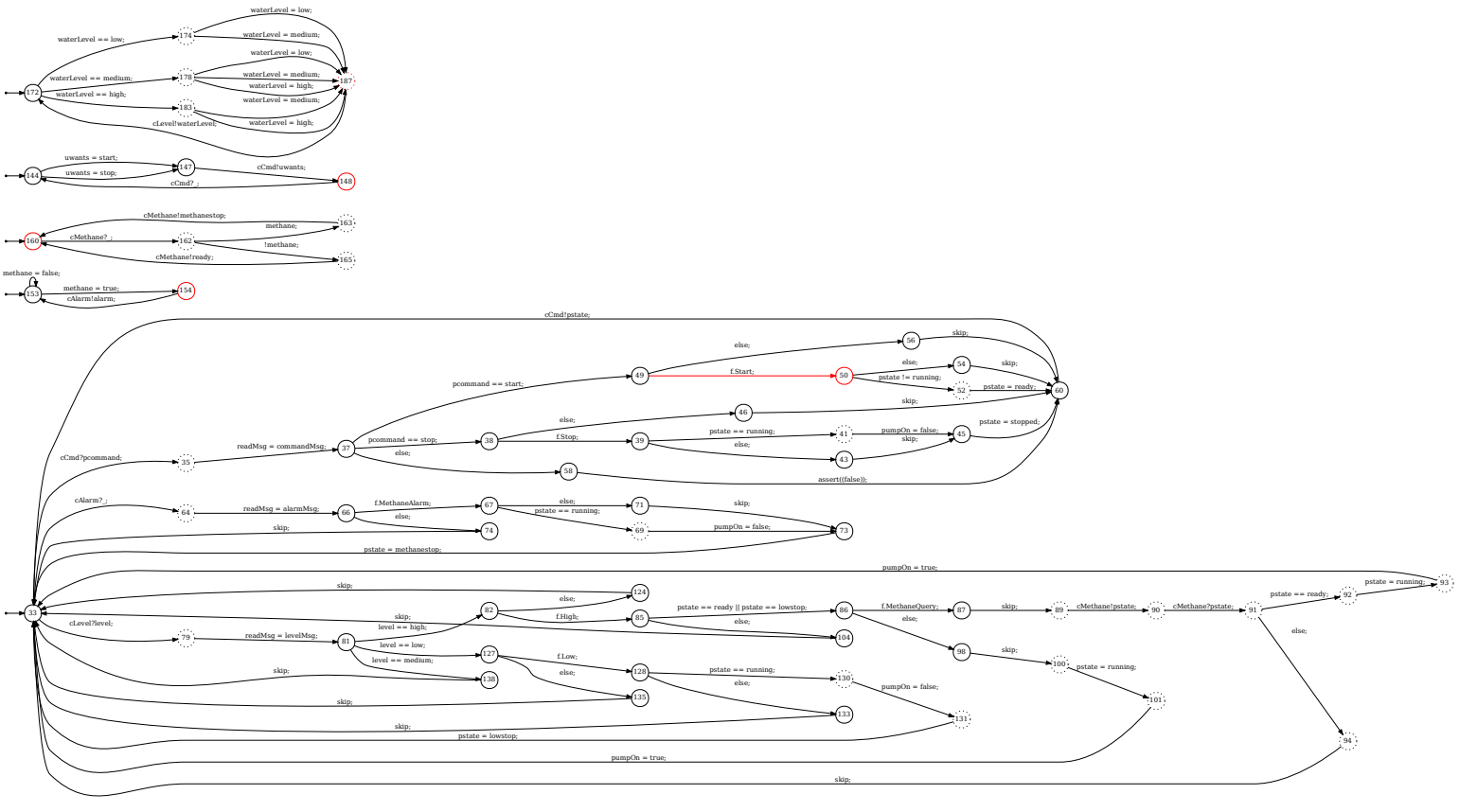
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waterLevel = medium;
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waterLevel = high;
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183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
pcommand == start;
f.Start;
50
pstate != running;
52
pstate = ready;
60
skip;
46
else;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
38
else;
f.Stop;
39
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
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skip;
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else;
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f.High;
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138
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pstate = lowstop;
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else;
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pstate = running;
93
100
pstate = running;
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else;
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pumpOn = false;
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skip;
pstate = lowstop;
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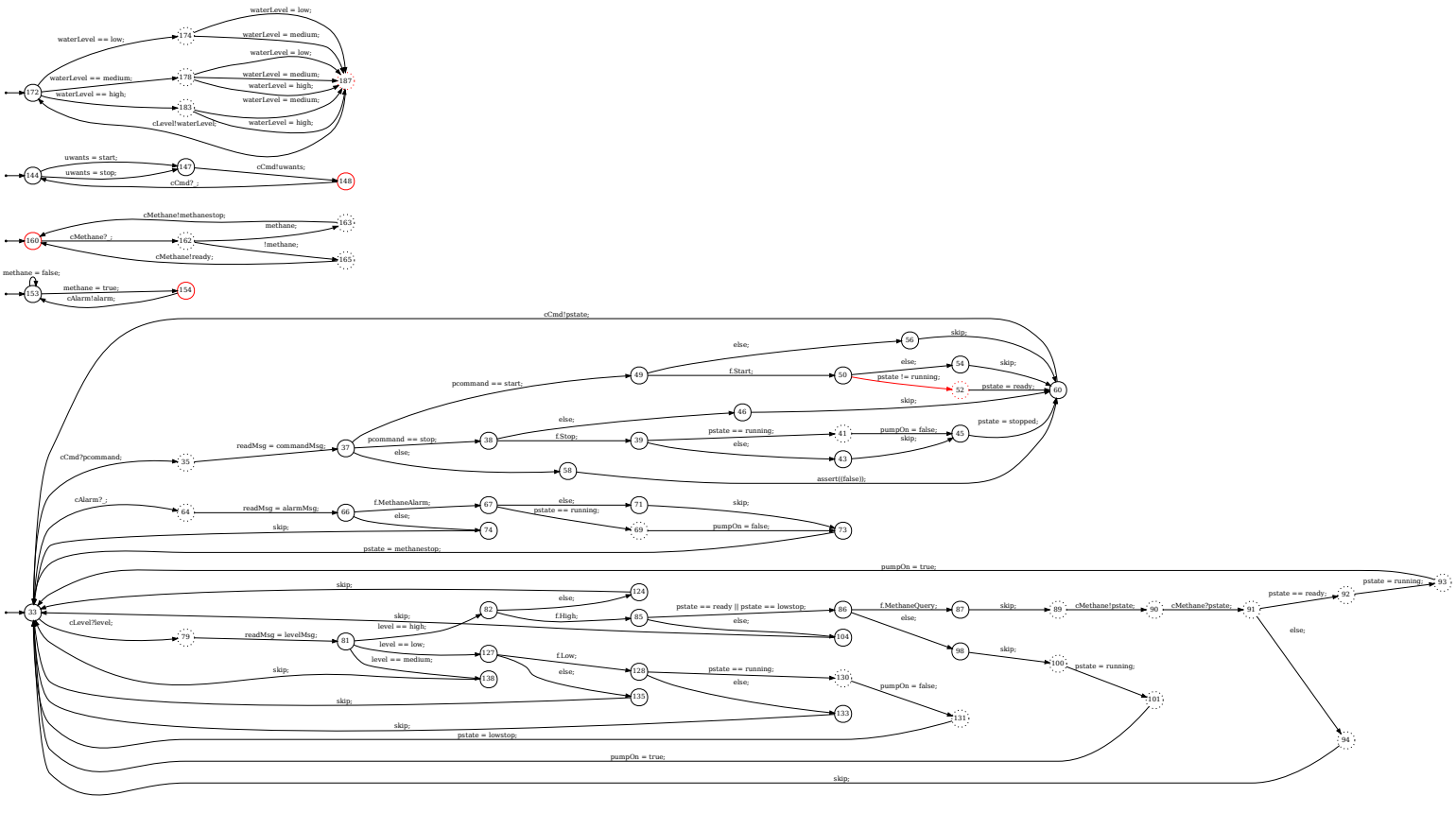
skip;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waterLevel == low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
49
f.Start;
pstate != running;
52
pstate = ready;
60
skip;
46
pcommand == start;
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
39
f.Stop;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
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69
pumpOn = false;
73
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93
else;
98
skip;
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pstate = running;
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else;
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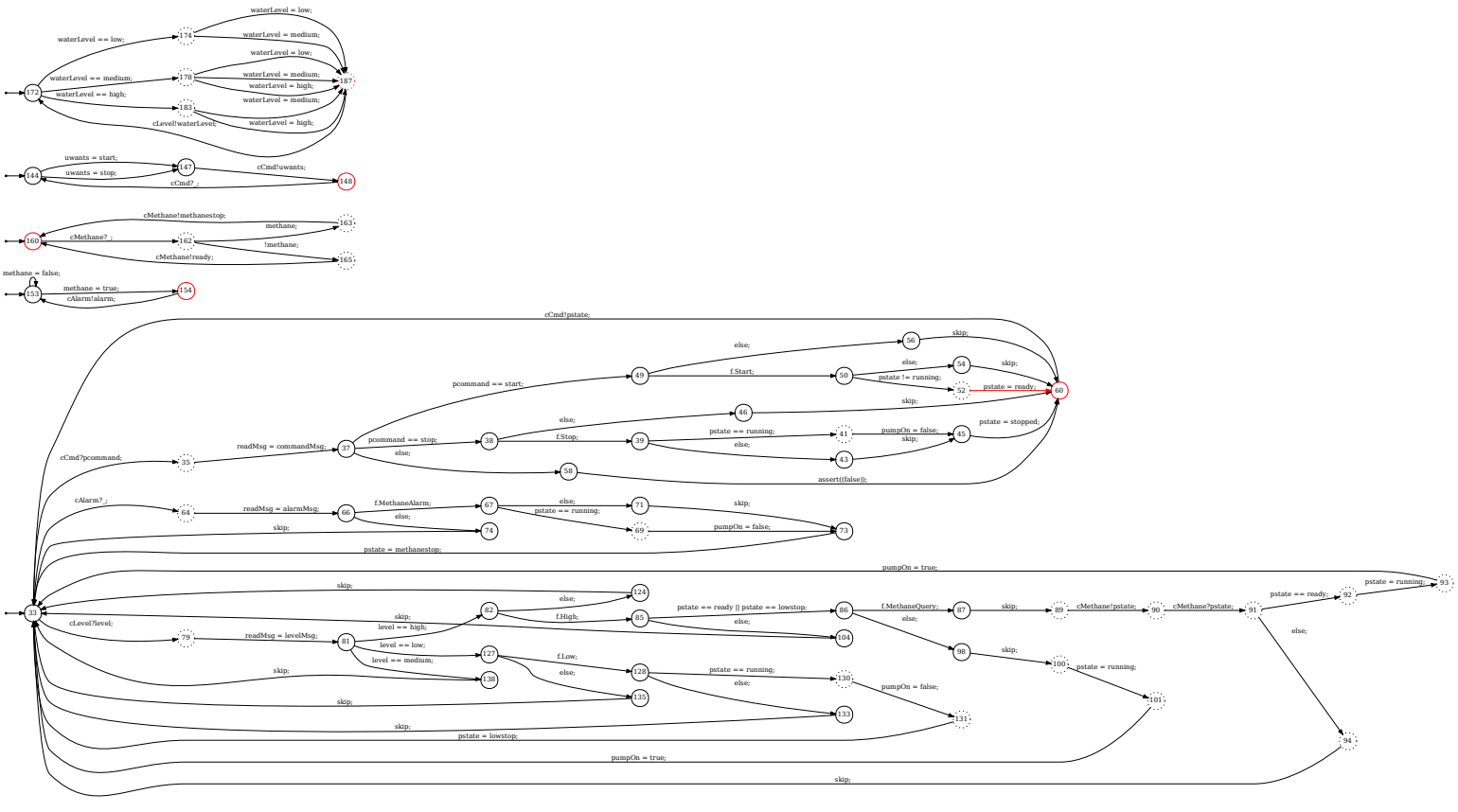
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waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
pcommand == start;
f.Start;
pstate != running;
52
pstate = ready;
60
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
cCmd?pcommand;
35
readMsg = commandMsg;
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pcommand == stop;
38
f.Stop;
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else;
else;
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assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
else;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
104
else;
98
skip;
100
pstate = running;
101
level == low;
127
f.Low;
level == medium;
138
else;
128
pstate == running;
else;
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skip;
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skip;
skip;
pstate = lowstop;
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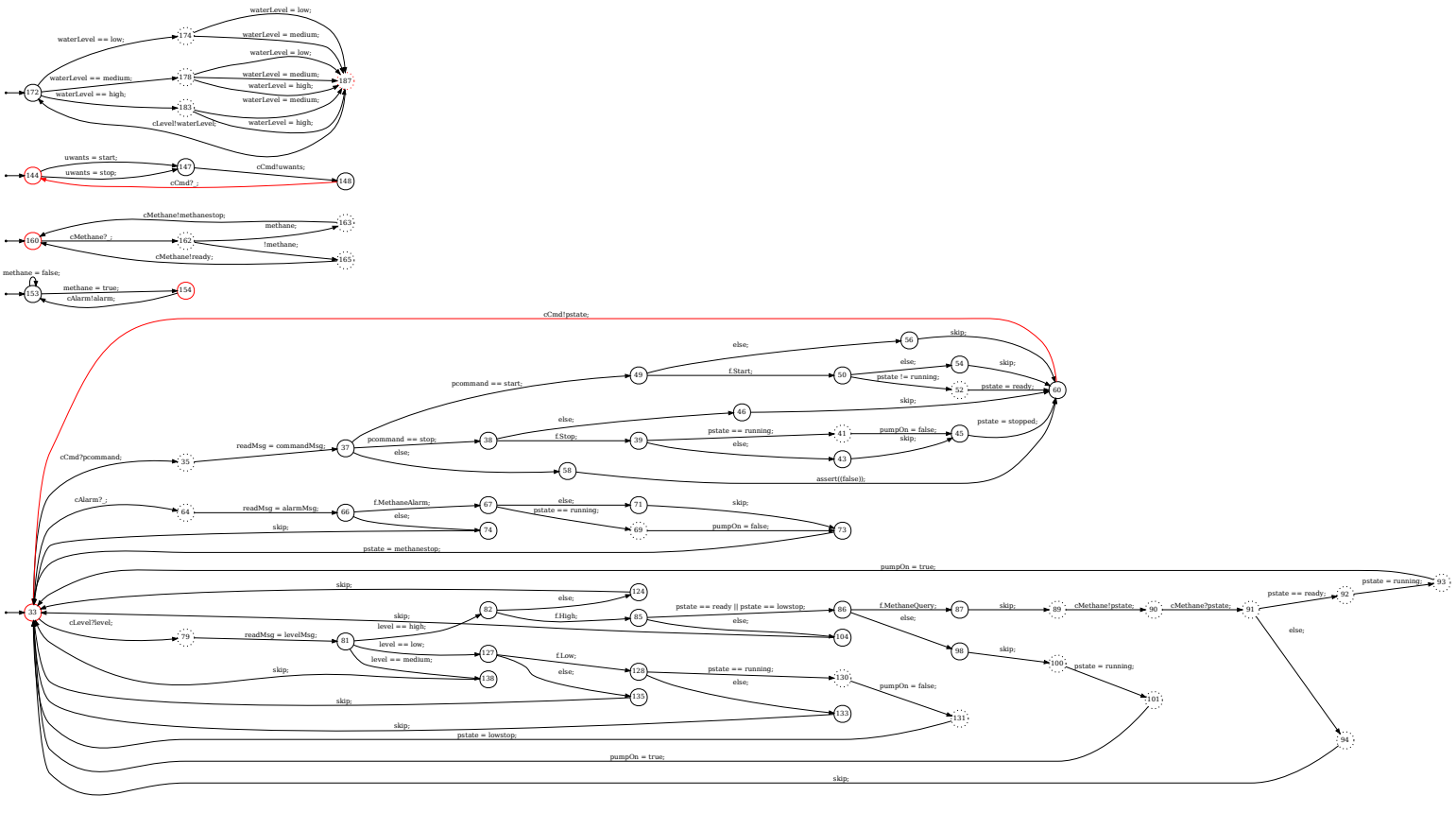
pumpOn = true;
skip;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waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
93
else;
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skip;
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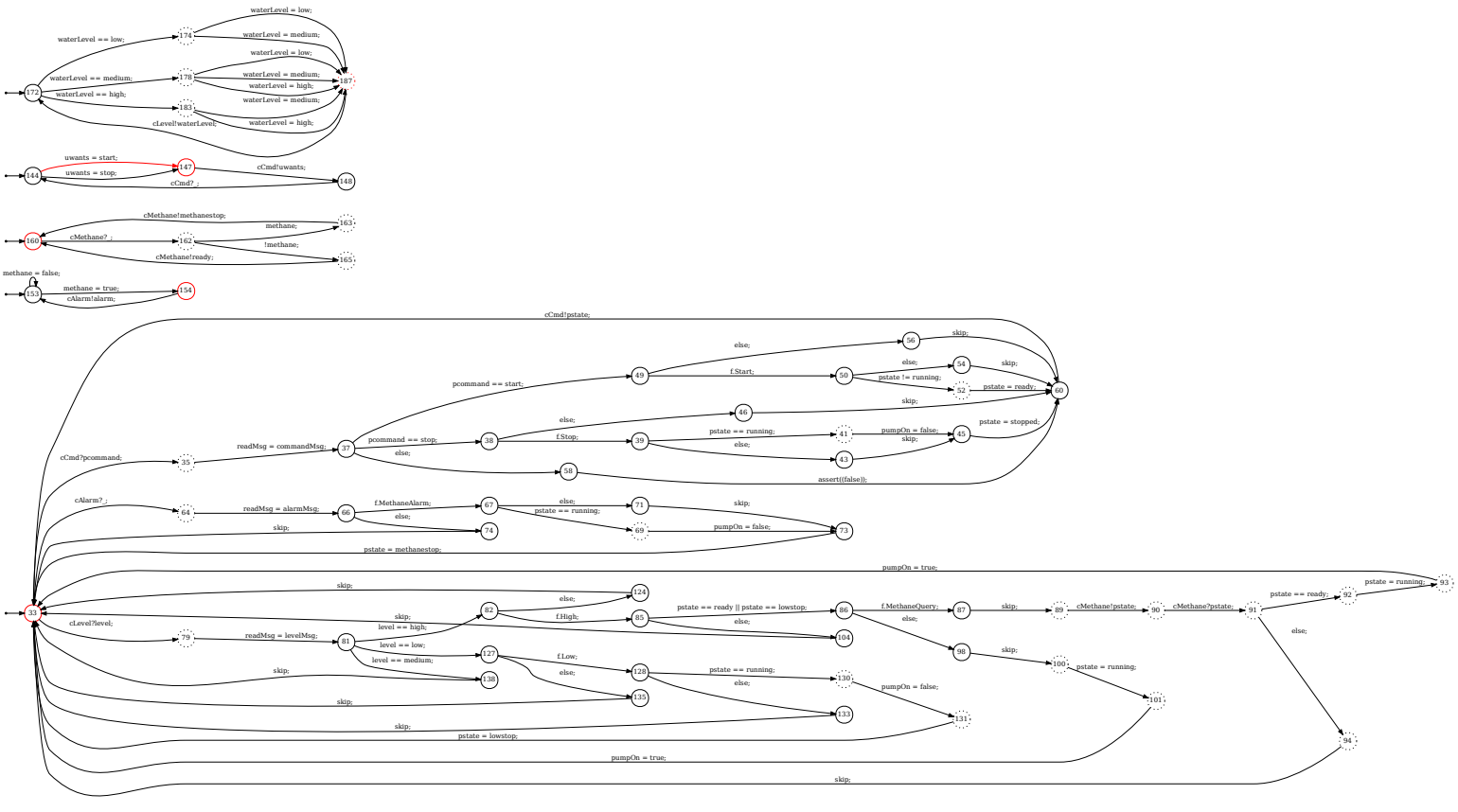
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
39
f.Stop;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
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skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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skip;
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cMethane!pstate;
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cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
98
skip;
100
pstate = running;
101
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
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pumpOn = false;
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skip;
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skip;
pstate = lowstop;
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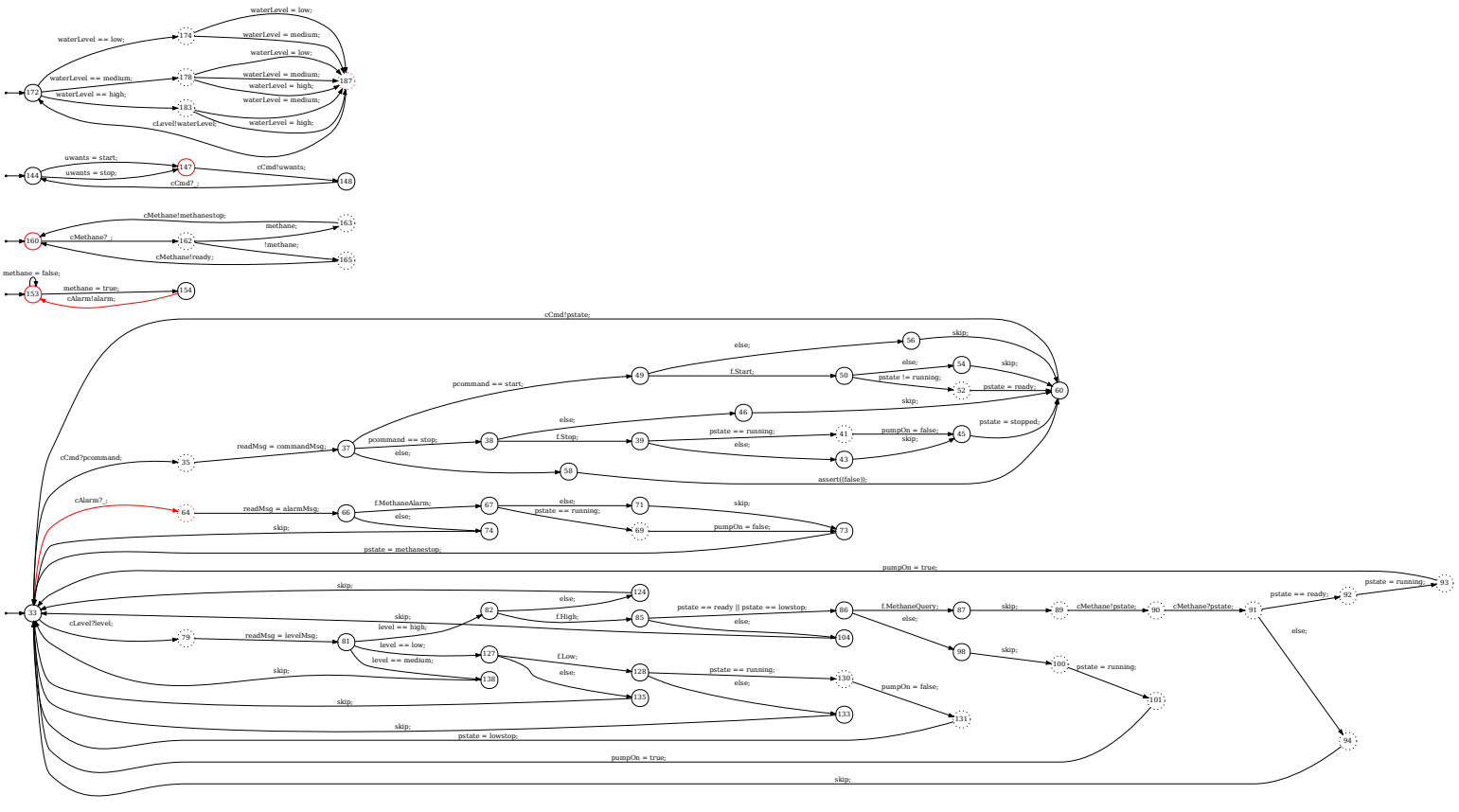
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
52
pstate = ready;
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pcommand == start;
skip;
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pstate == running;
pumpOn = false;
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pstate = stopped;
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43
cCmd?pcommand;
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readMsg = commandMsg;
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f.Stop;
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assert((false));
cAlarm? ;
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readMsg = alarmMsg;
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pstate = methanestop;
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pstate == ready || pstate == lowstop;
86
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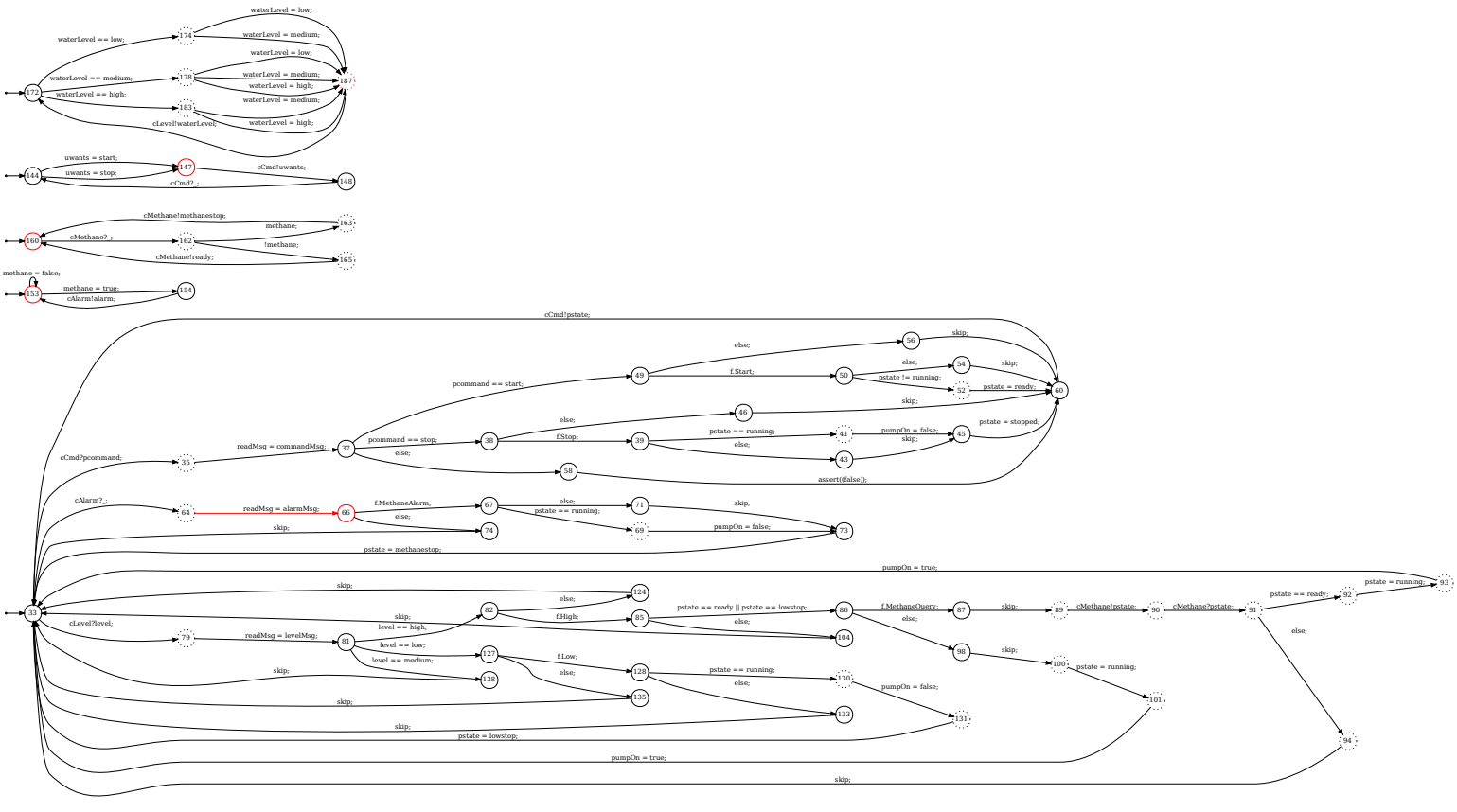
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waterLevel == low;
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waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
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52
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49
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else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
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pstate = stopped;
pumpOn = false;
skip;
f.Stop;
39
pstate == running;
else;
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38
58
assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
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level == low;
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else;
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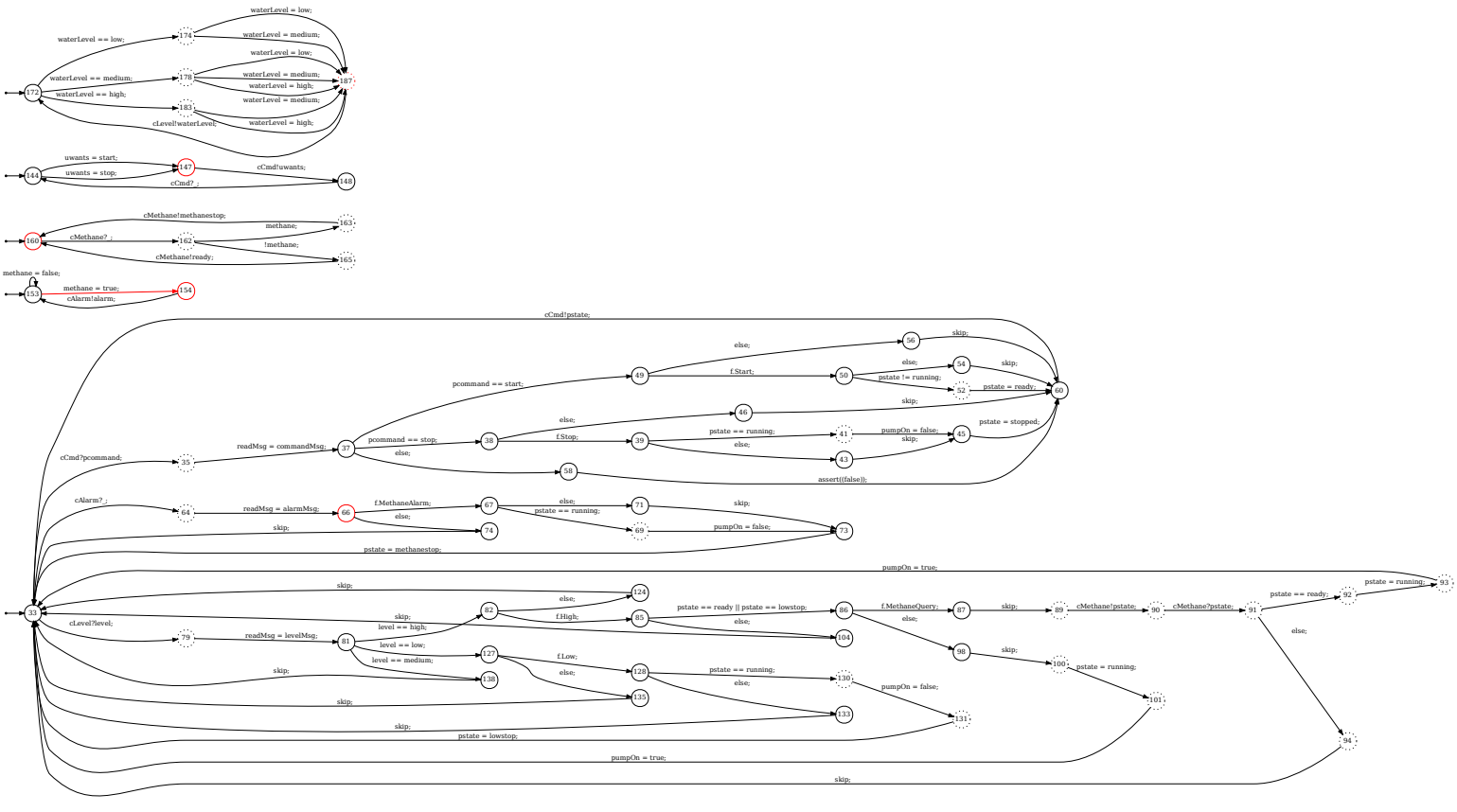
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
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148
uwants = start;
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cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
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153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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101
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124
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130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
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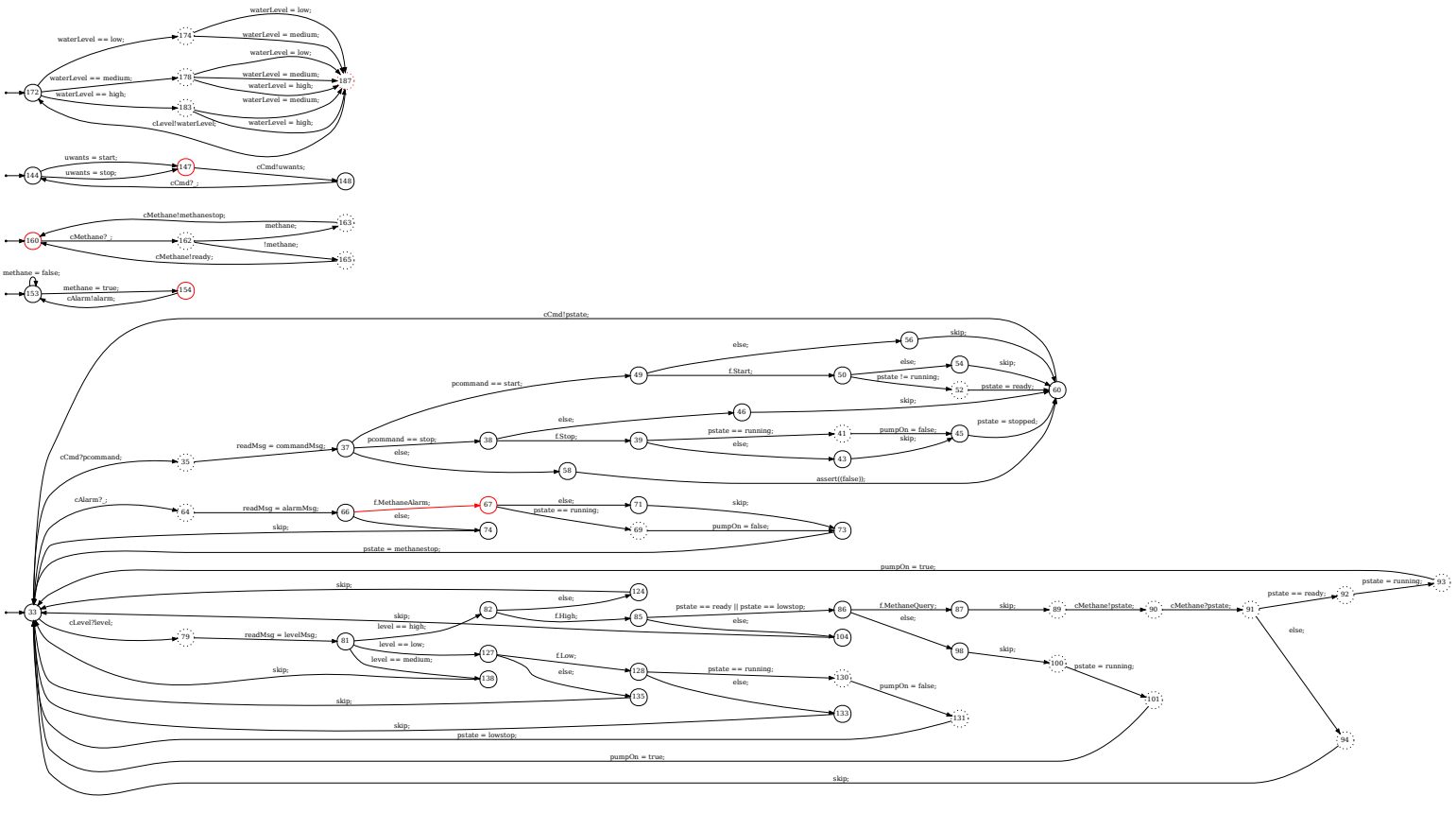
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel == low;
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waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
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147
148
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uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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skip;
else;
54
else;
skip;
49
f.Start;
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pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
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else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
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f.MethaneAlarm;
else;
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else;
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pstate == running;
skip;
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69
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pumpOn = true;
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f.High;
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cLevel?level;
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skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
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133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
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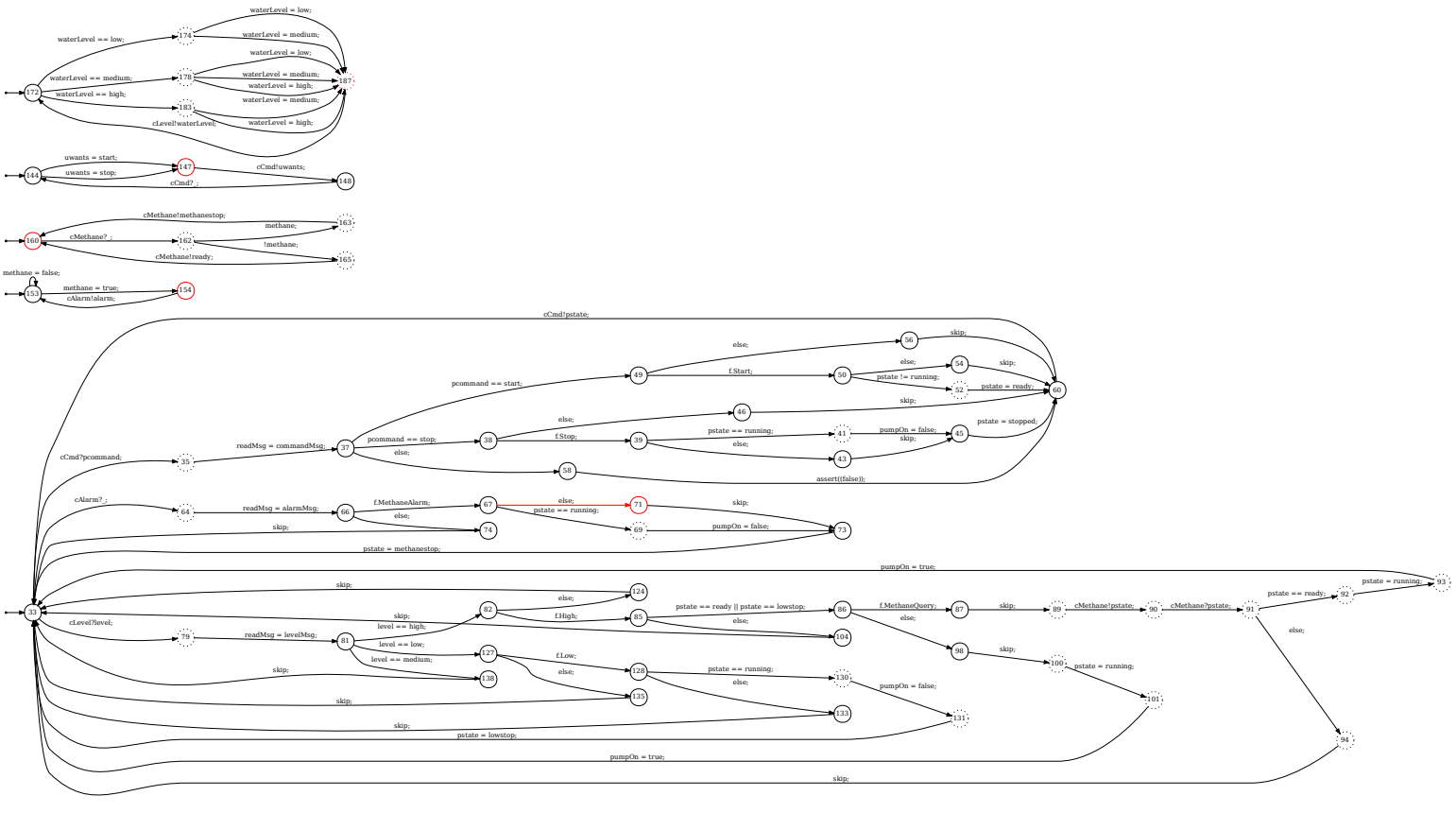
pstate = running;
101
94
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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124
127
128
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131
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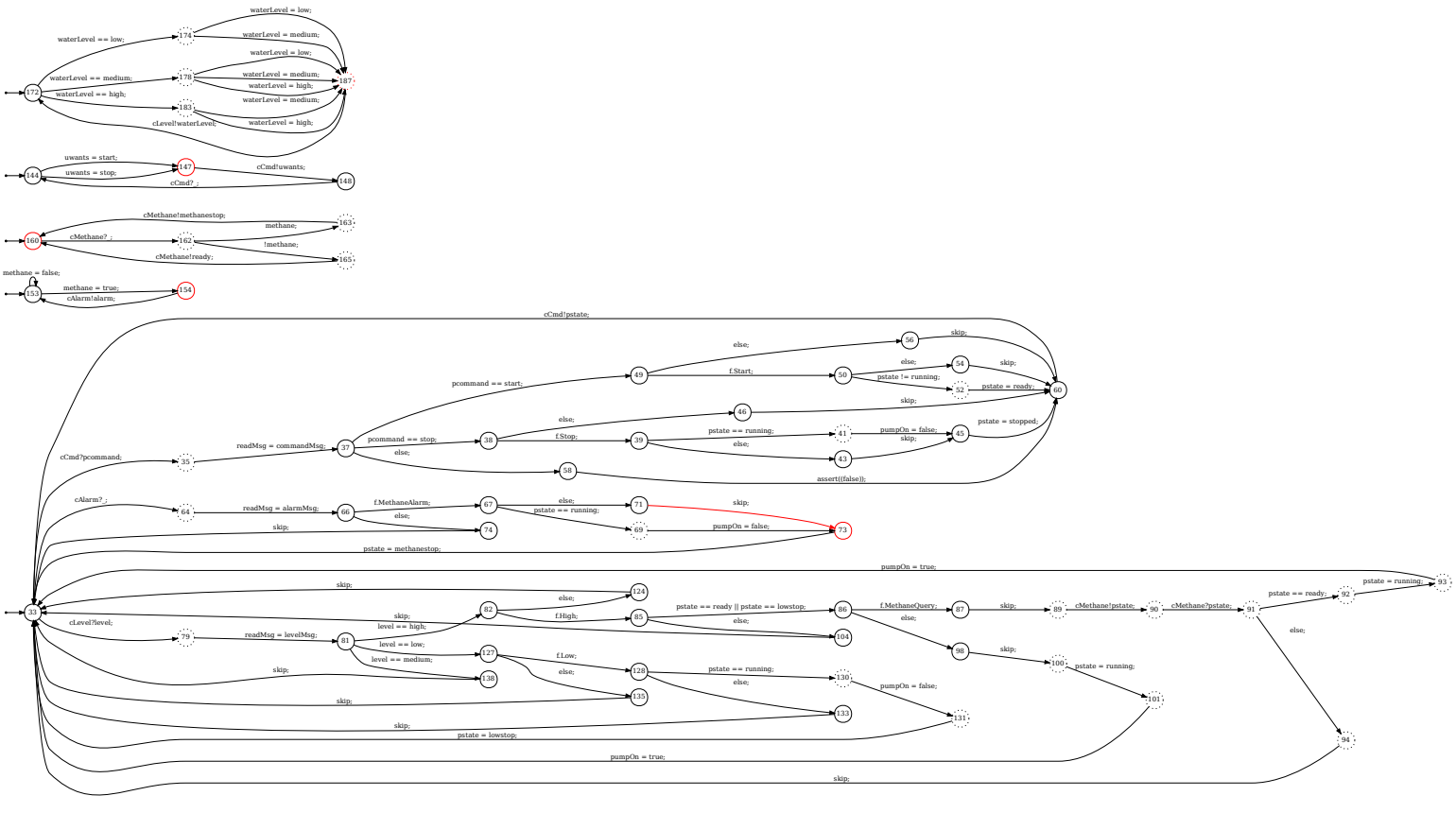
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
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60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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127
128
130
131
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135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
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pstate = ready;
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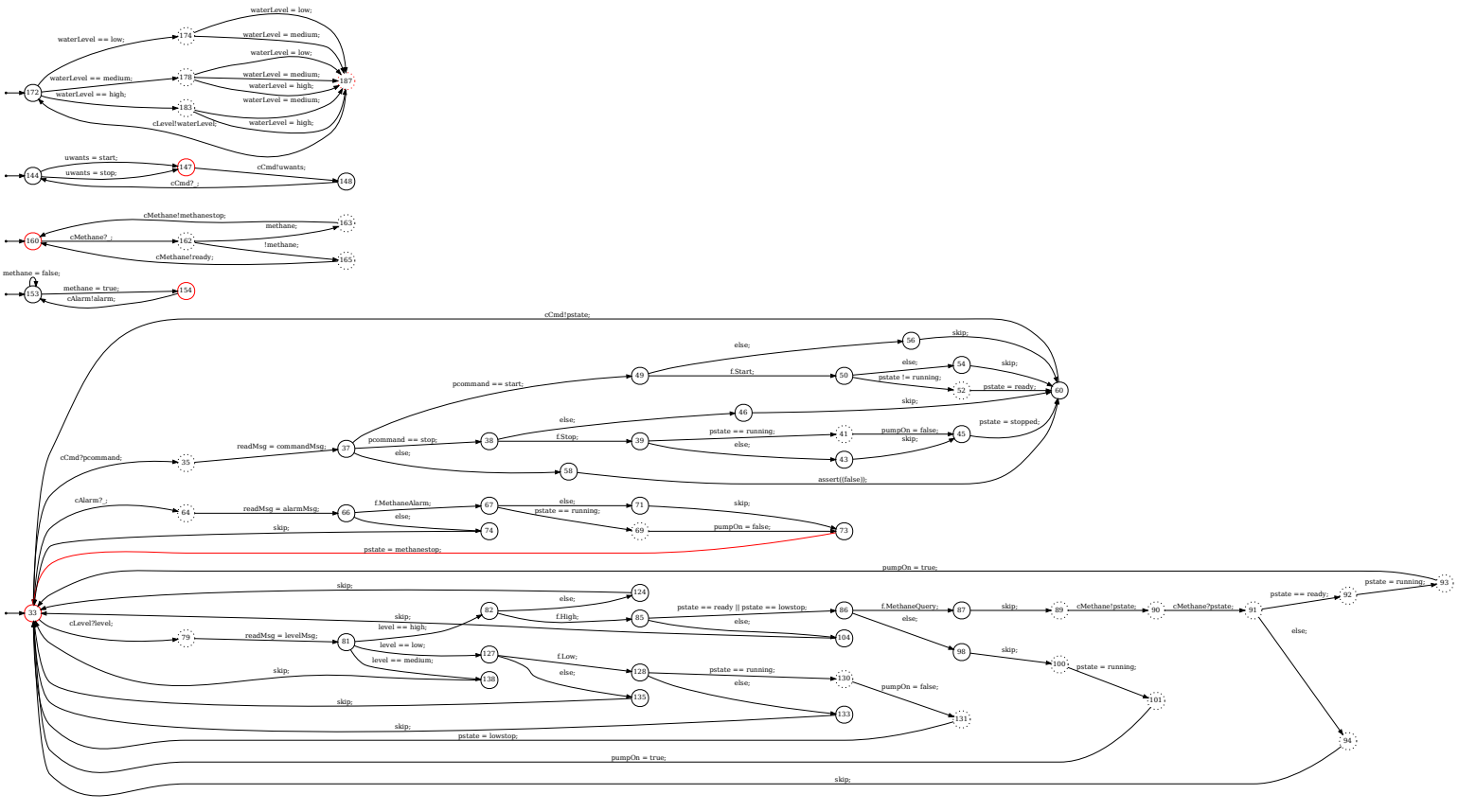
pstate = lowstop;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waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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skip;
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cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
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pstate = running;
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else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
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else;
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skip;
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skip;
pstate = lowstop;
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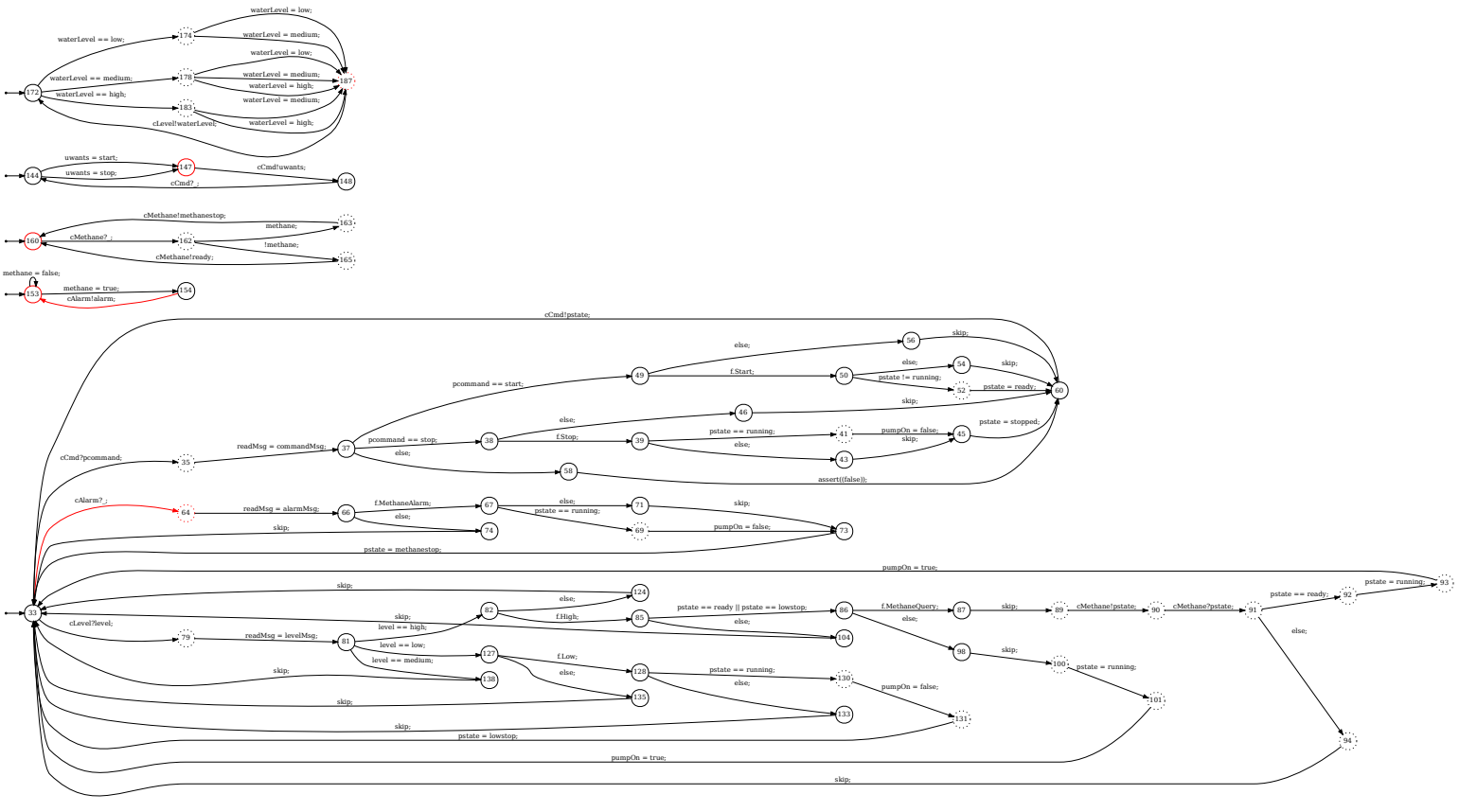
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = high;
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waterLevel = high;
144
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148
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cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
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pstate = ready;
60
pcommand == start;
skip;
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else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
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assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
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skip;
pstate == running;
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pumpOn = false;
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cMethane!pstate;
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cMethane?pstate;
91
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skip;
100
pstate = running;
101
pstate == running;
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else;
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pstate == ready;
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pstate = running;
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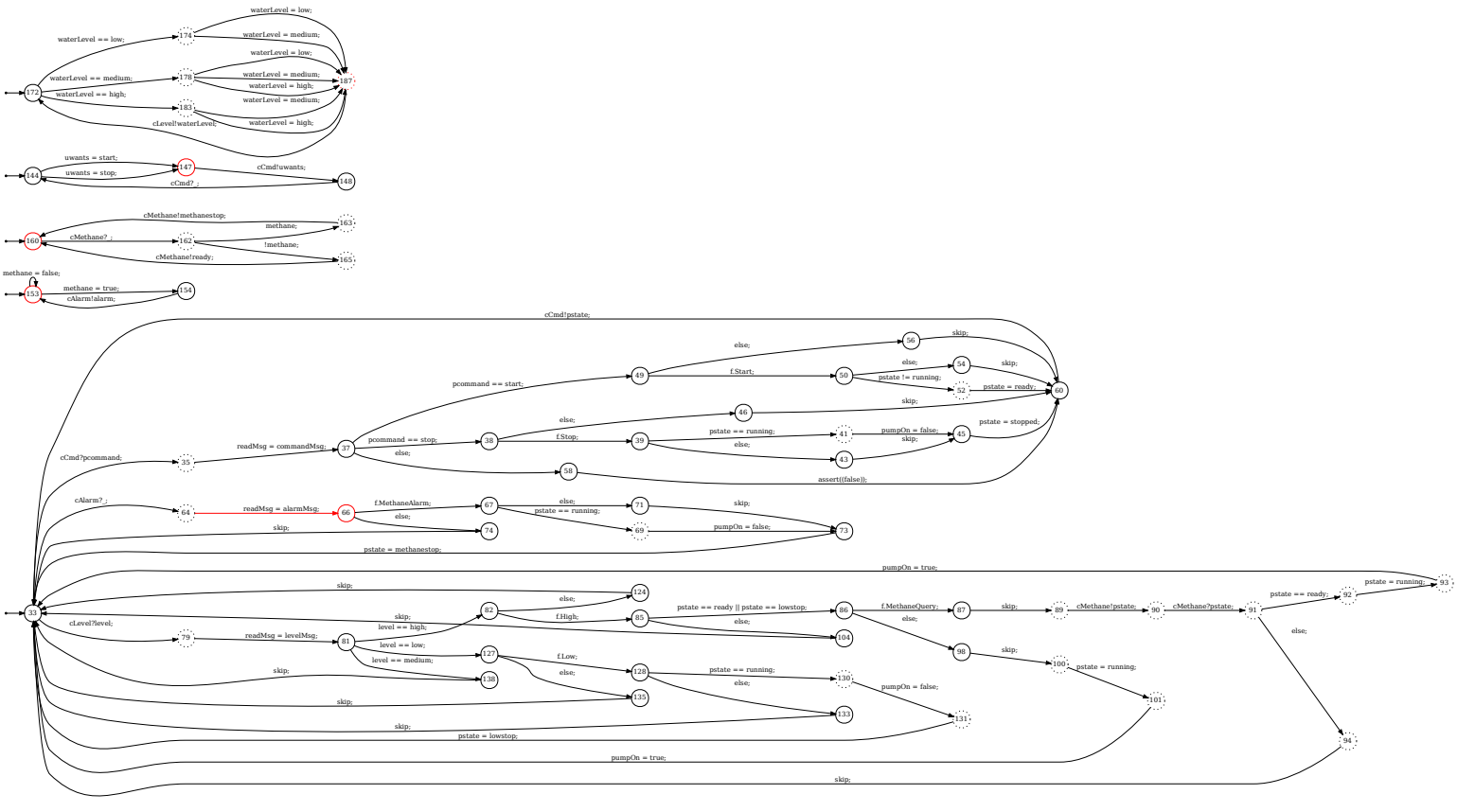
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
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uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
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methane = true;
cAlarm!alarm;
cCmd!pstate;
56
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else;
skip;
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skip;
f.Start;
pstate != running;
pstate = ready;
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skip;
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pstate = stopped;
pumpOn = false;
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f.Stop;
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pstate == running;
else;
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38
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
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level == low;
level == medium;
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f.Low;
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128
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pumpOn = false;
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pstate = running;
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138
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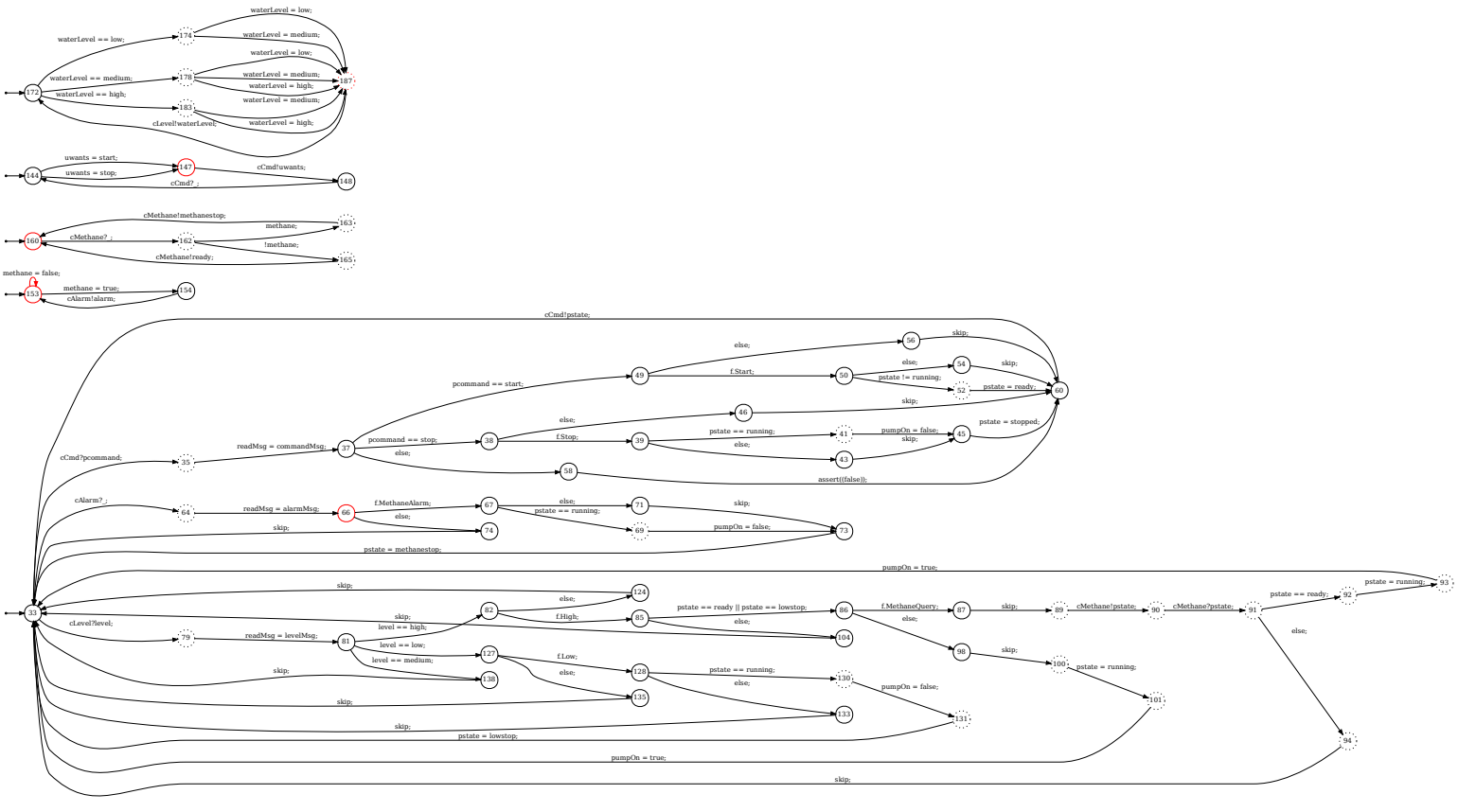
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
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waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
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148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
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165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
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methane = true;
cAlarm!alarm;
cCmd!pstate;
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else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
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45
pstate = stopped;
pstate == running;
pumpOn = false;
f.Stop;
39
else;
skip;
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58
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
pumpOn = false;
73
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pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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87
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level == high;
level == low;
level == medium;
127
f.Low;
else;
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pstate == running;
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pumpOn = false;
131
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else;
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skip;
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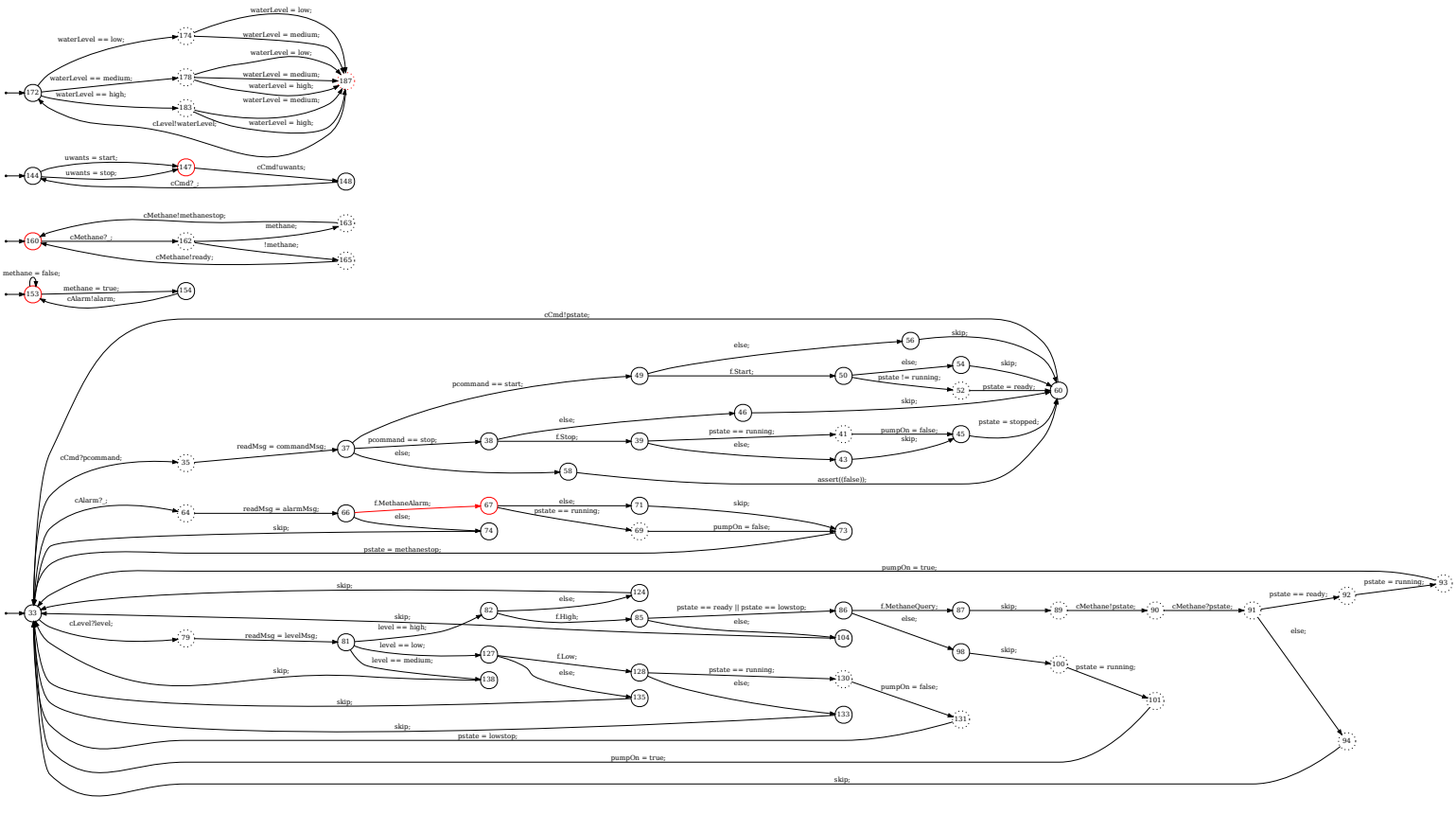
skip;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waterLevel == low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
60
skip;
46
else;
pcommand == start;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
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else;
39
f.Stop;
38
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
skip;
level == high;
f.High;
85
else;
104
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
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skip;
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skip;
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pstate = running;
101
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pstate = lowstop;
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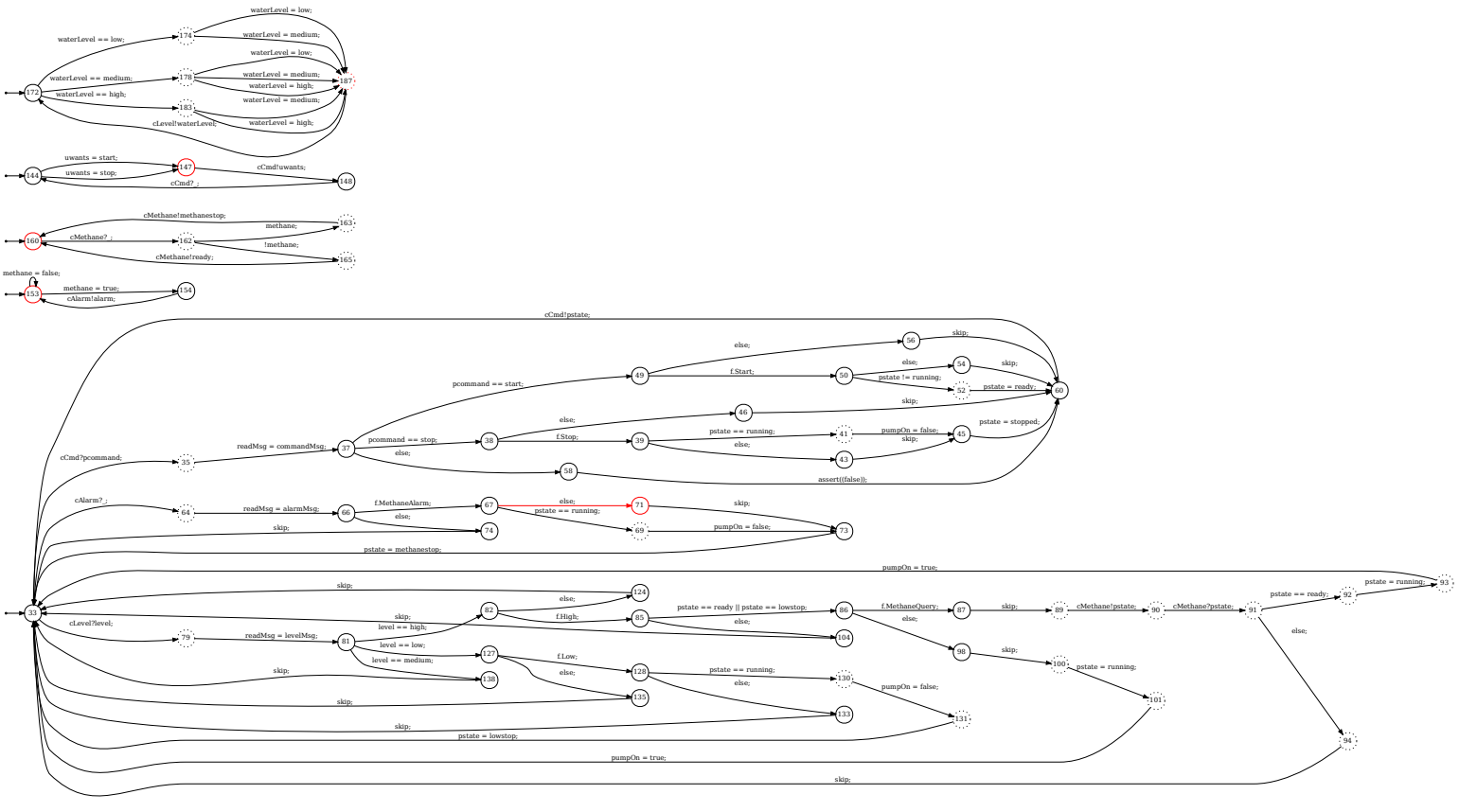
skip;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waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
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skip;
else;
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skip;
else;
49
f.Start;
50
pstate != running;
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pstate = ready;
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pcommand == start;
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38
f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
skip;
else;
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58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
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pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
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f.MethaneAlarm;
else;
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else;
pstate == running;
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skip;
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69
pumpOn = false;
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skip;
pstate = methanestop;
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skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
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else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
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skip;
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pstate = running;
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131
133
pumpOn = false;
pumpOn = true;
skip;
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skip;
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cMethane?pstate;
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else;
pstate == ready;
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pstate = running;
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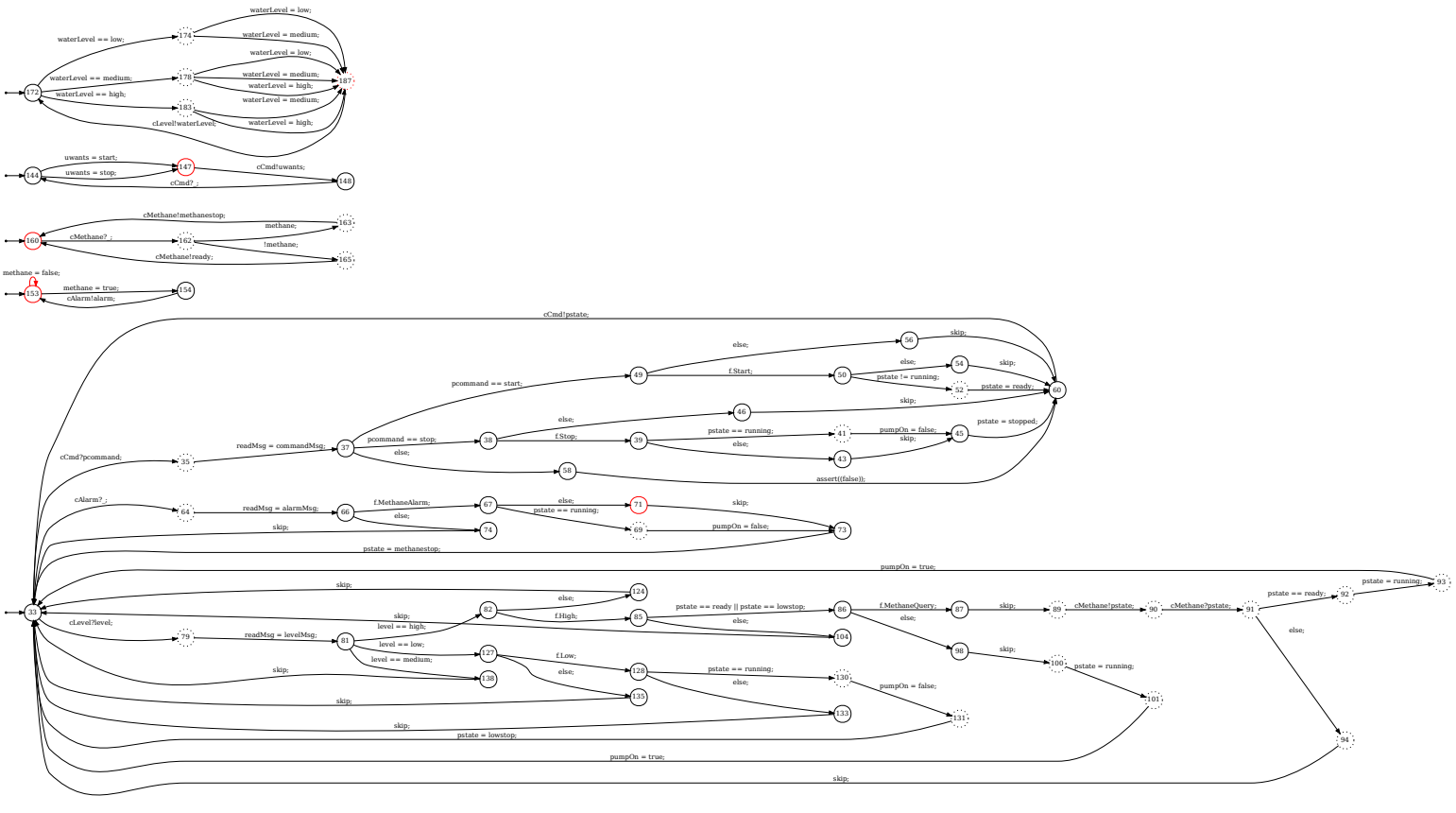
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waterLevel == low;
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waterLevel == medium;
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waterLevel = high;
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153
154
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cAlarm!alarm;
cCmd!pstate;
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skip;
else;
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else;
skip;
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50
pstate != running;
52
pstate = ready;
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f.Start;
pcommand == start;
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skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
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cCmd?pcommand;
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readMsg = commandMsg;
37
pcommand == stop;
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assert((false));
cAlarm? ;
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readMsg = alarmMsg;
66
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86
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pstate = running;
93
else;
cLevel?level;
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readMsg = levelMsg;
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f.High;
else;
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else;
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level == low;
level == medium;
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f.Low;
else;
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else;
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pumpOn = false;
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skip;
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pstate = running;
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skip;
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skip;
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131
skip;
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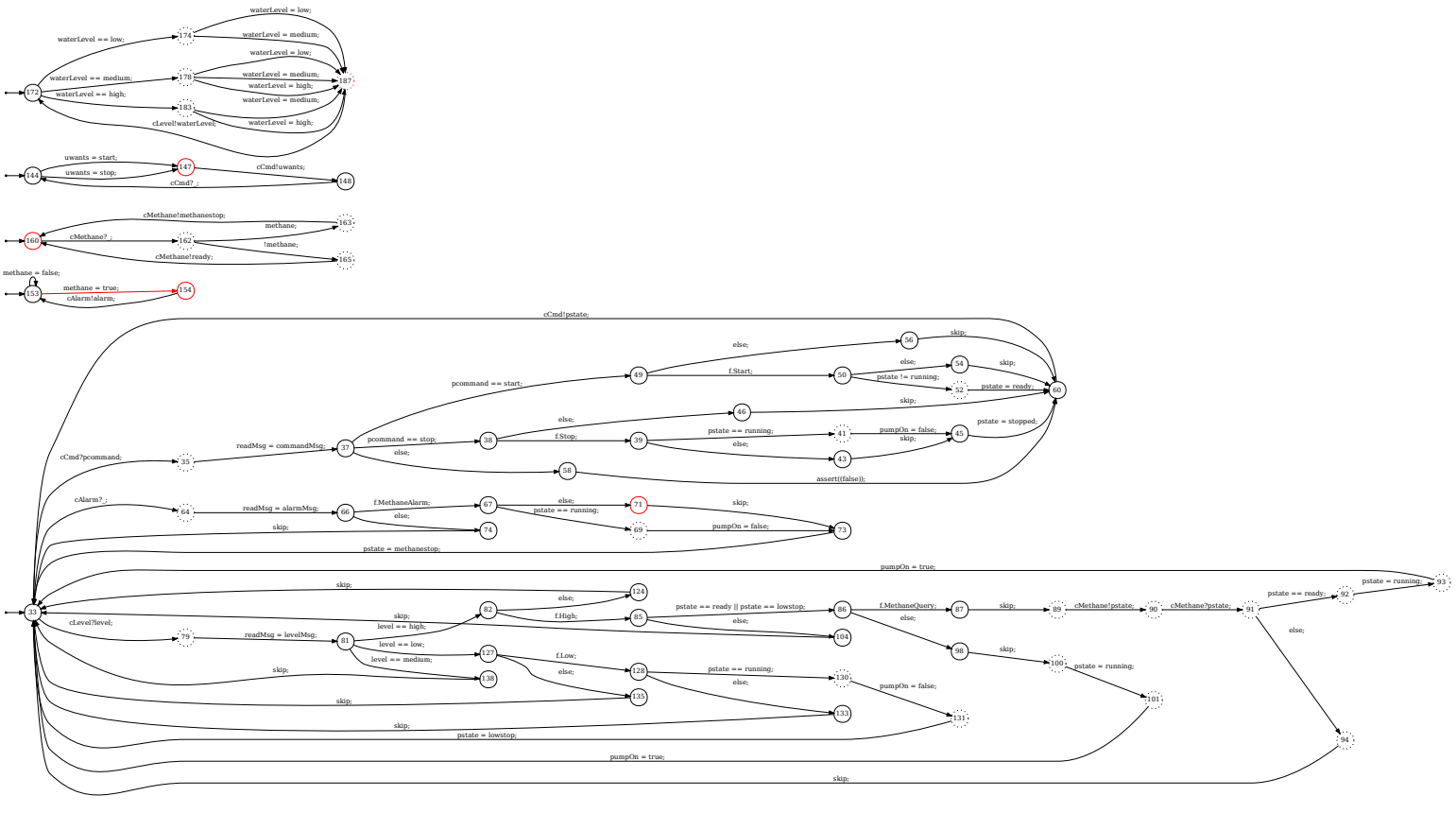
pumpOn = true;
skip;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174
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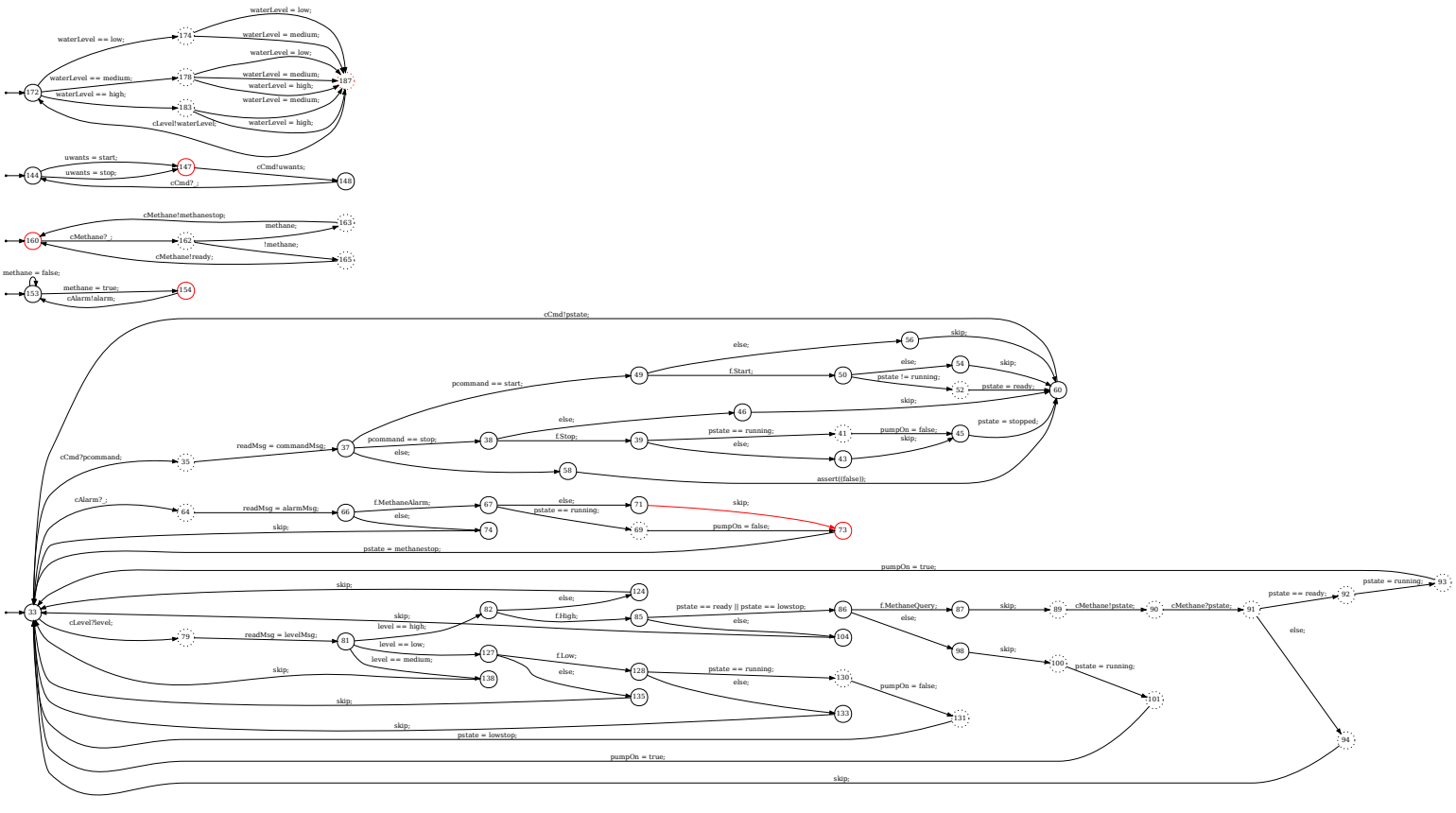
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
38
f.Stop;
39
else;
skip;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
else;
135
133
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
130
else;
pumpOn = false;
131
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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100
101
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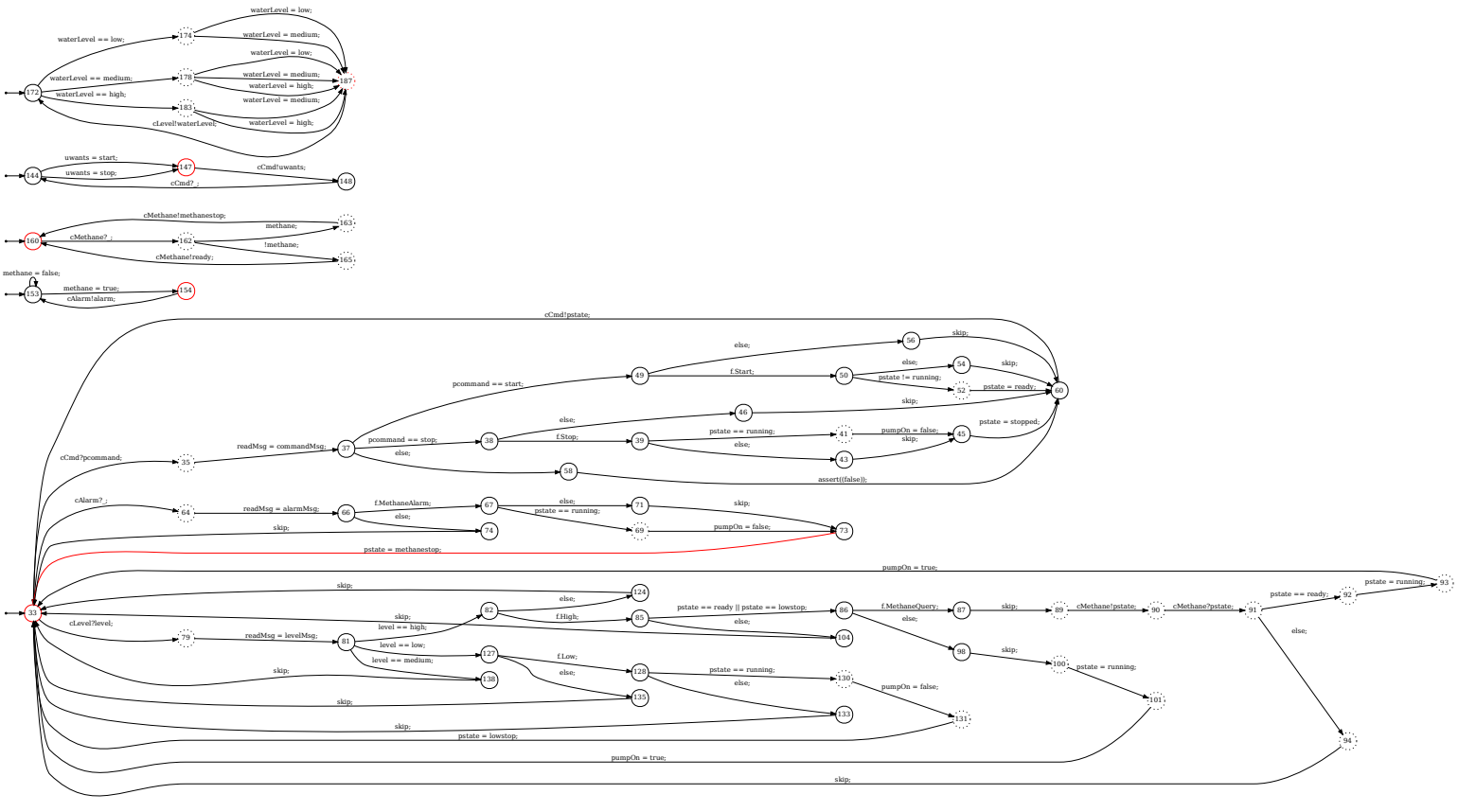
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel = medium;
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172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
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level == low;
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f.Low;
else;
98
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100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
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else;
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skip;
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skip;
pstate = lowstop;
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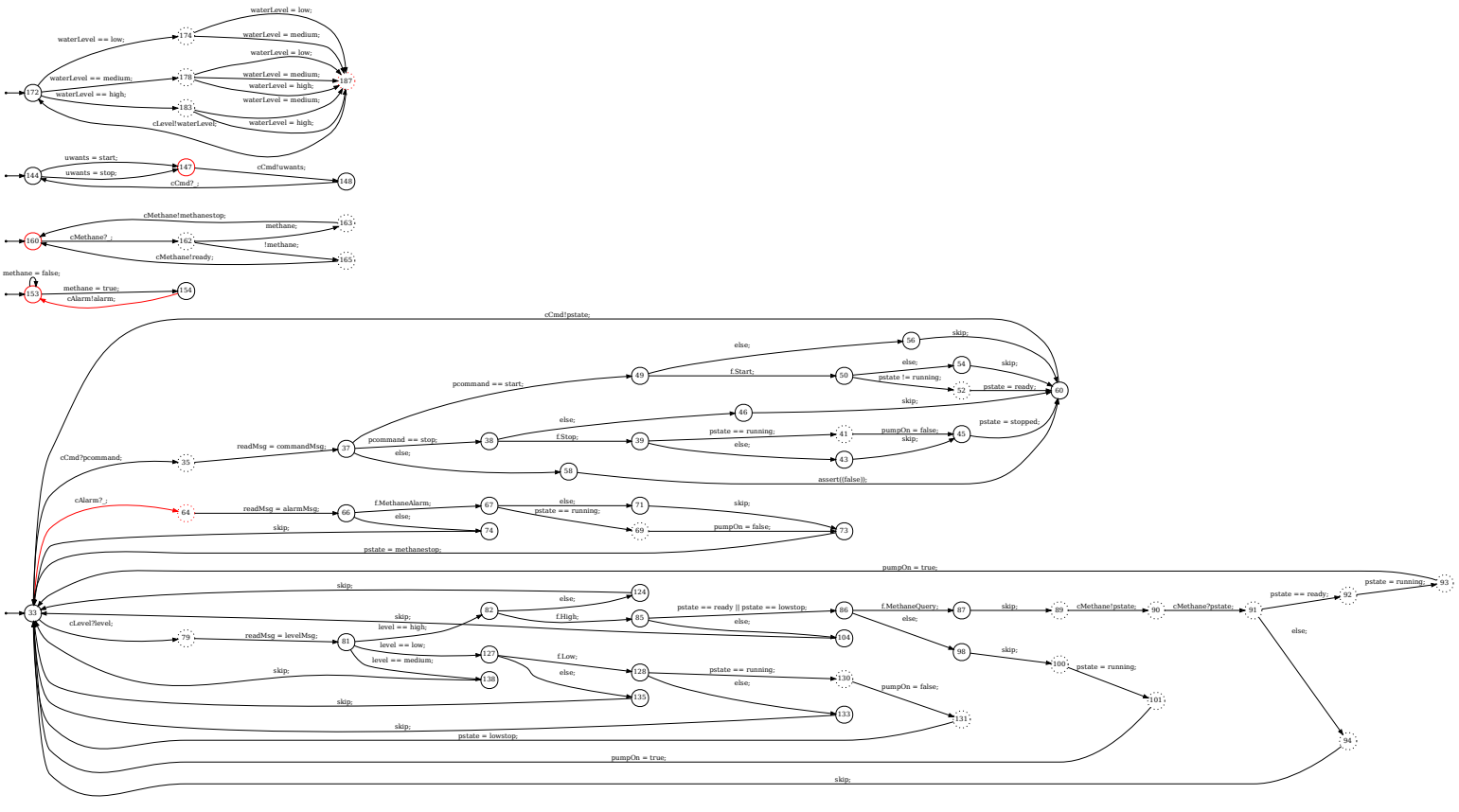
skip;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187
waterLevel == low;
waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
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waterLevel = high;
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148
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cMethane? ;
methane;
!methane;
cMethane!ready;
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153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
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41
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pumpOn = false;
45
pstate = stopped;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
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pumpOn = false;
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skip;
pstate = methanestop;
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f.Low;
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138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
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pstate = lowstop;
pumpOn = true;
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pstate == ready;
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pstate = running;
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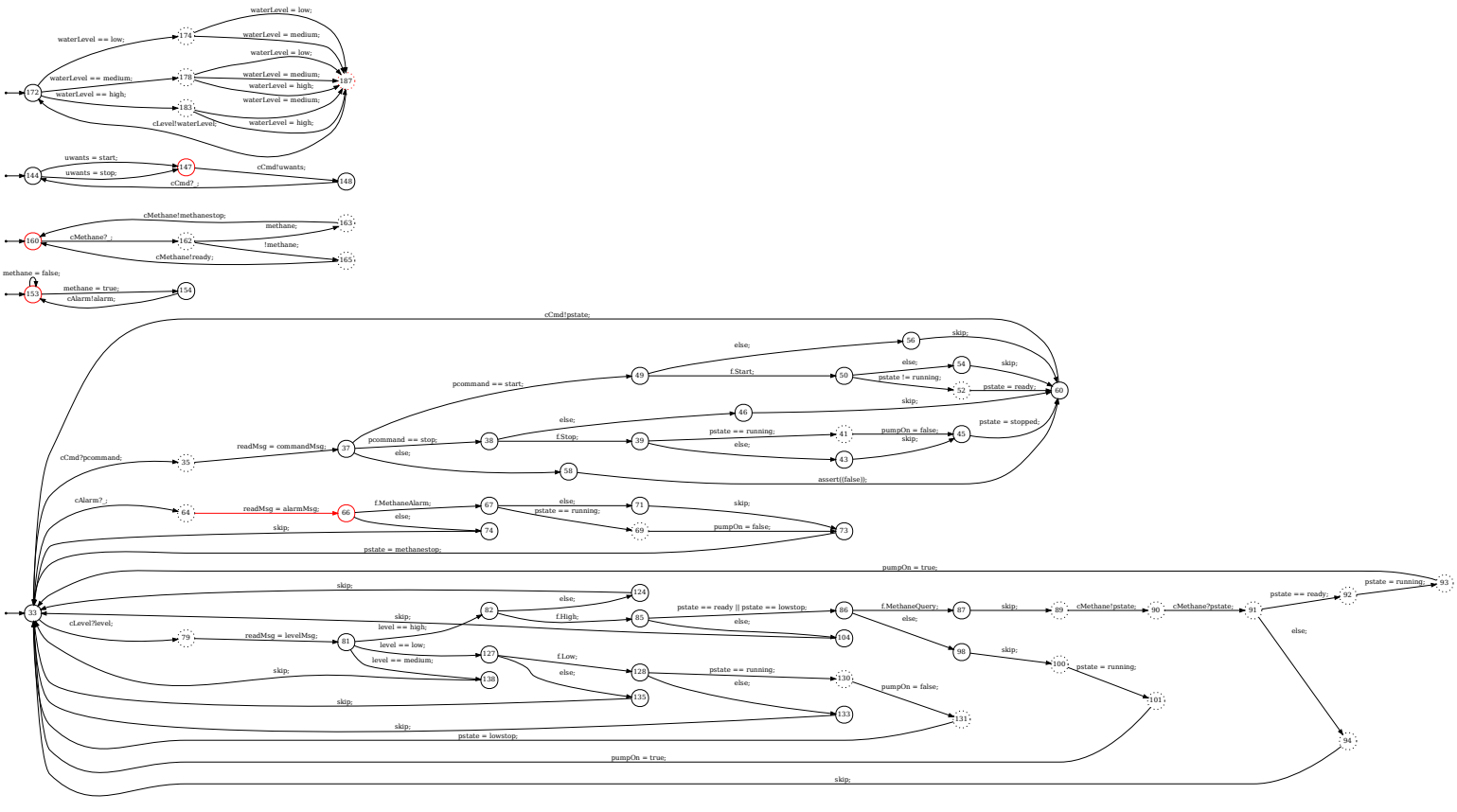
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
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cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
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52
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49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pumpOn = false;
skip;
f.Stop;
39
pstate == running;
else;
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38
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
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skip;
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else;
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f.High;
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pstate == ready || pstate == lowstop;
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f.MethaneQuery;
else;
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cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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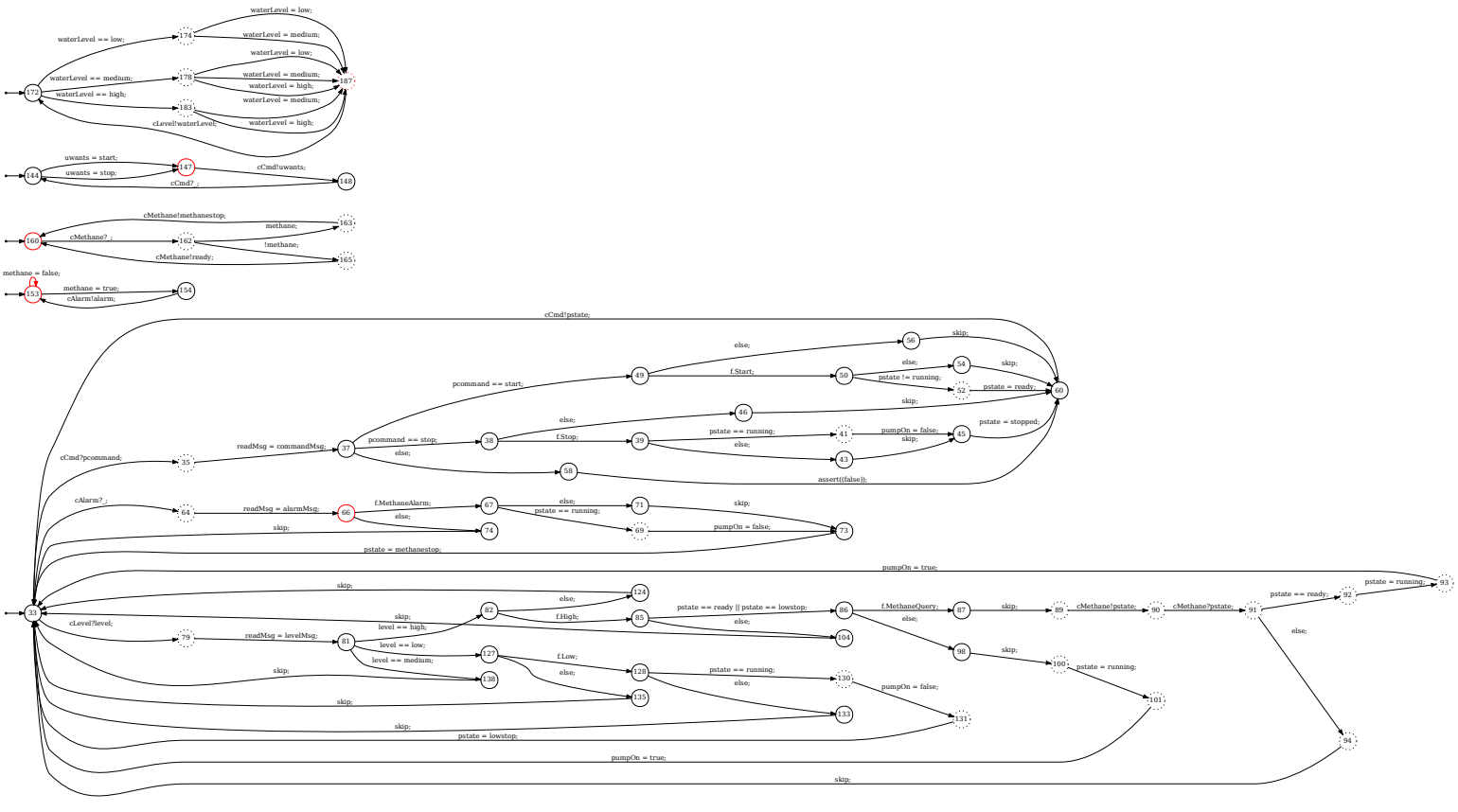
skip;
100
pstate = running;
101
94
138
135
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
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cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pstate == running;
pumpOn = false;
f.Stop;
39
else;
skip;
43
38
37
35
58
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
else;
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skip;
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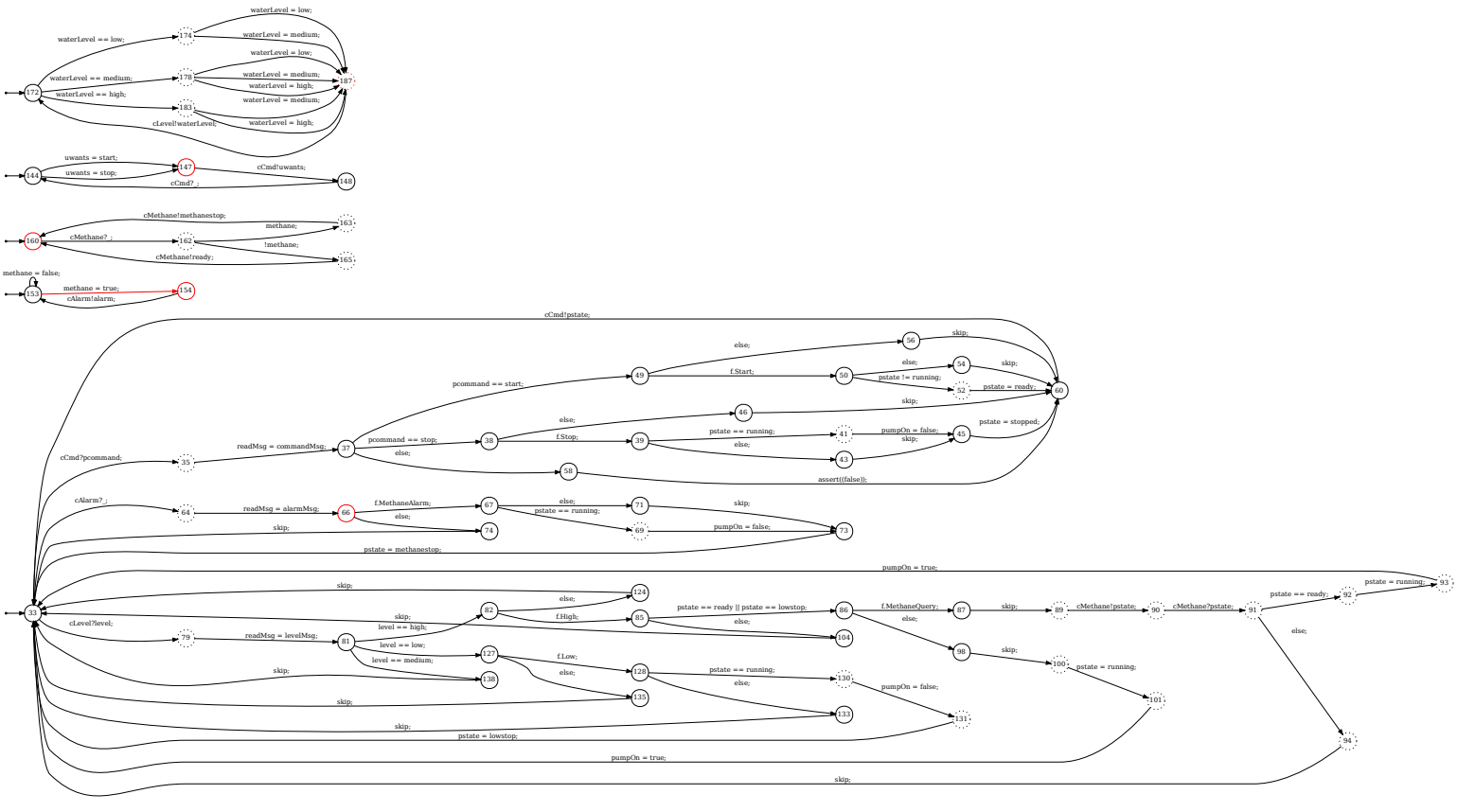
pstate = running;
101
94
138
135
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
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41
43
45
46
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60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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101
104
124
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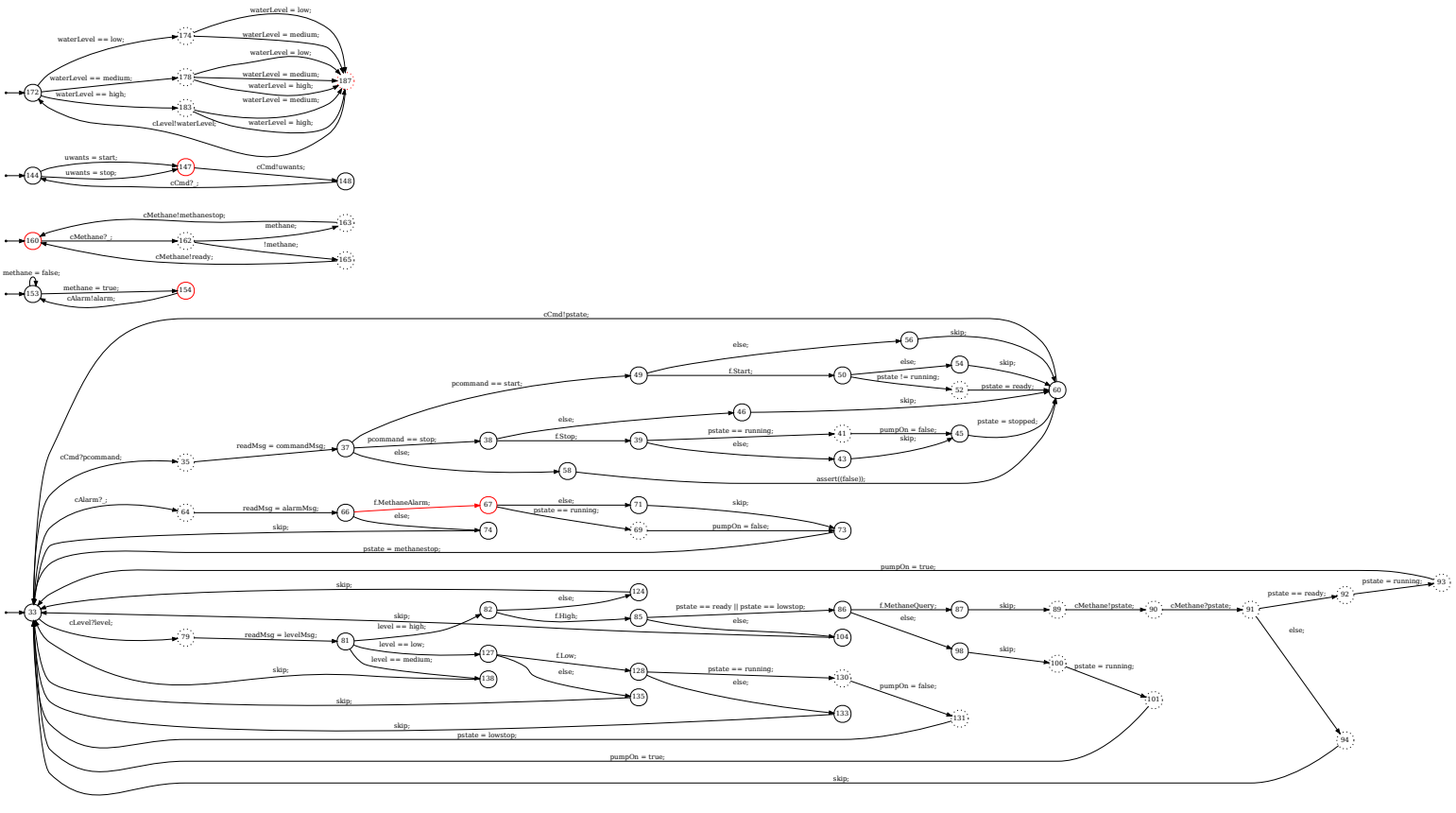
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
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pstate = running;
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else;
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skip;
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pstate == running;
else;
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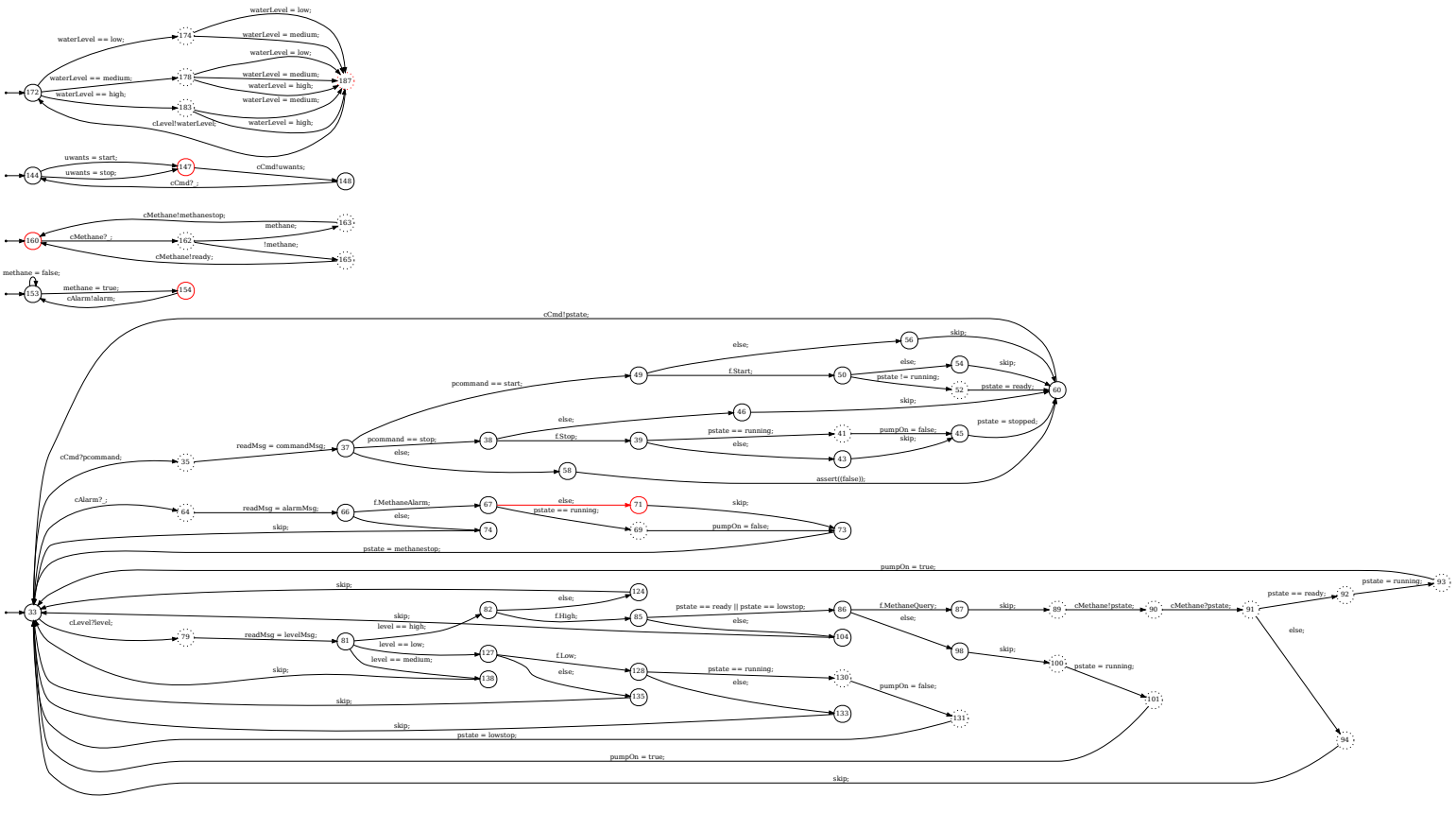
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
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128
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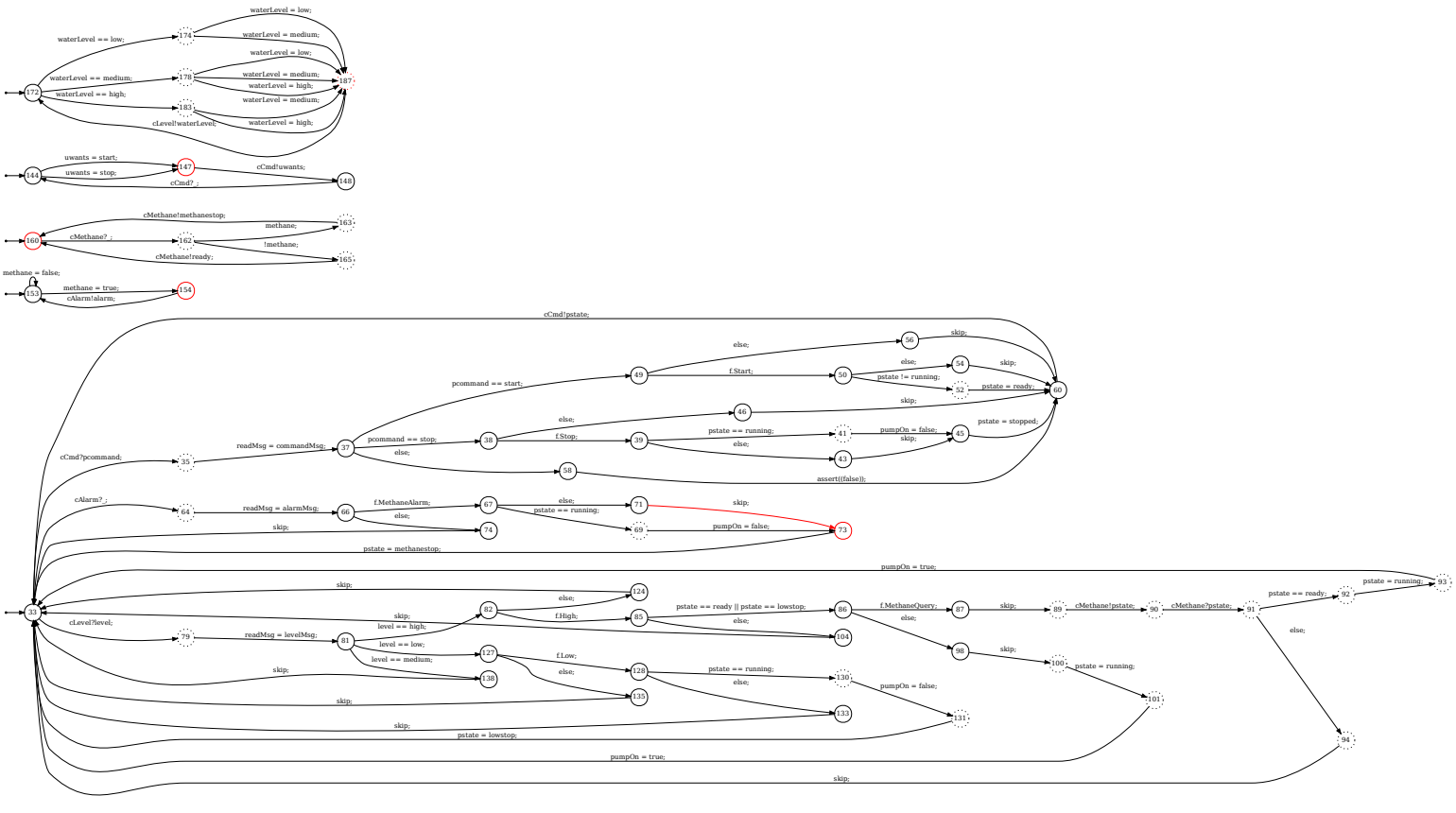
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
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37
38
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56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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81
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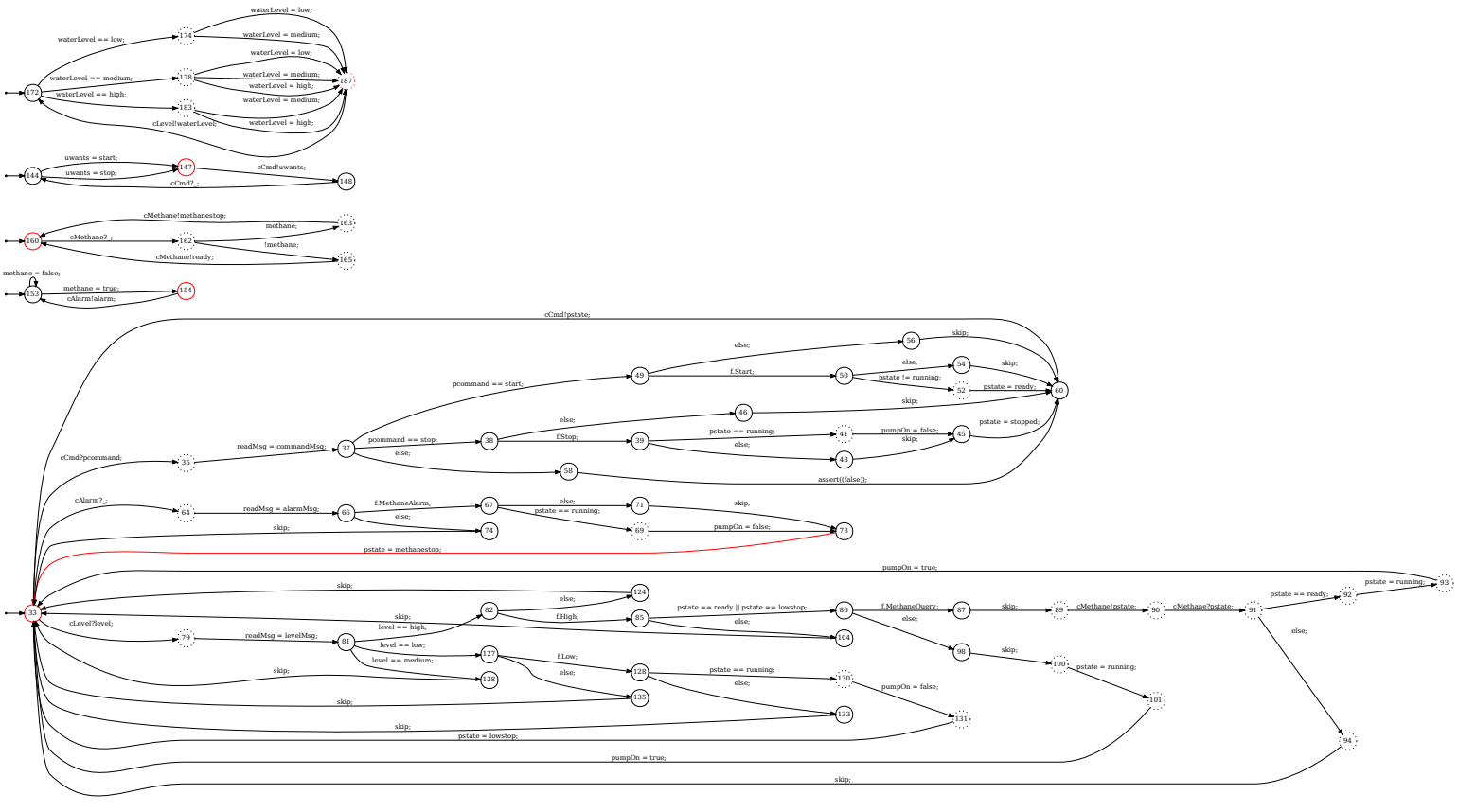
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;


waterLevel = low;
waterLevel == low;
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waterLevel = medium;
waterLevel = low;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
130
else;
pumpOn = false;
101
skip;
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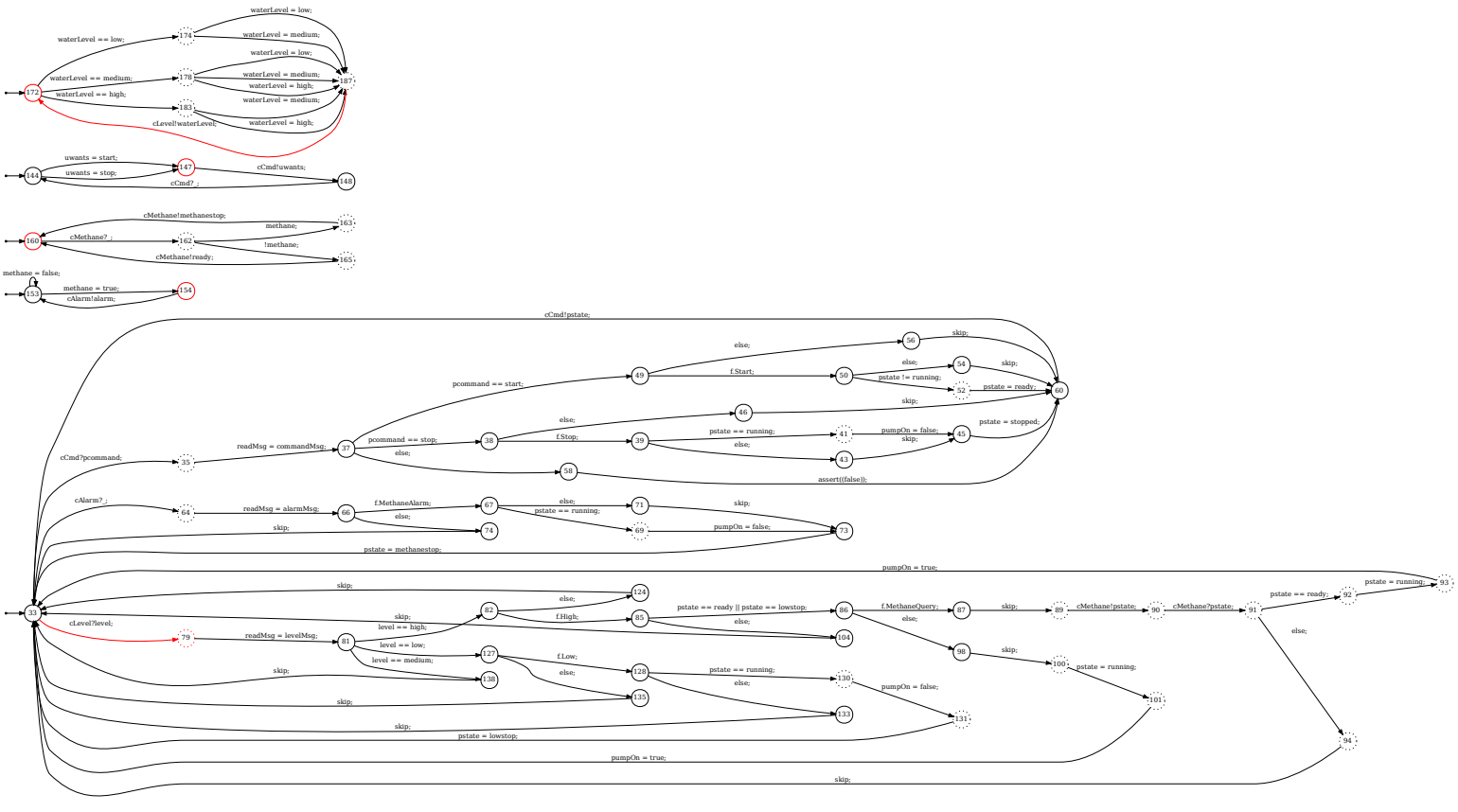
133
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
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124
else;
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f.High;
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104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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pstate == ready;
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pstate = running;
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94
pumpOn = false;
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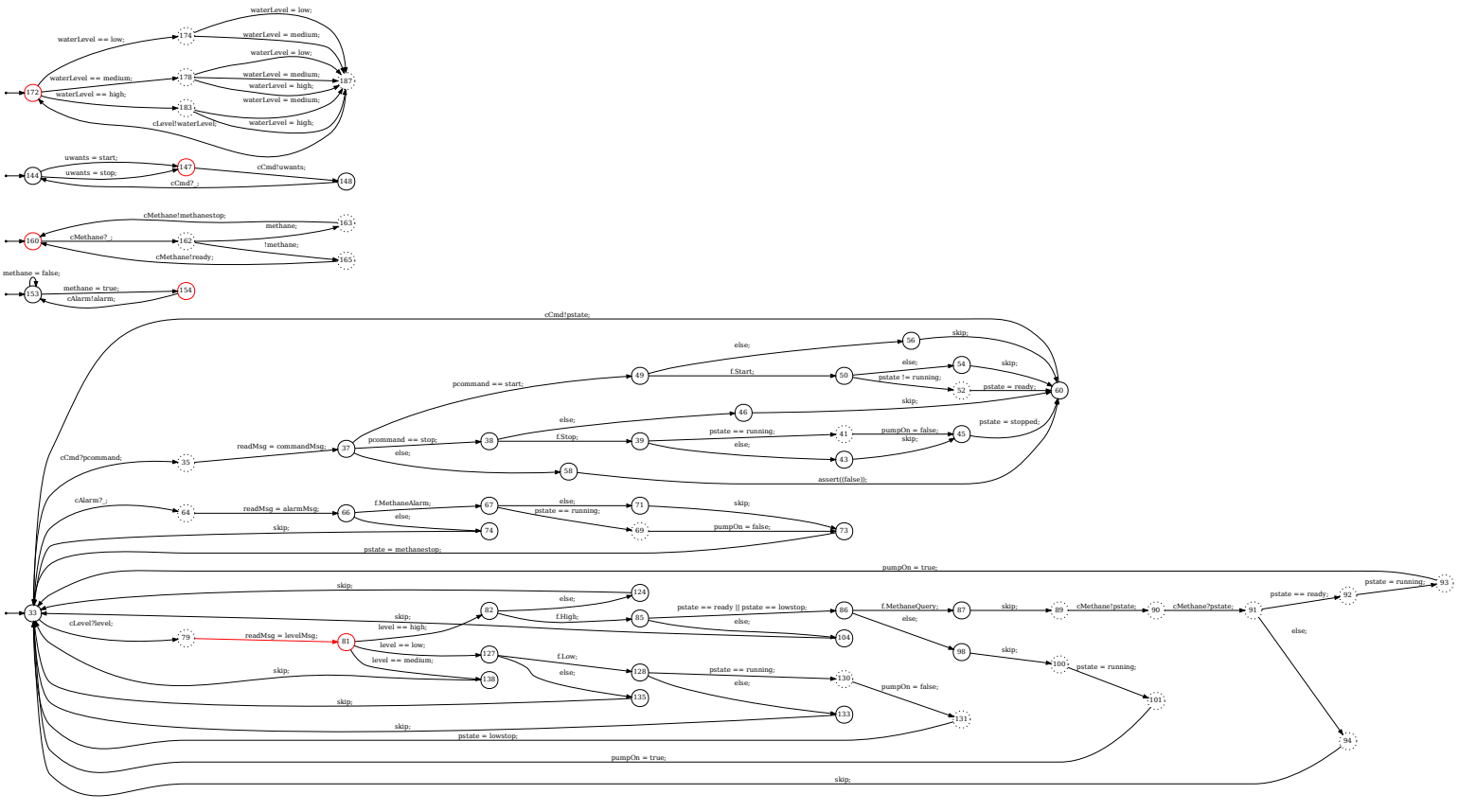
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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
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cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
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104
cLevel?level;
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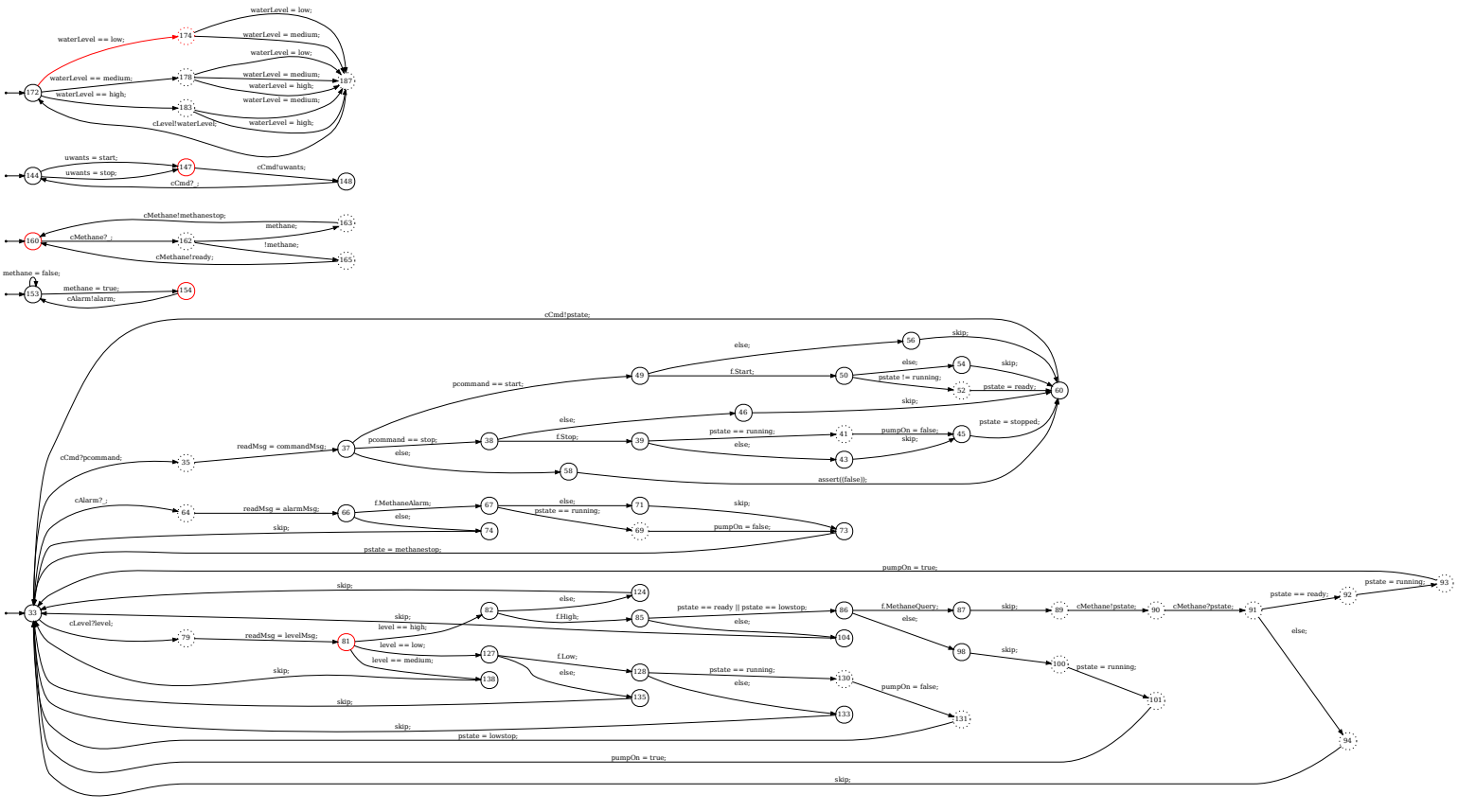
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
130
else;
pstate == running;
pumpOn = false;
133
131
pumpOn = true;
skip;
pstate == ready;
92
pstate = running;
93
94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waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
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41
43
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58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
64
66
67
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
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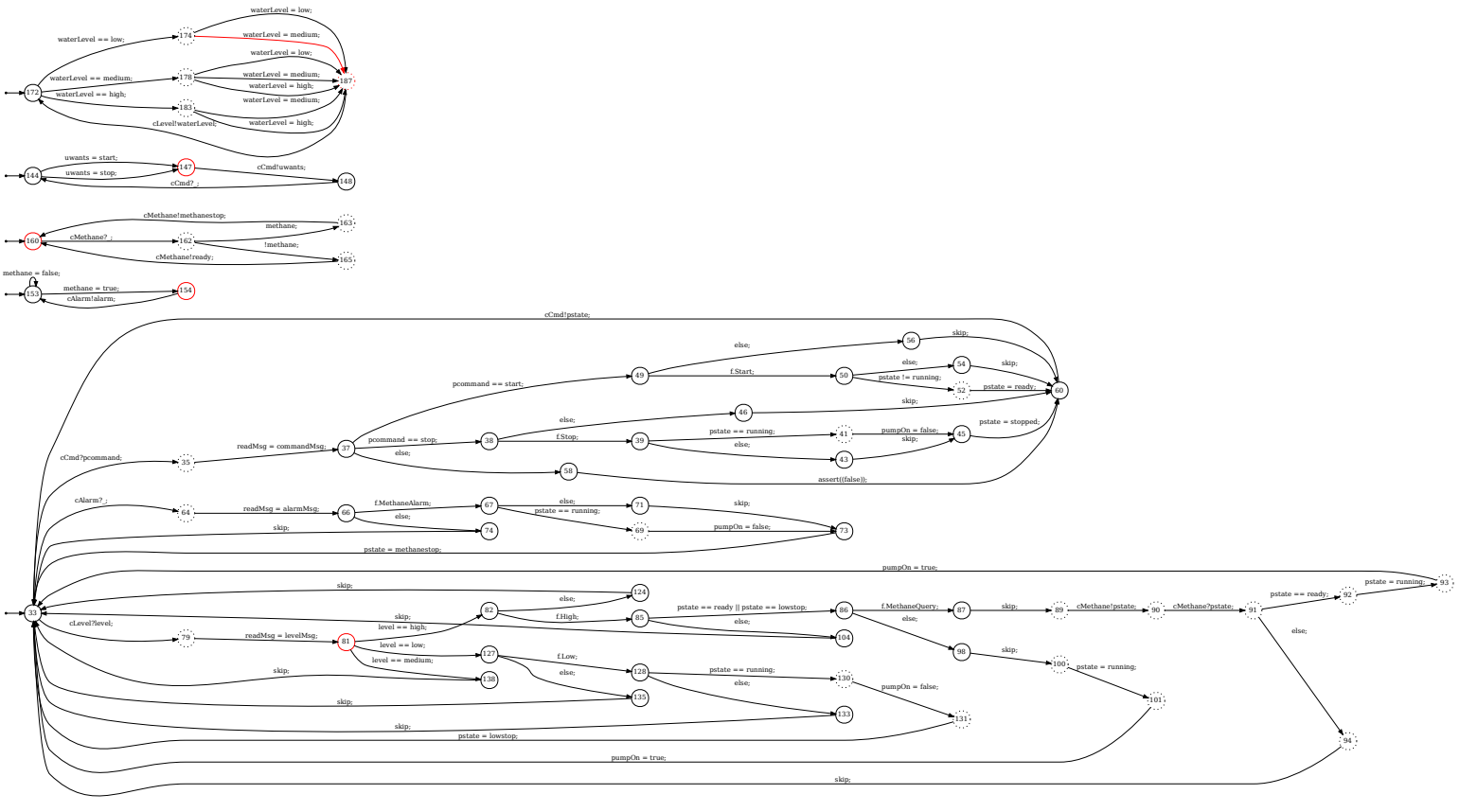
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate == ready;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
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41
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50
52
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58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
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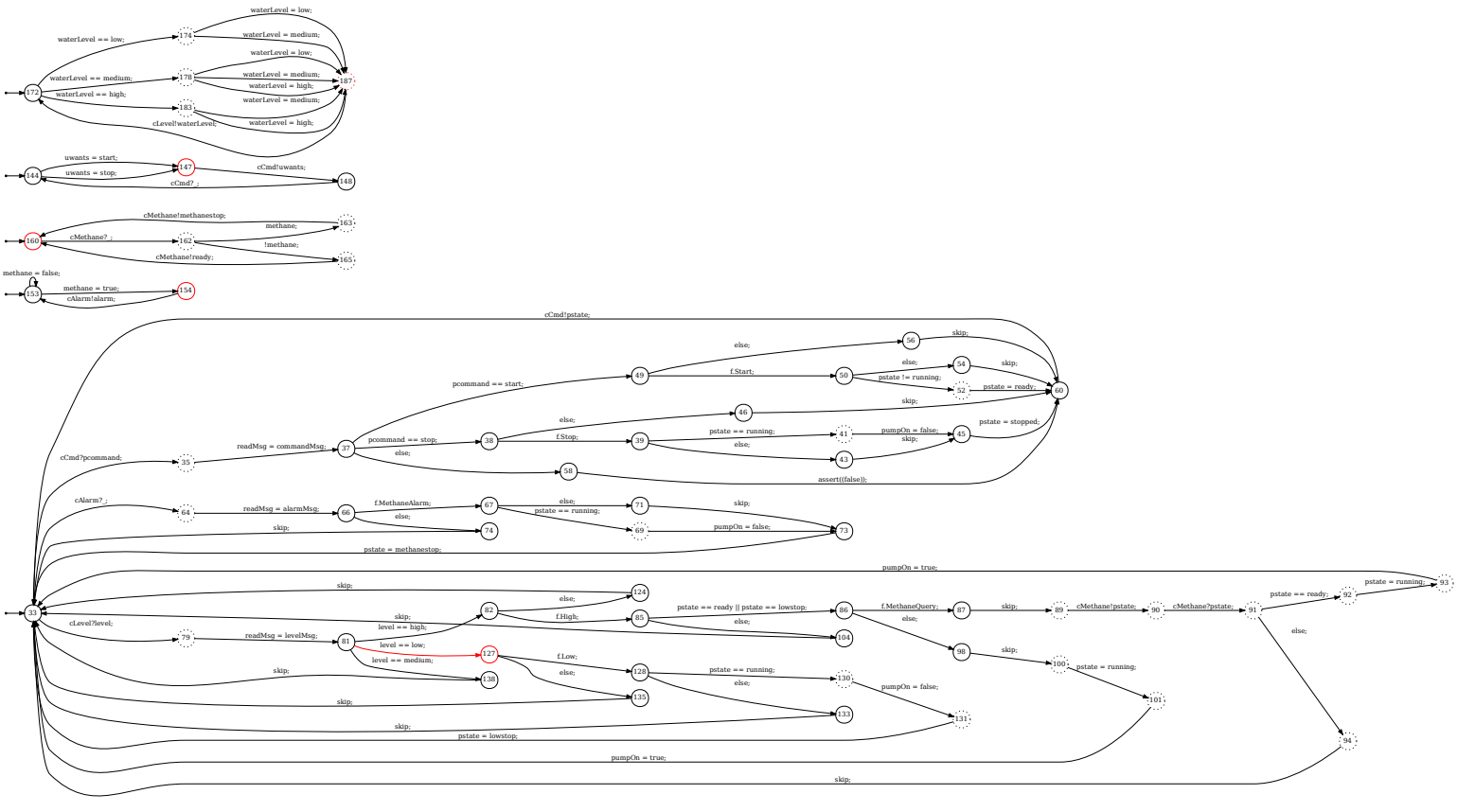
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
skip;
else;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pumpOn = true;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waterLevel = low;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
cMethane!methanestop;
methane;
cMethane? ;
!methane;
cMethane!ready;
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
skip;
pcommand == start;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
else;
pstate = stopped;
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
skip;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
else;
skip;
pstate = running;
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else;
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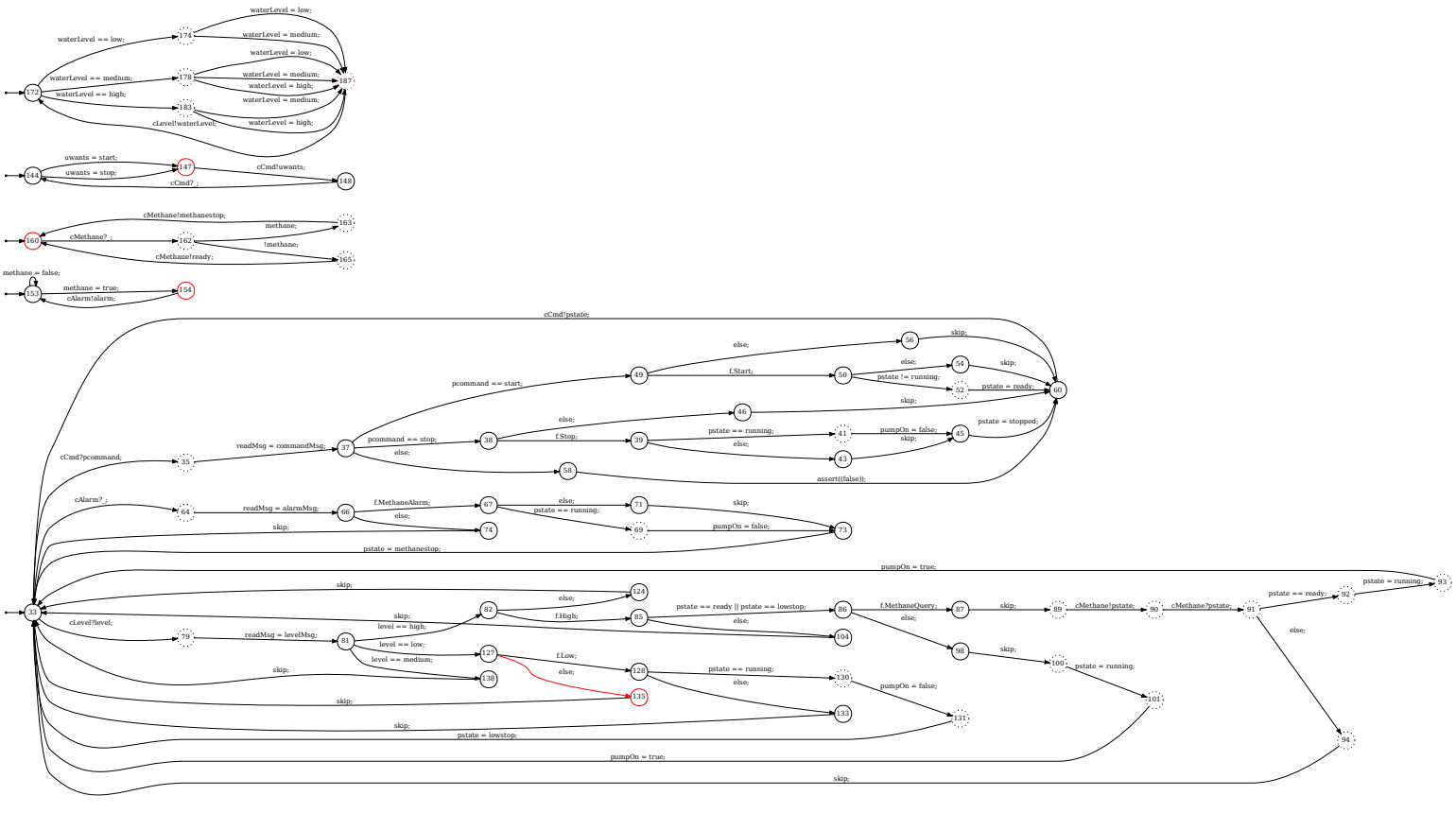
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
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104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
pstate == running;
else;
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pumpOn = false;
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skip;
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pstate = running;
101
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skip;
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pstate = lowstop;
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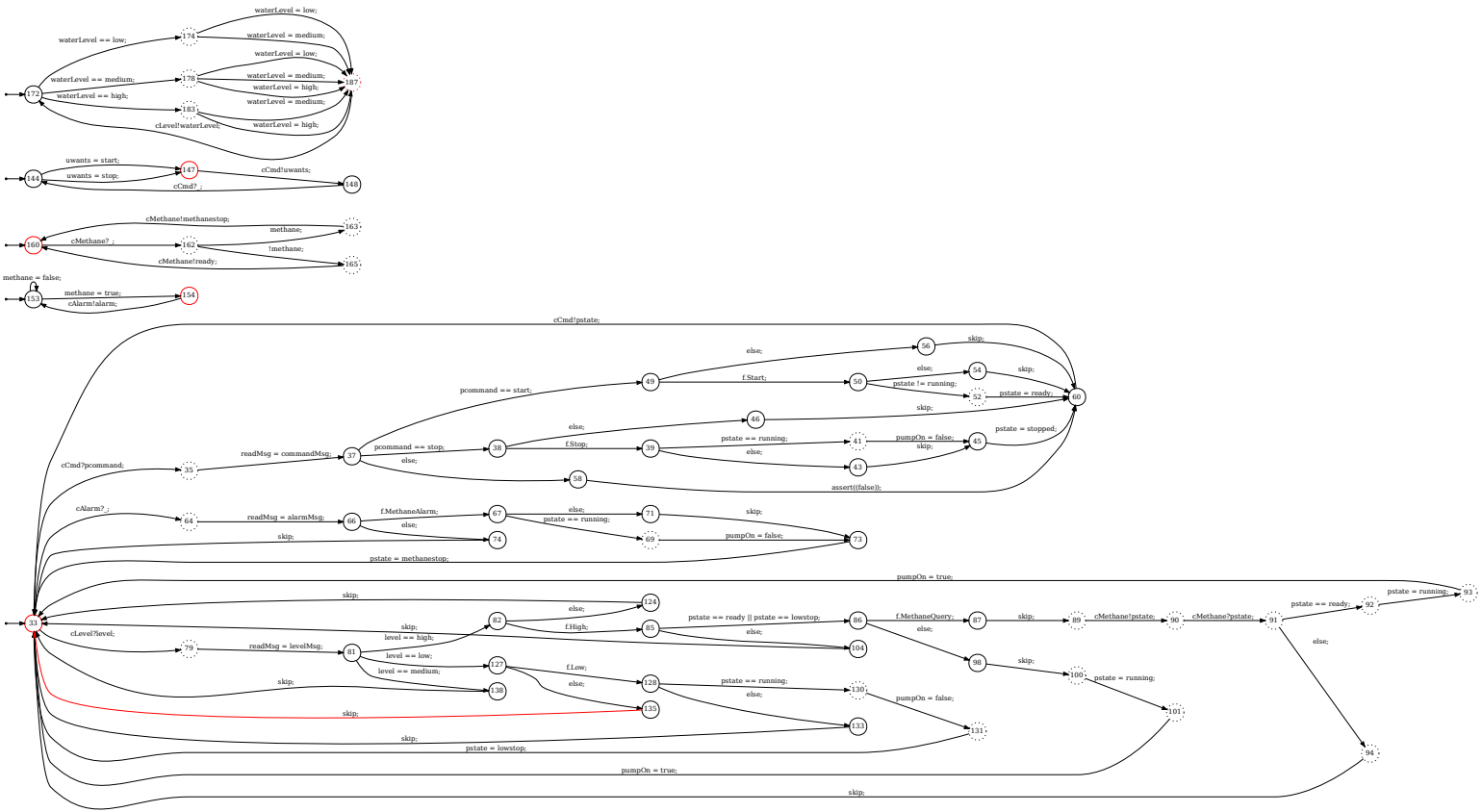
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waterLevel == low;
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cAlarm? ;
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135
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f.MethaneQuery;
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skip;
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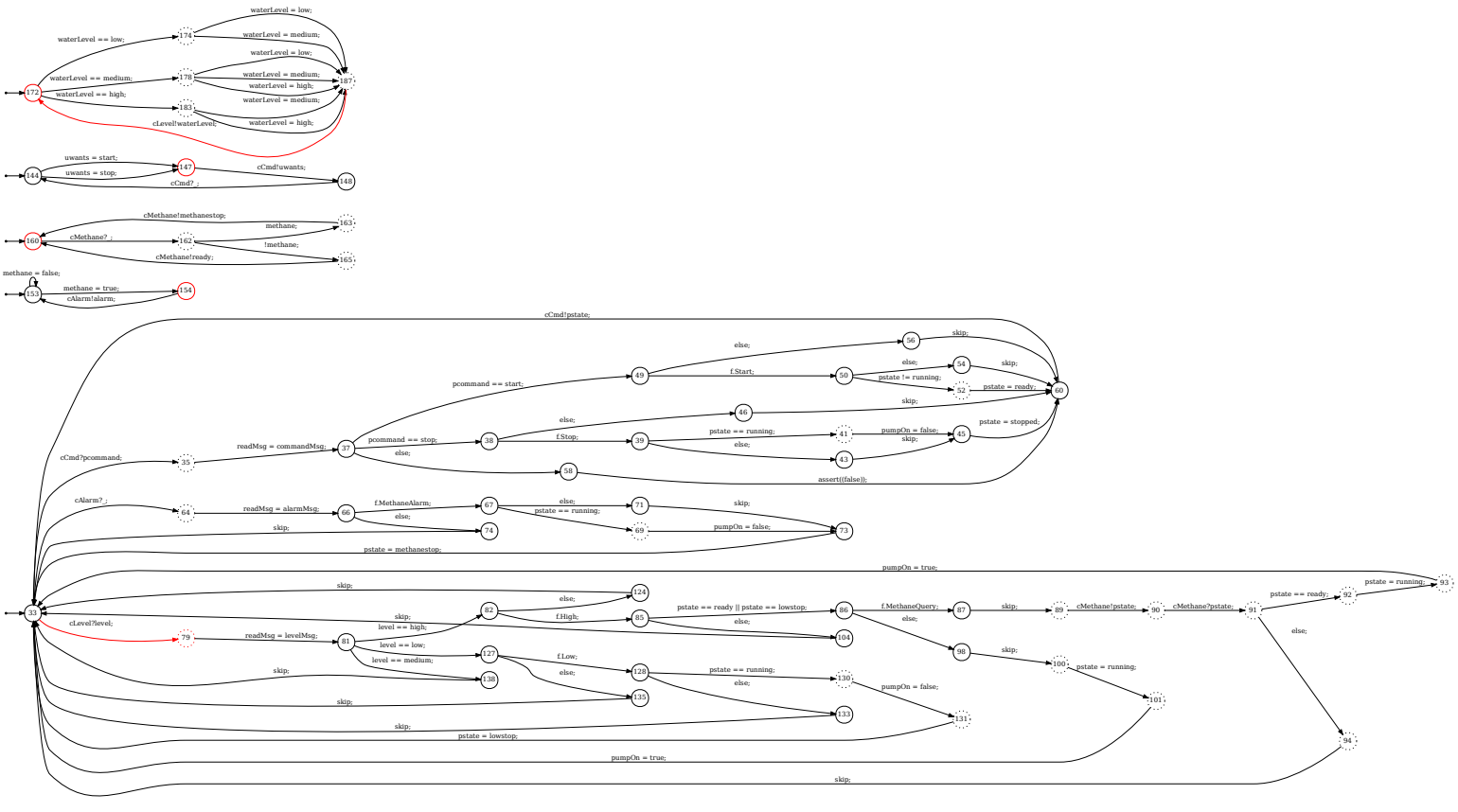
skip;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pstate = stopped;
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pstate == running;
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cCmd?pcommand;
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66
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readMsg = levelMsg;
81
skip;
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level == low;
level == medium;
127
f.Low;
else;
128
else;
138
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133
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pstate == ready || pstate == lowstop;
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cMethane?pstate;
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98
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pstate = lowstop;
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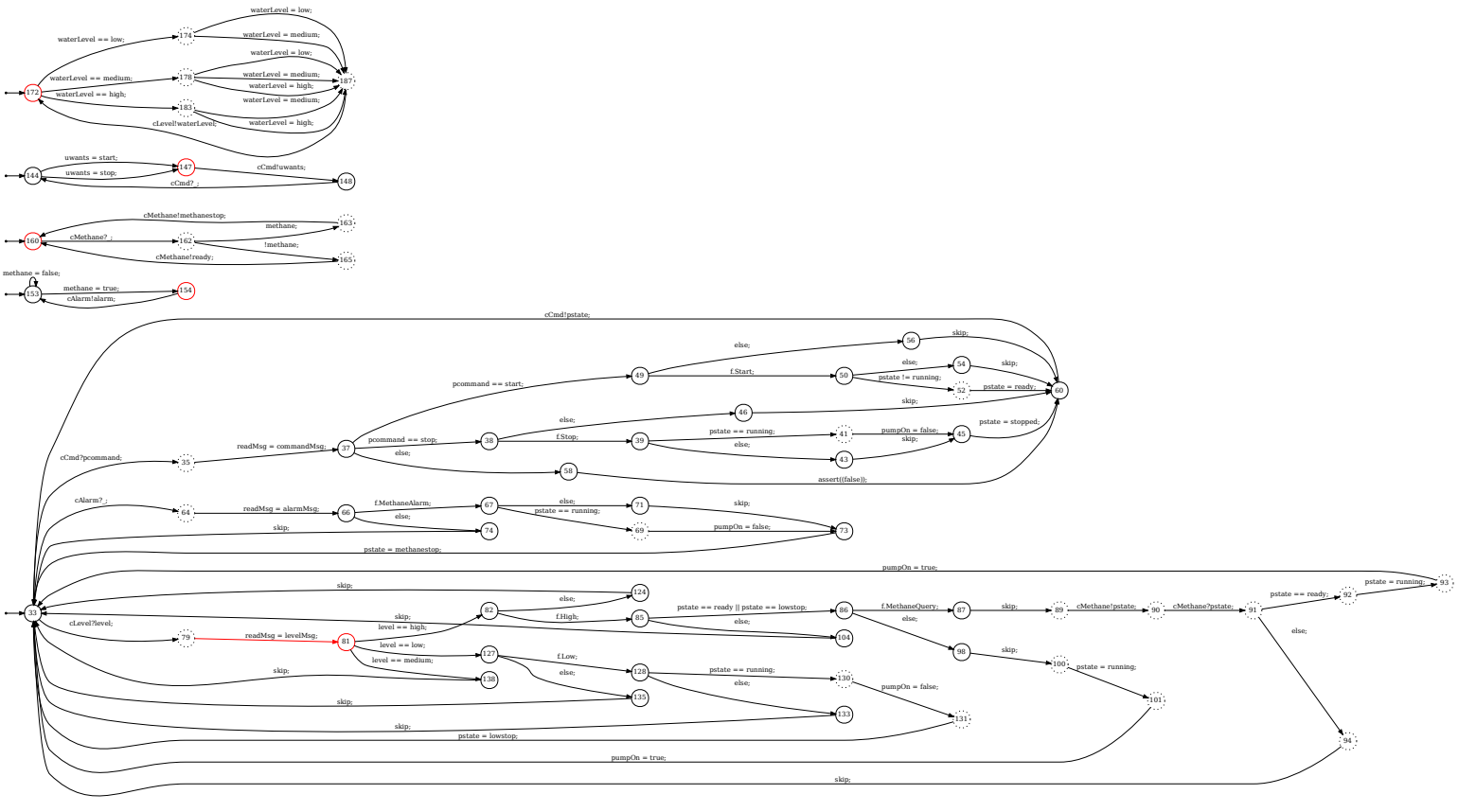
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147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
130
else;
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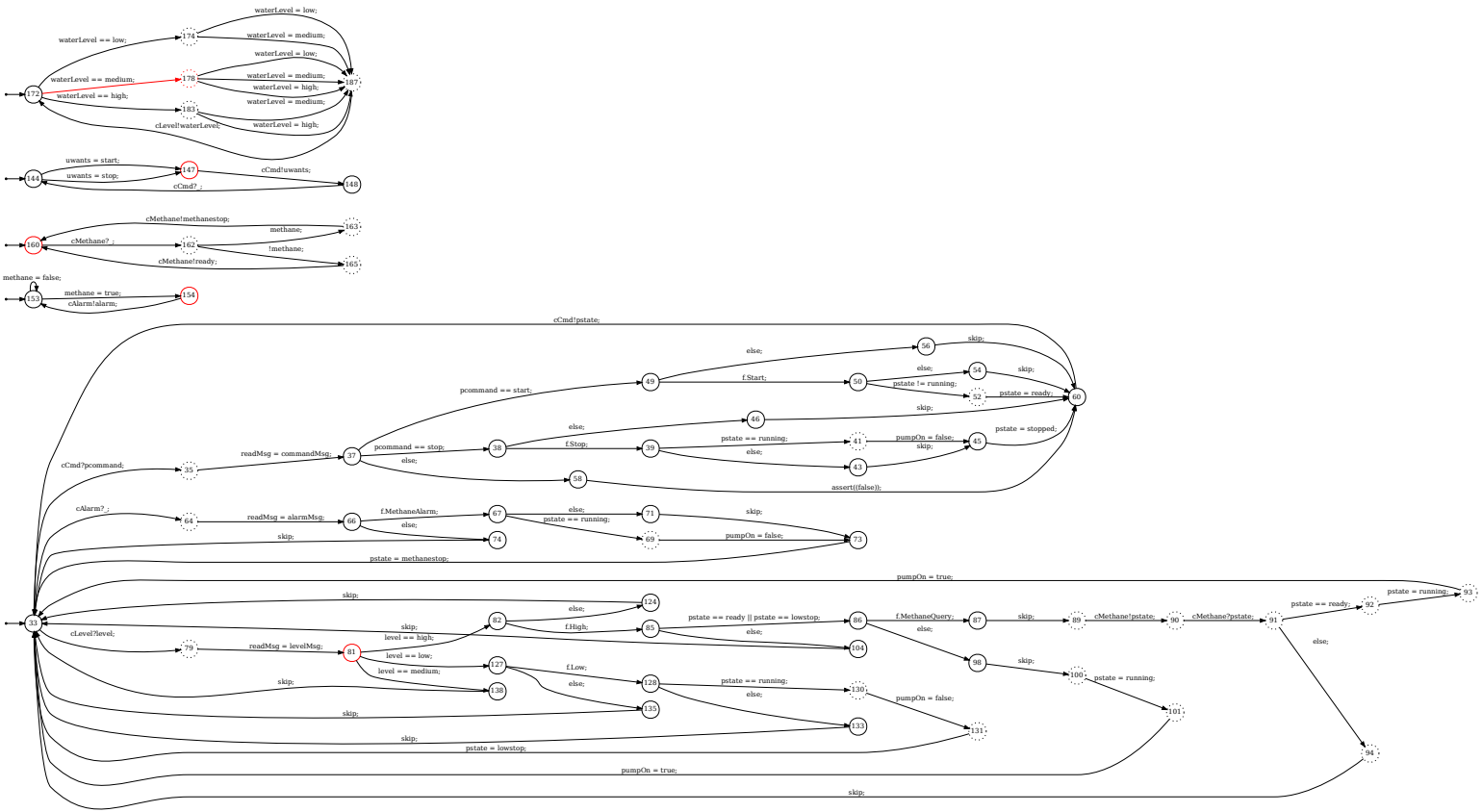
pumpOn = false;
133
131
pumpOn = true;
skip;
pstate == ready;
92
pstate = running;
93
94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waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
79
81
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86
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91
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100
101
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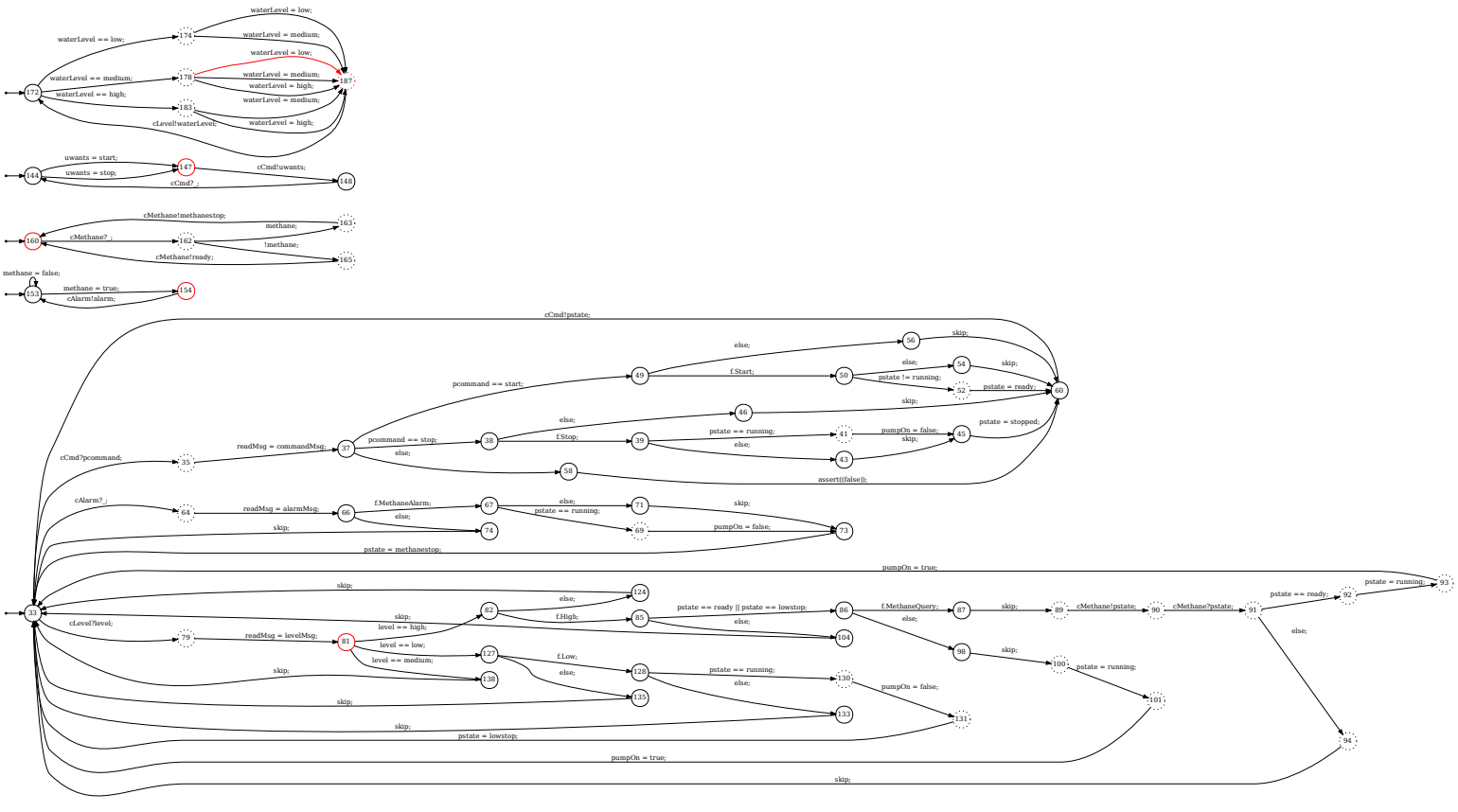
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
else;
135
133
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
130
else;
pumpOn = false;
131
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
92
pstate == ready;
93
pstate = running;
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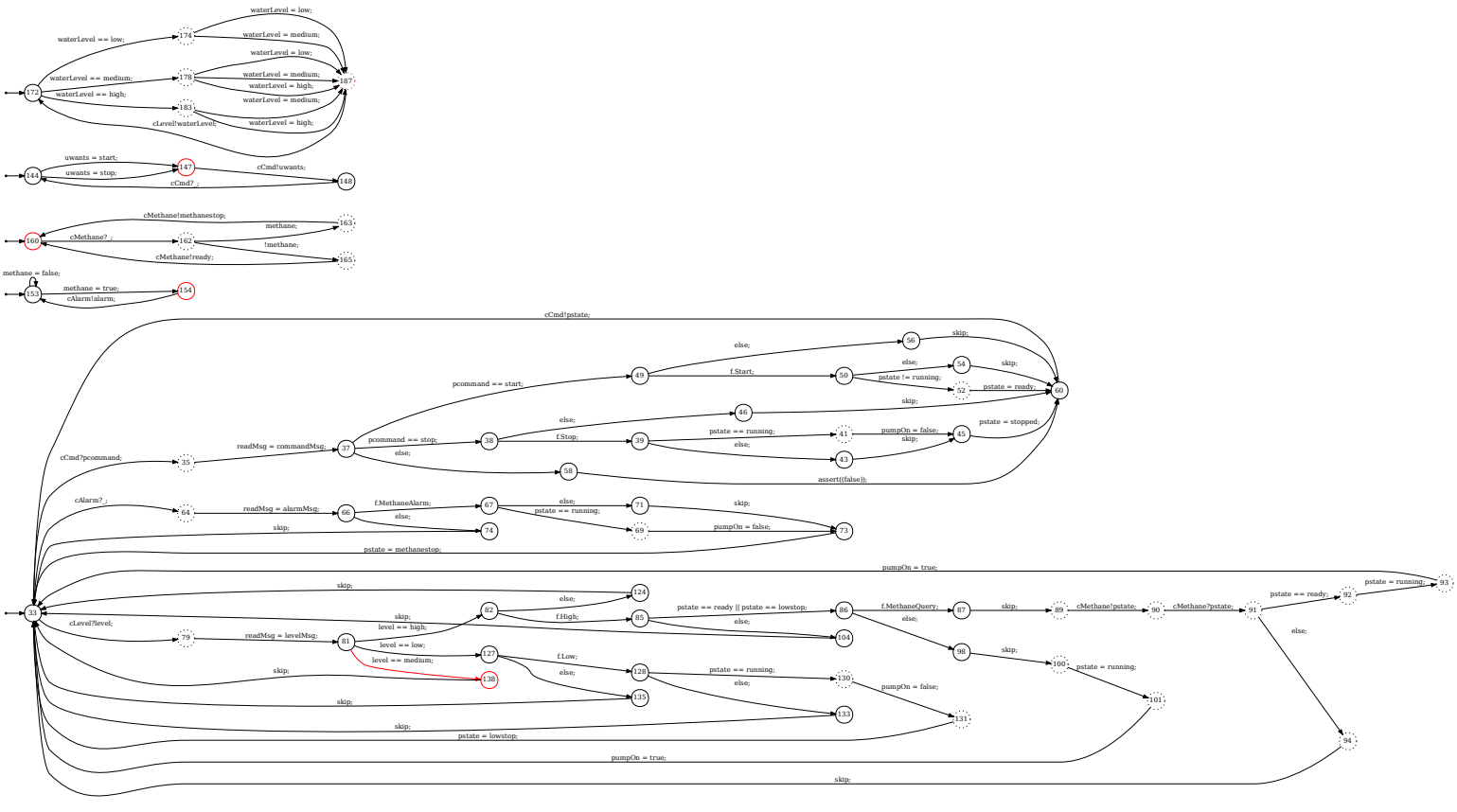
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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
else;
43
skip;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
128
level == medium;
138
135
skip;
skip;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
else;
pstate == running;
130
else;
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skip;
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pumpOn = true;
skip;
94
pstate == ready;
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pstate = running;
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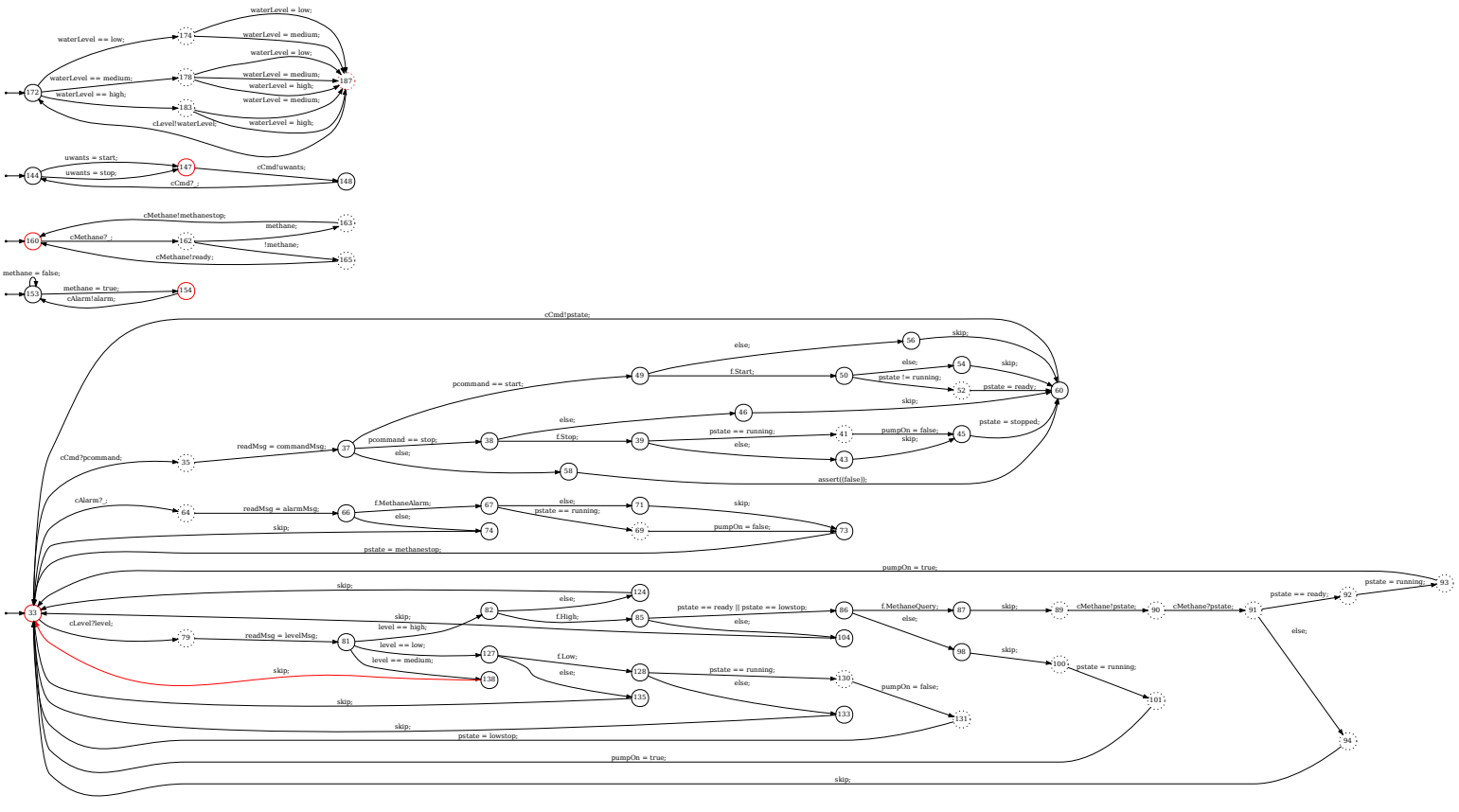
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174
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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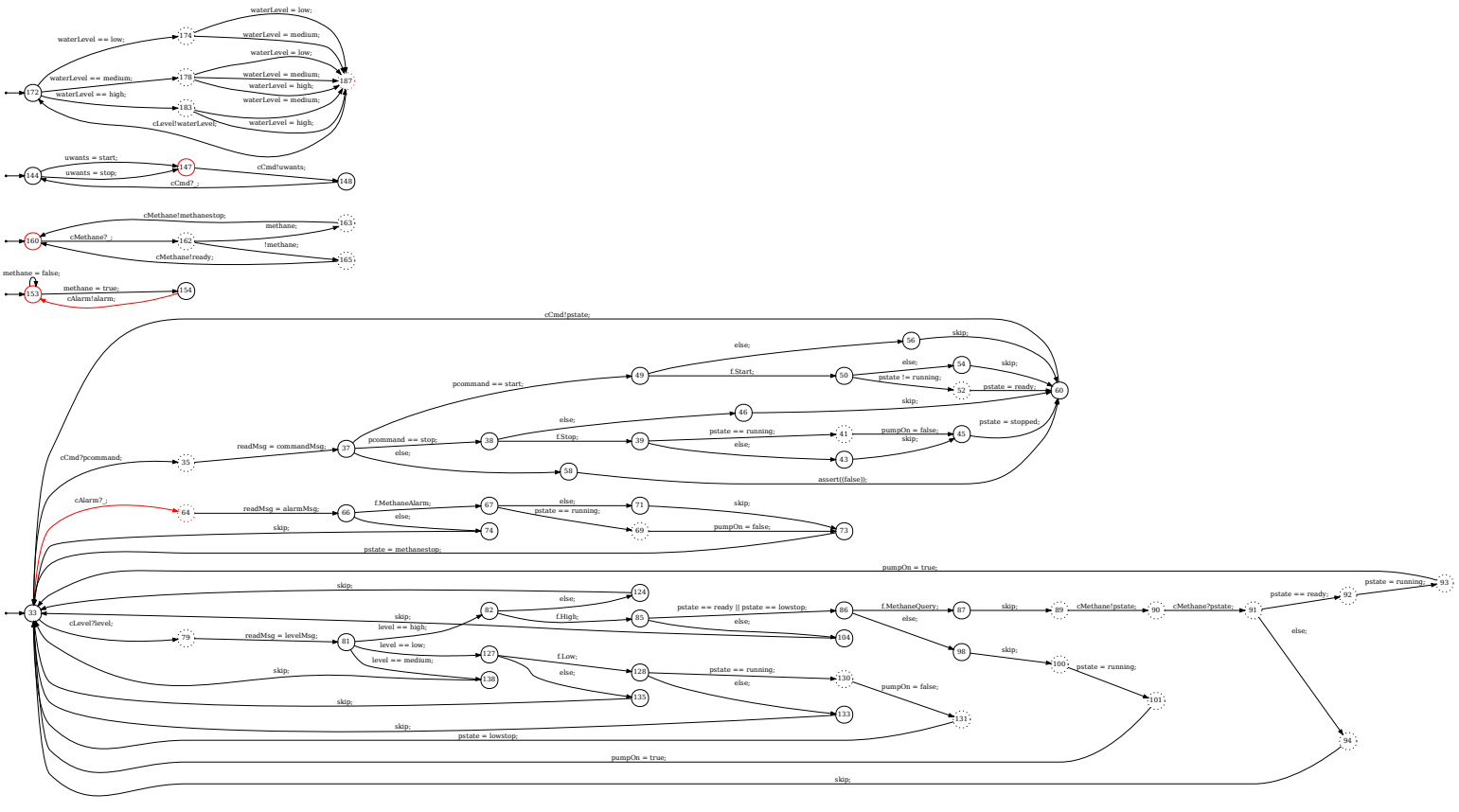
138
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
f.Start;
skip;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
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f.High;
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cLevel?level;
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readMsg = levelMsg;
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level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
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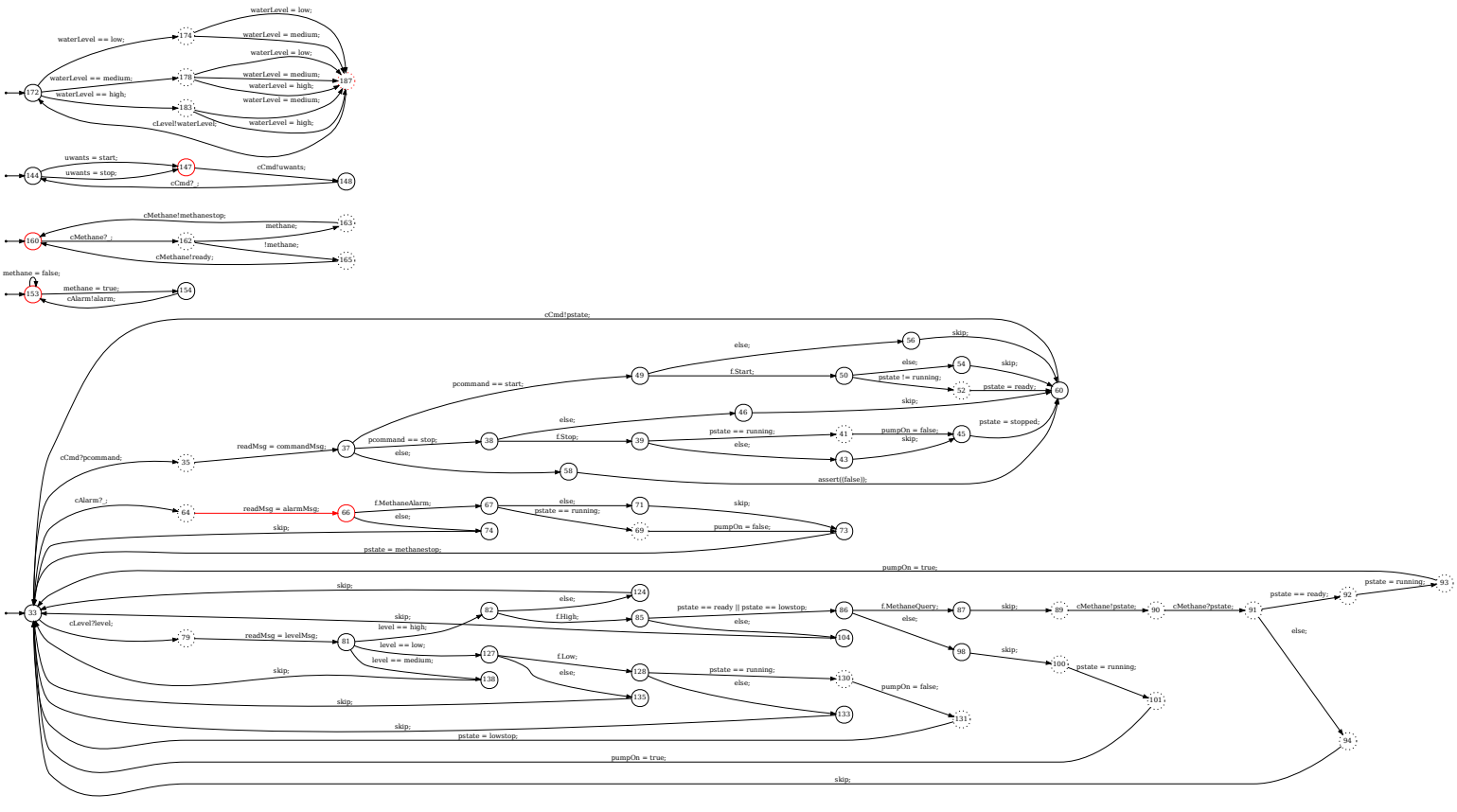
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready;
92
pstate = running;
93
94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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pumpOn = false;
skip;
f.Stop;
39
pstate == running;
else;
43
38
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
else;
104
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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skip;
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pstate = running;
101
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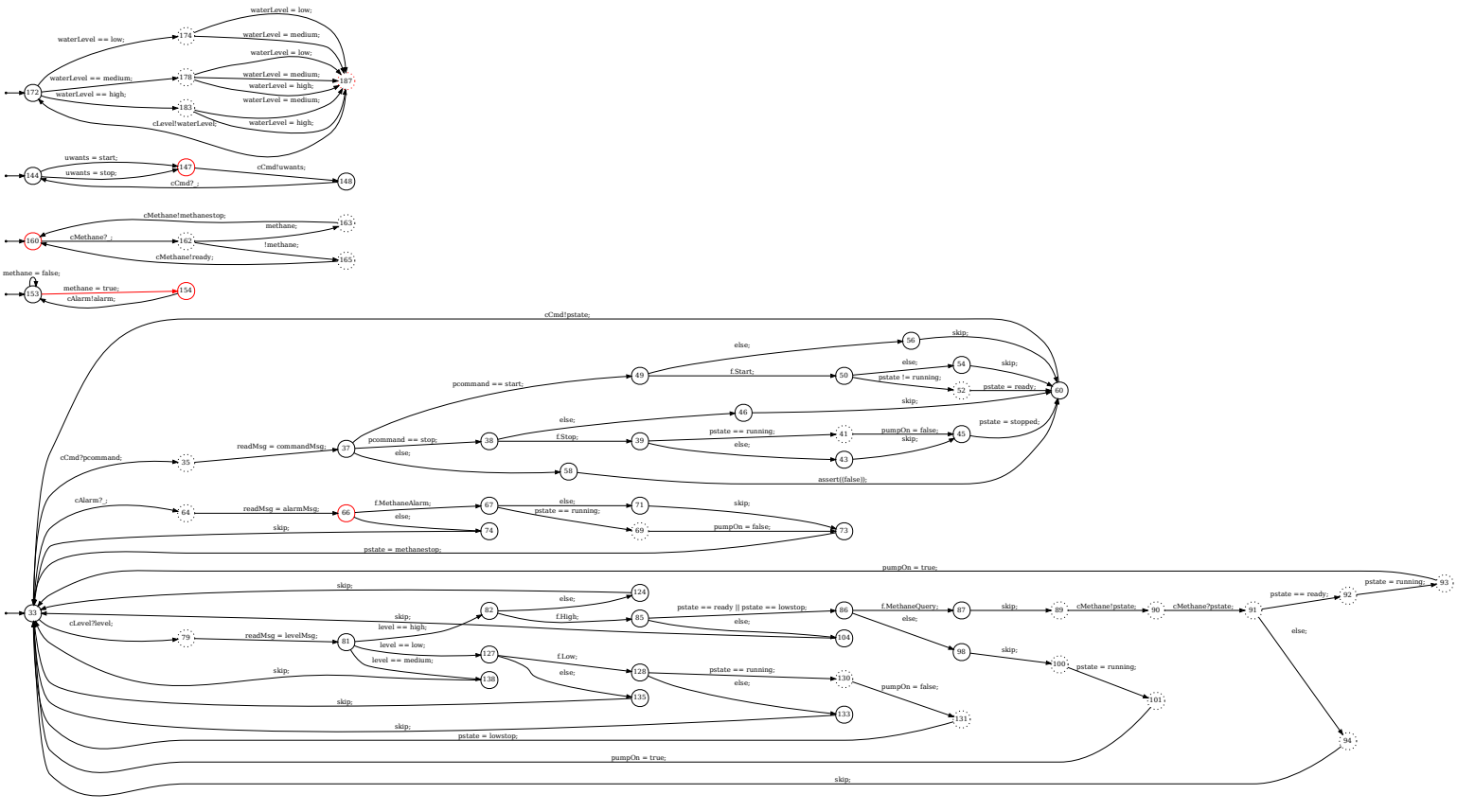
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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81
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87
89
90
91
92
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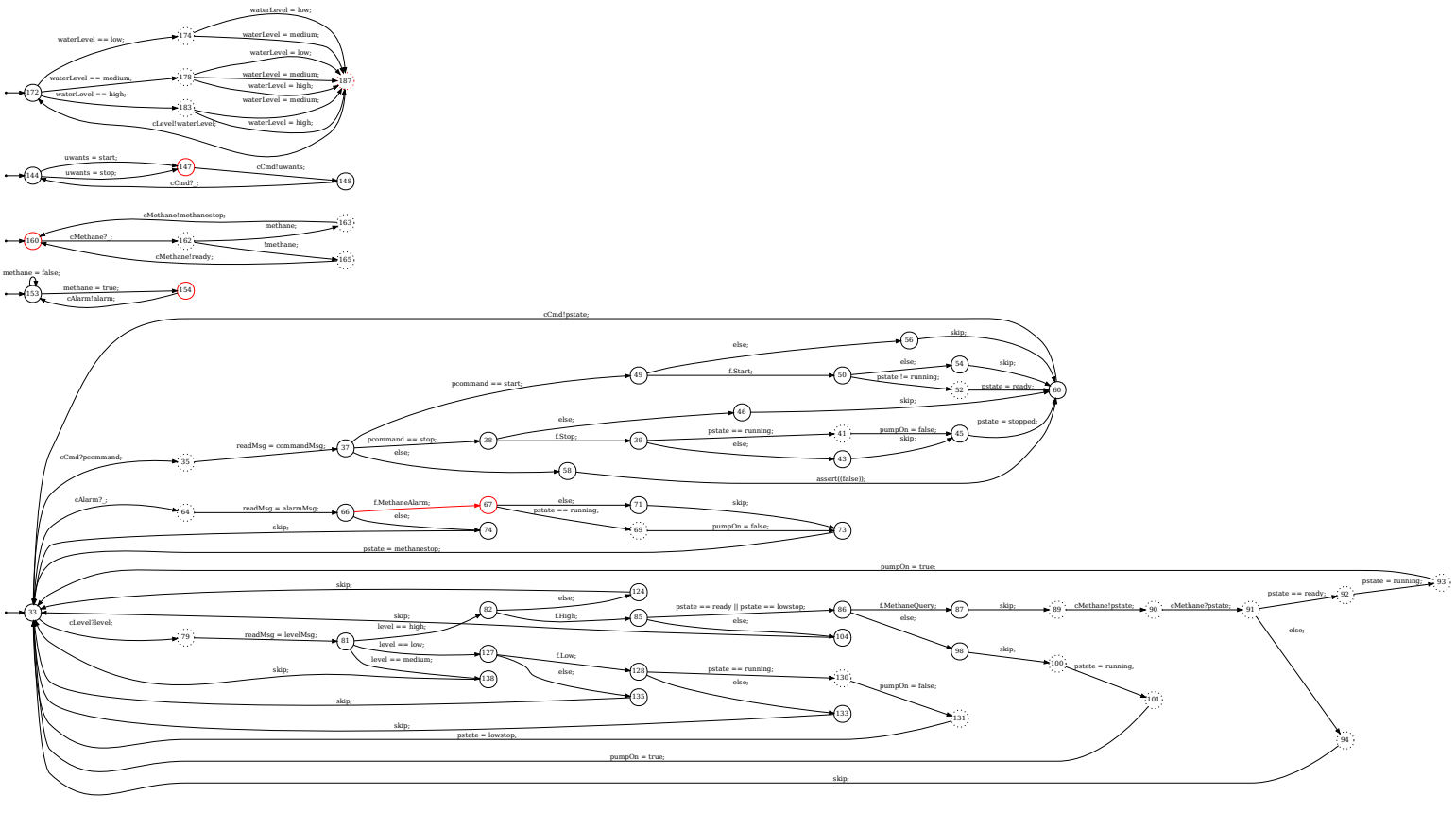
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
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pstate = running;
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pstate == running;
else;
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skip;
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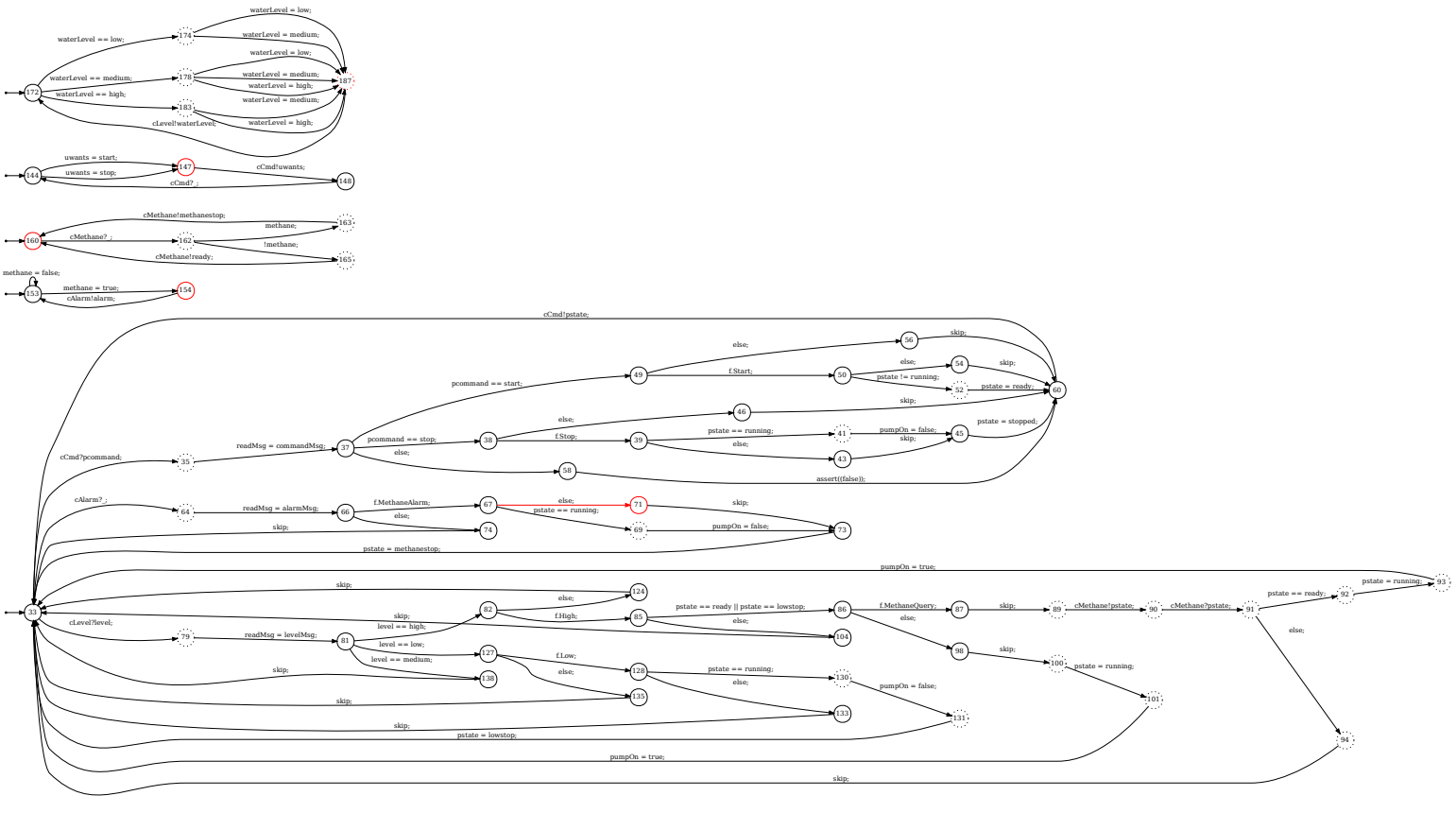
skip;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waterLevel == low;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
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cCmd!uwants;
cCmd? ;
160
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163
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cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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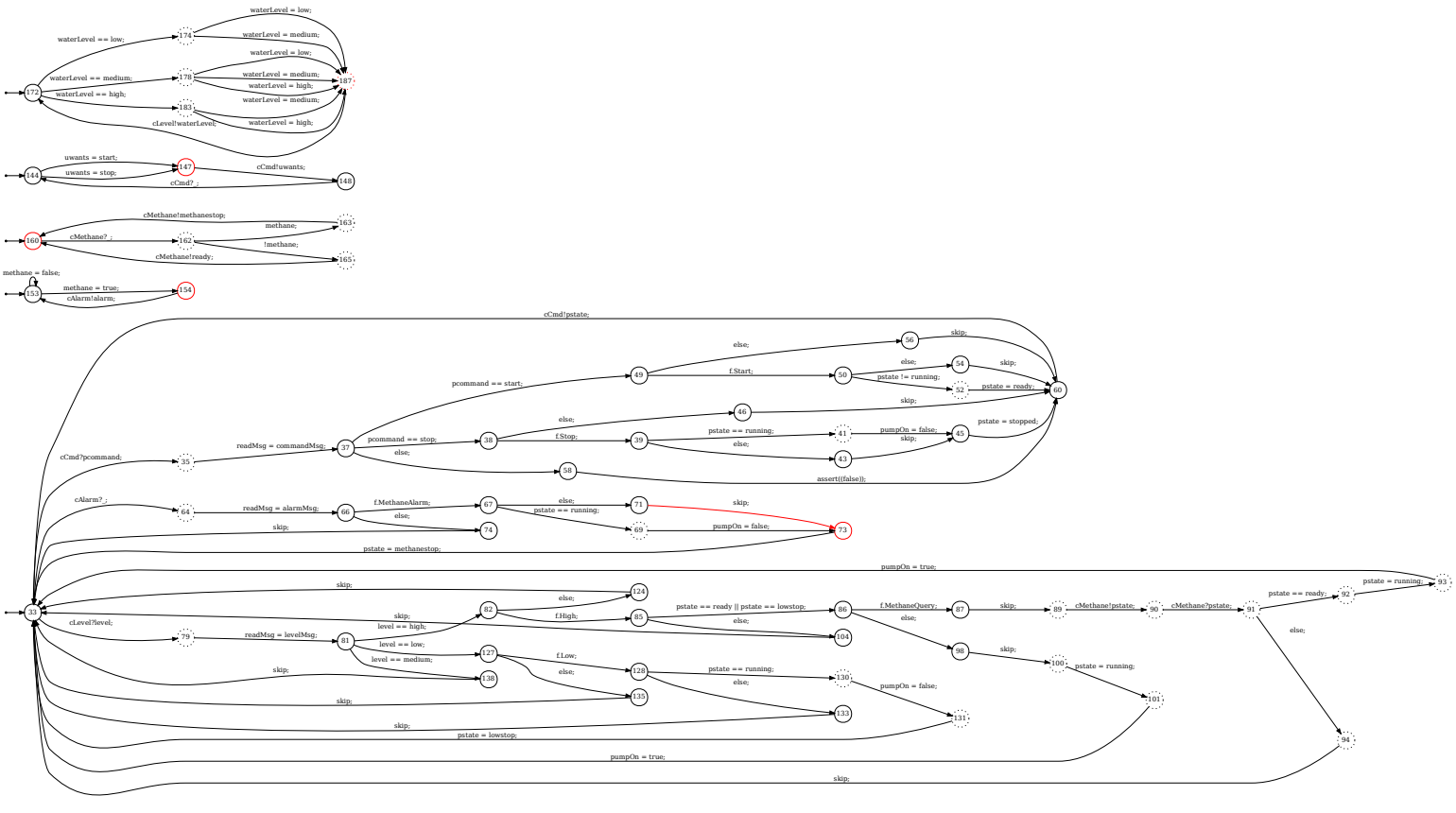
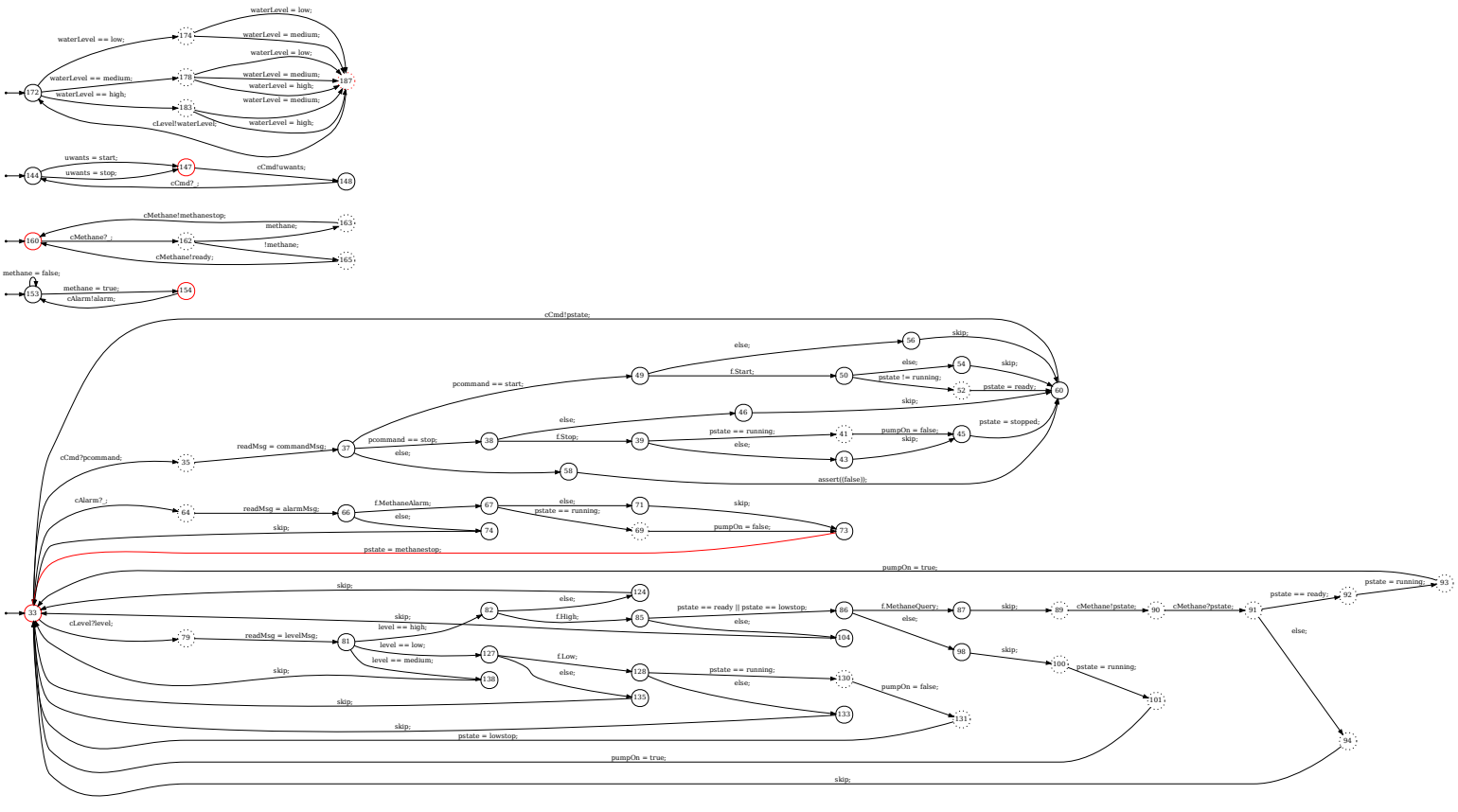
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;


172
174
176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
79
81
82
85
86
87
89
90
91
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;


waterLevel = low;
waterLevel == low;
174
waterLevel = medium;
waterLevel = low;
waterLevel == medium;
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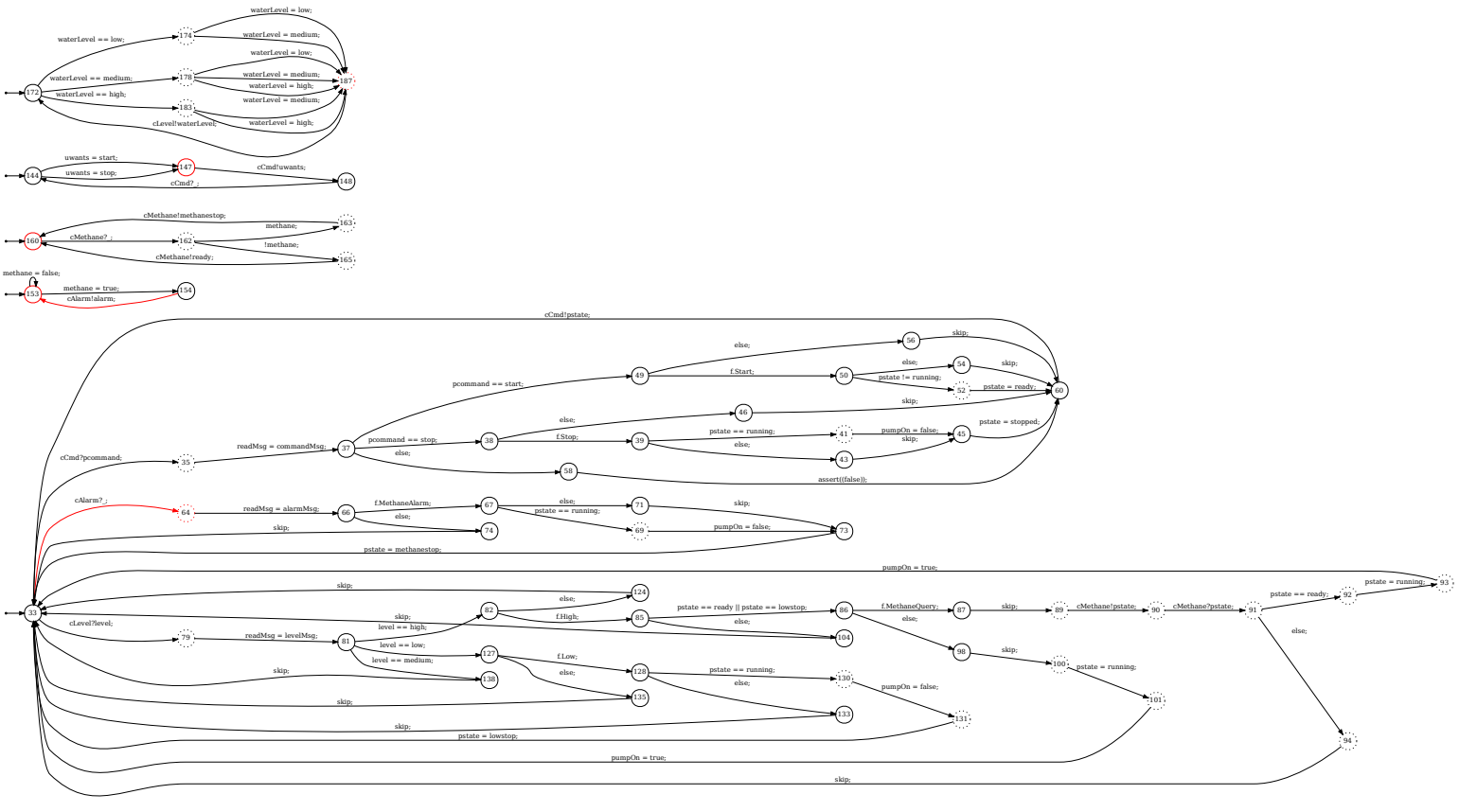
waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
130
else;
pumpOn = false;
101
skip;
135
133
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
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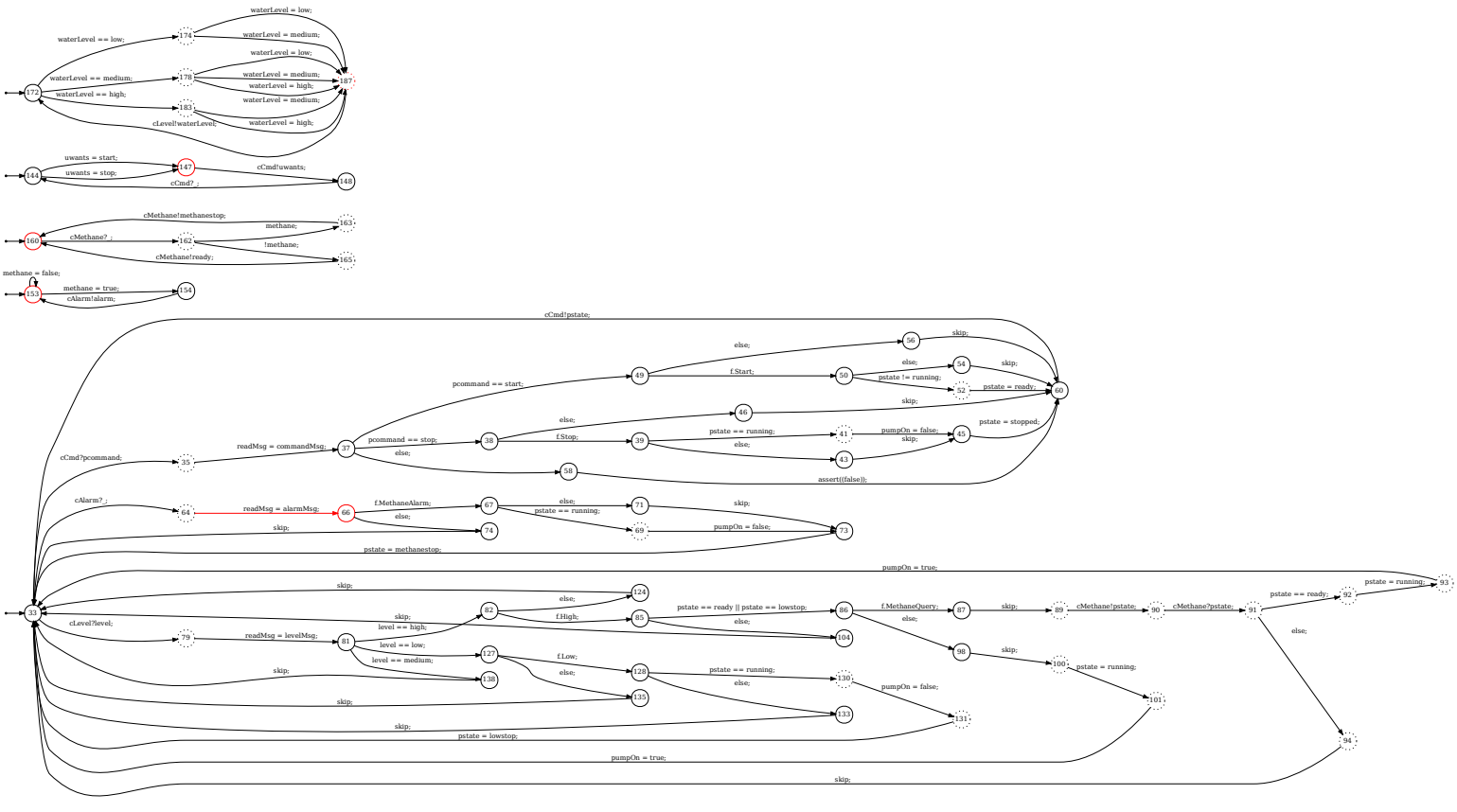
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready;
92
pstate = running;
93
94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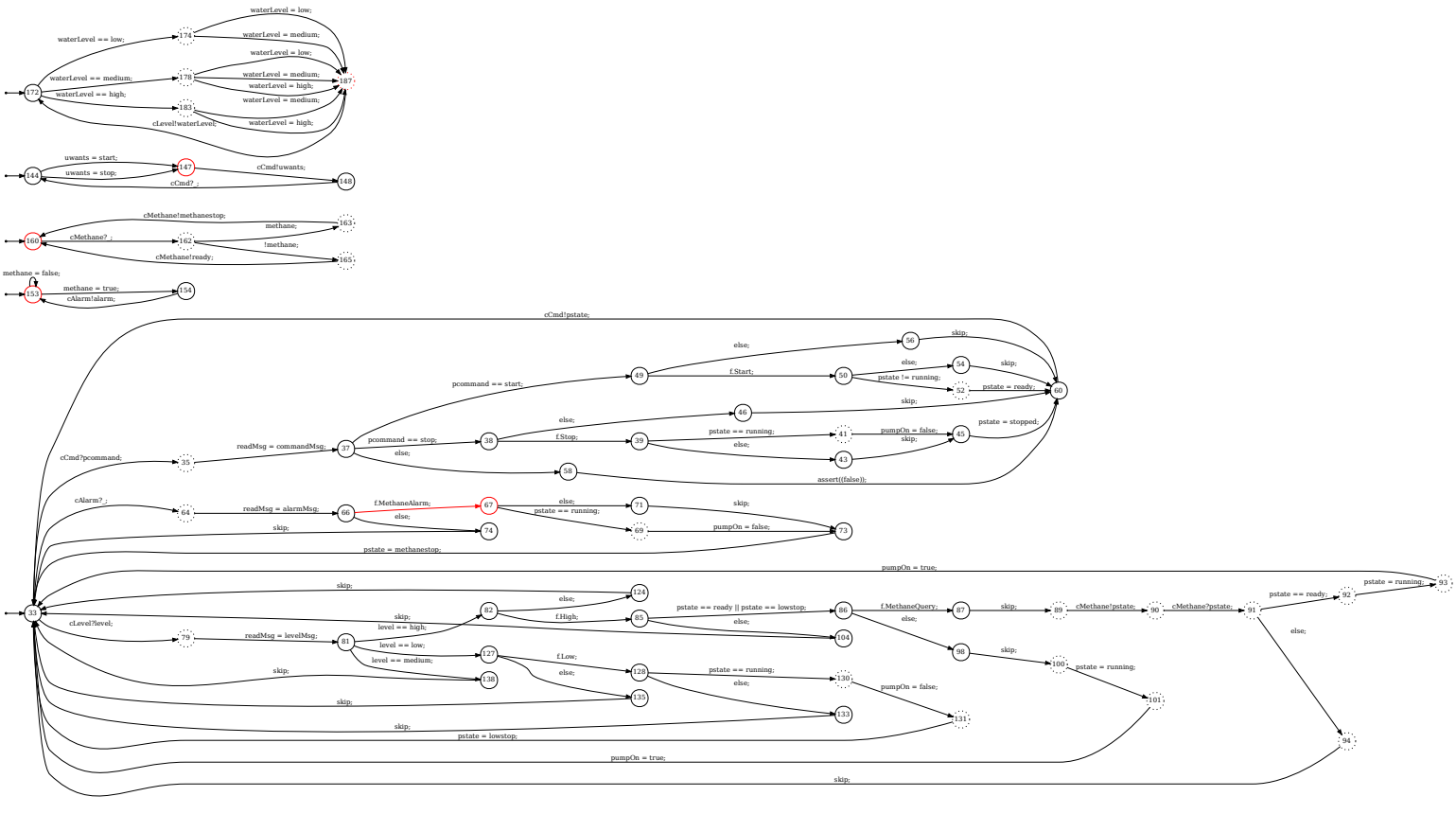
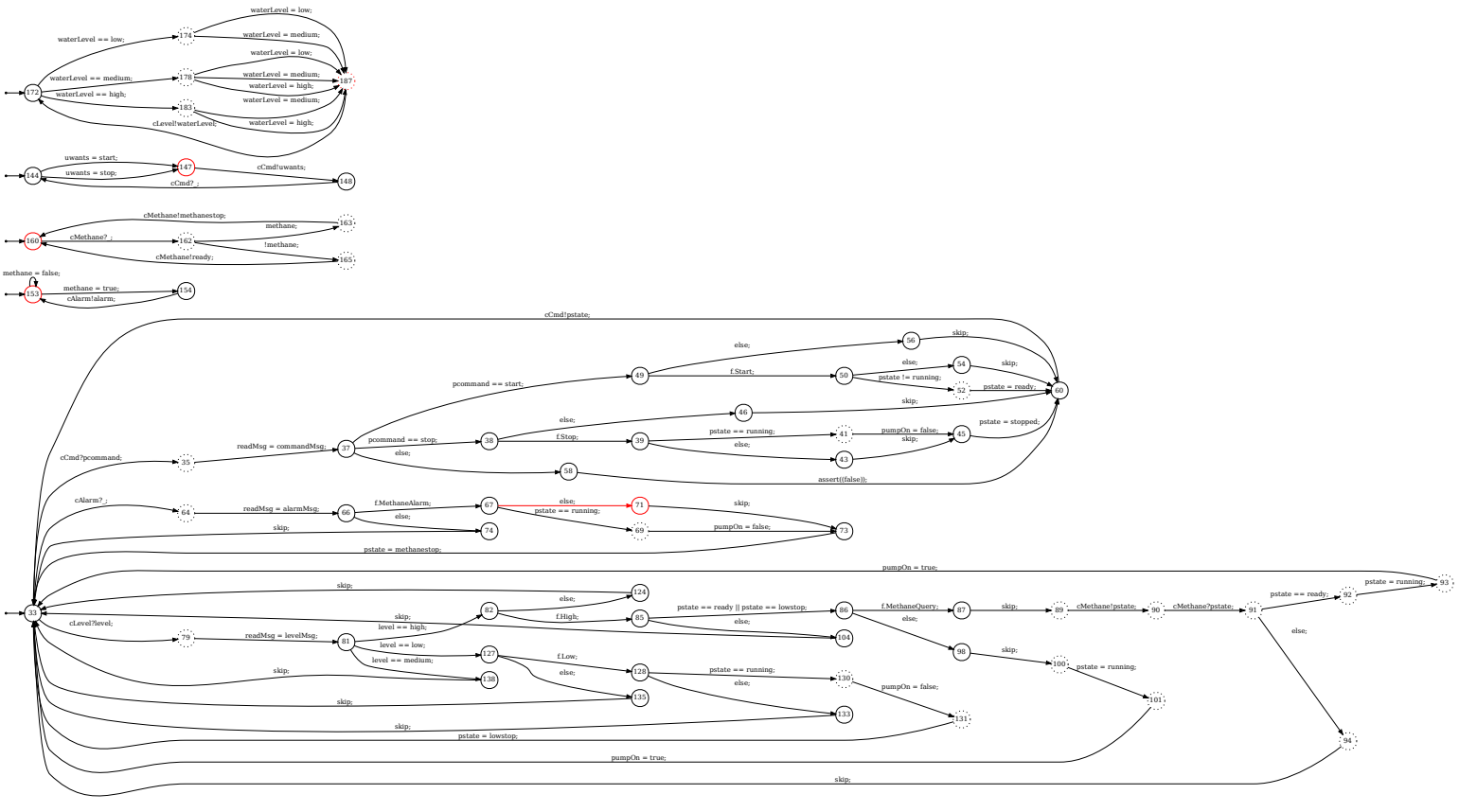
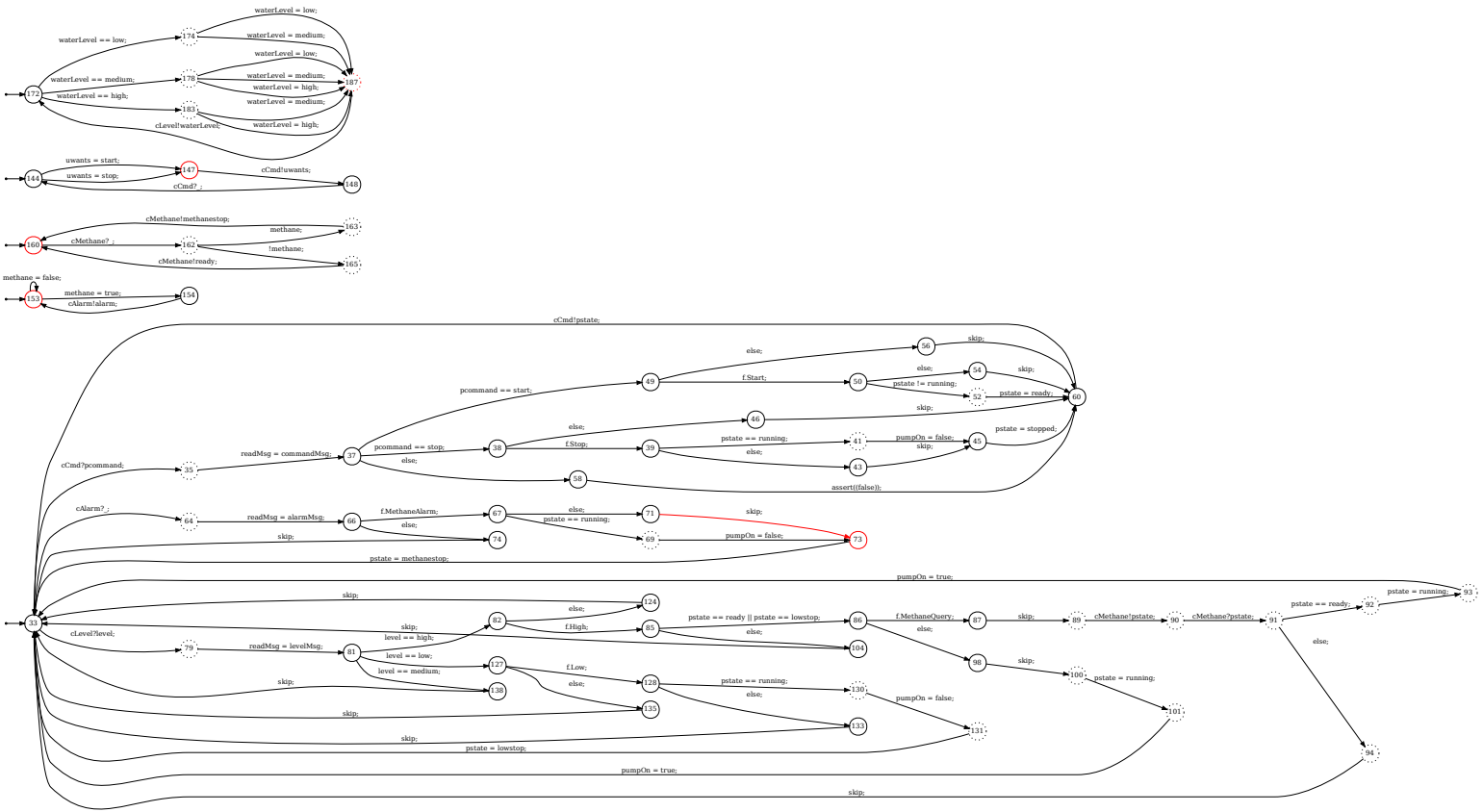
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pumpOn = false;
skip;
f.Stop;
39
pstate == running;
else;
43
38
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
else;
104
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
98
skip;
100
pstate = running;
101
94
138
135
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;


172
174
176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
60
skip;
46
else;
pcommand == start;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
39
f.Stop;
38
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
skip;
level == high;
f.High;
85
else;
104
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
135
138
skip;
skip;
skip;
98
skip;
100
pstate = running;
101
94
pstate = lowstop;
pumpOn = true;
skip;


172
waterLevel == low;
174
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
131
133
pumpOn = false;
pumpOn = true;
skip;
89
skip;
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
94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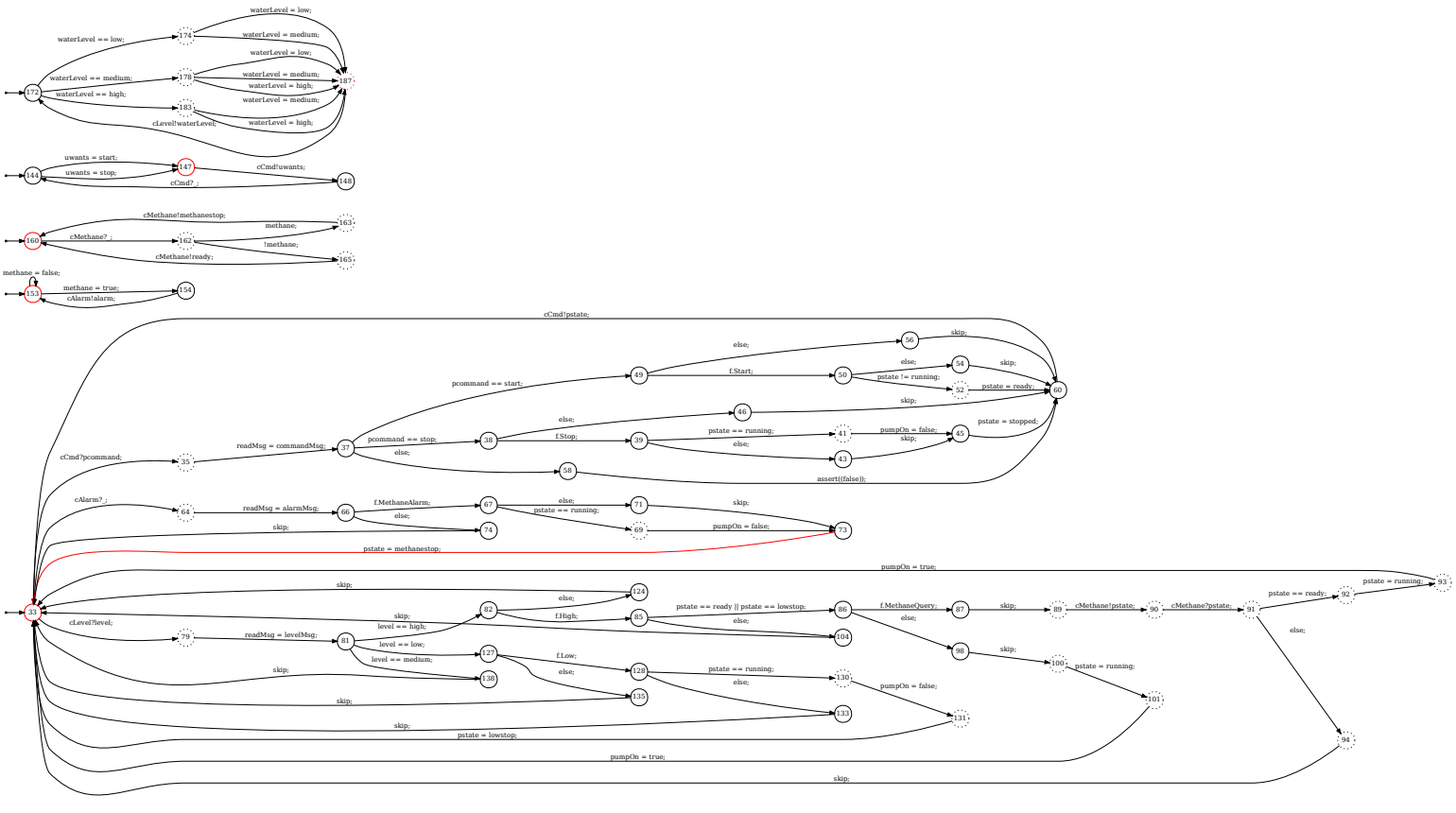
174
176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
else;
skip;
pcommand == stop;
else;
f.Stop;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
79
81
82
85
86
87
89
90
91
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
skip;
else;
f.High;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.Low;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
else;
pstate = running;
skip;
pstate = running;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
162
cMethane!methanestop;
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
98
skip;
100
pstate = running;
101
138
135
skip;
skip;
skip;
pstate = lowstop;
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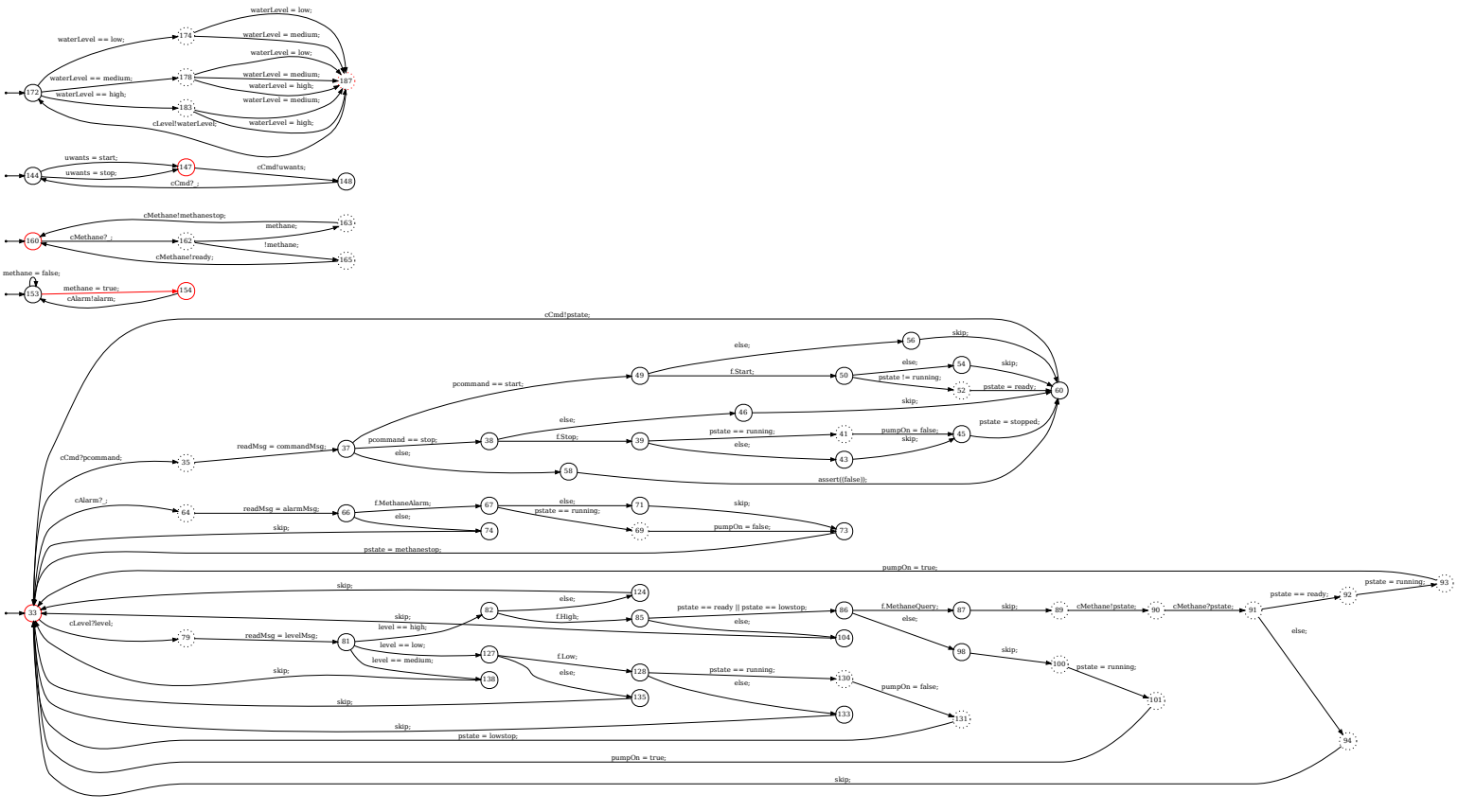
pumpOn = true;
skip;


172
waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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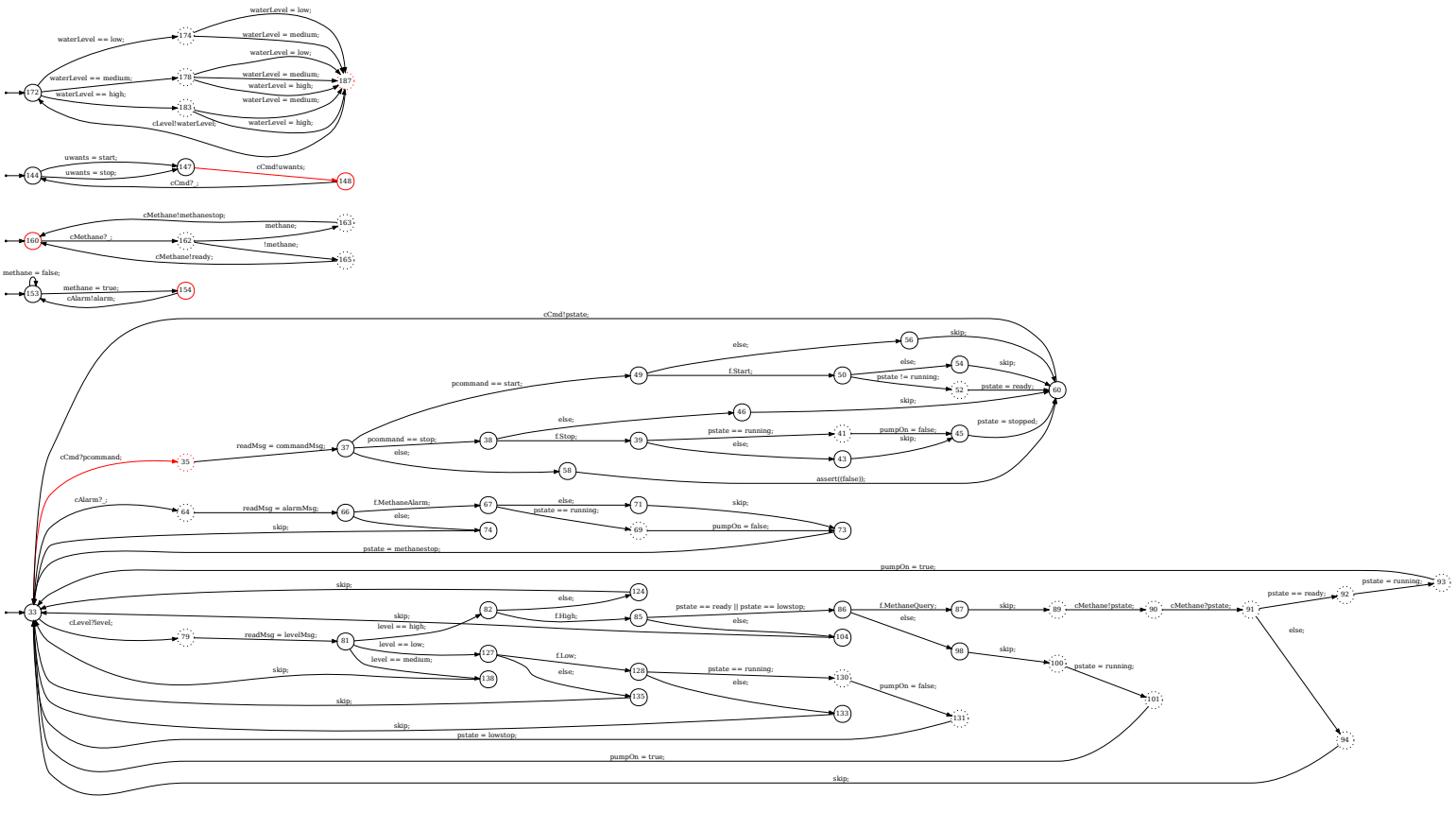
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
pstate == running;
else;
130
pumpOn = false;
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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pstate == running;
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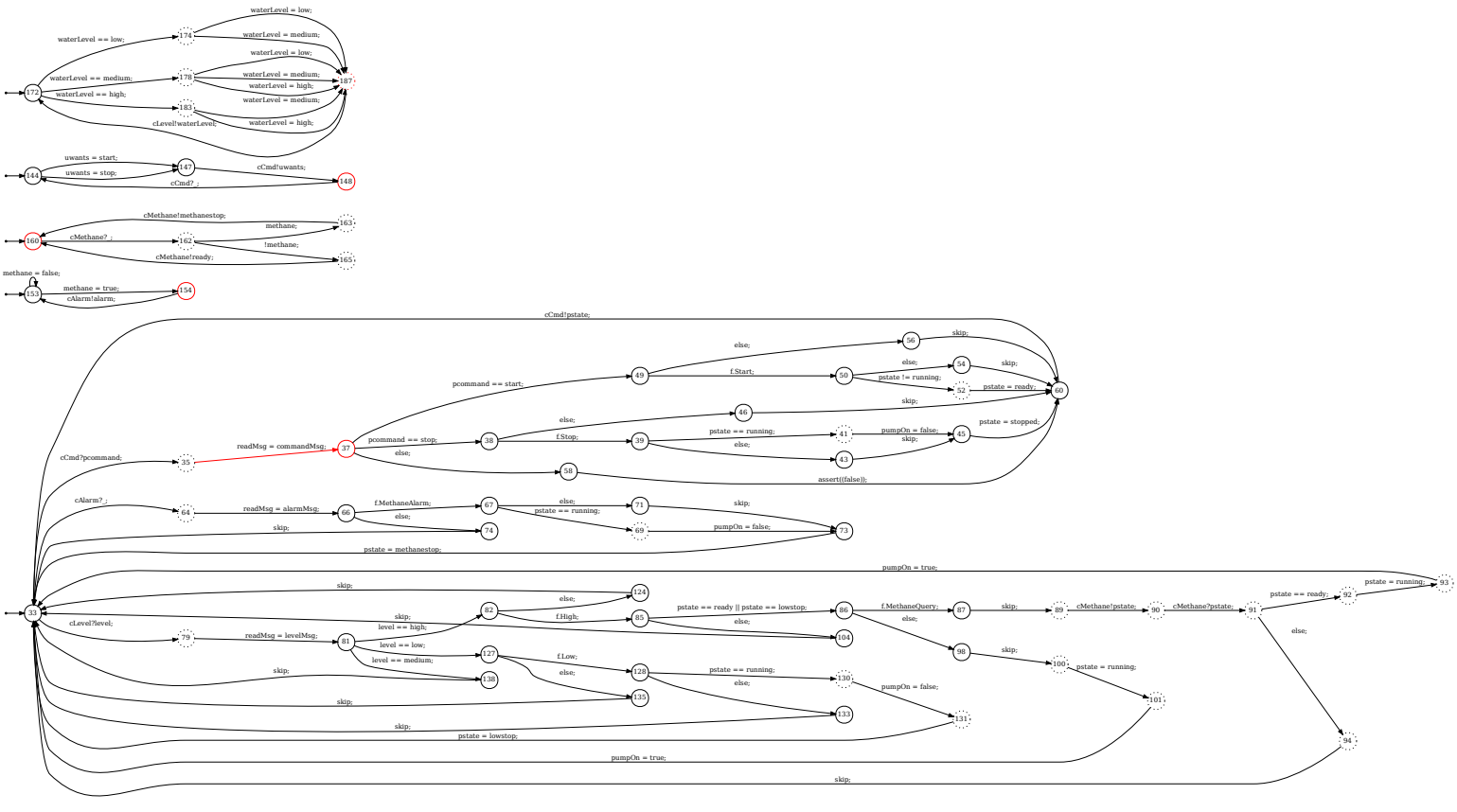
skip;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waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
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pstate = ready;
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f.Start;
pcommand == start;
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skip;
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41
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pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
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43
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pcommand == stop;
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58
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readMsg = commandMsg;
35
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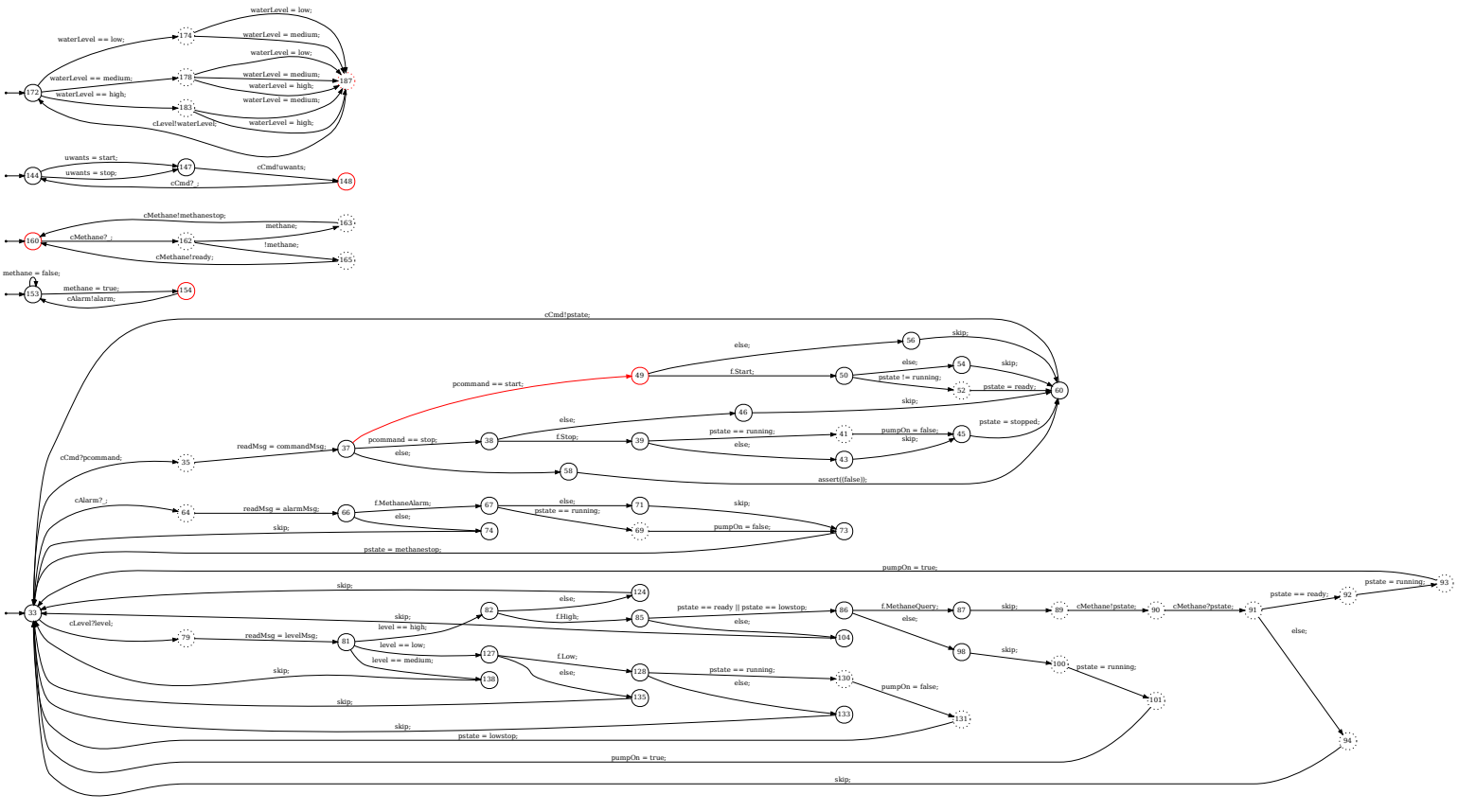
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cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
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cMethane? ;
162
cMethane!methanestop;
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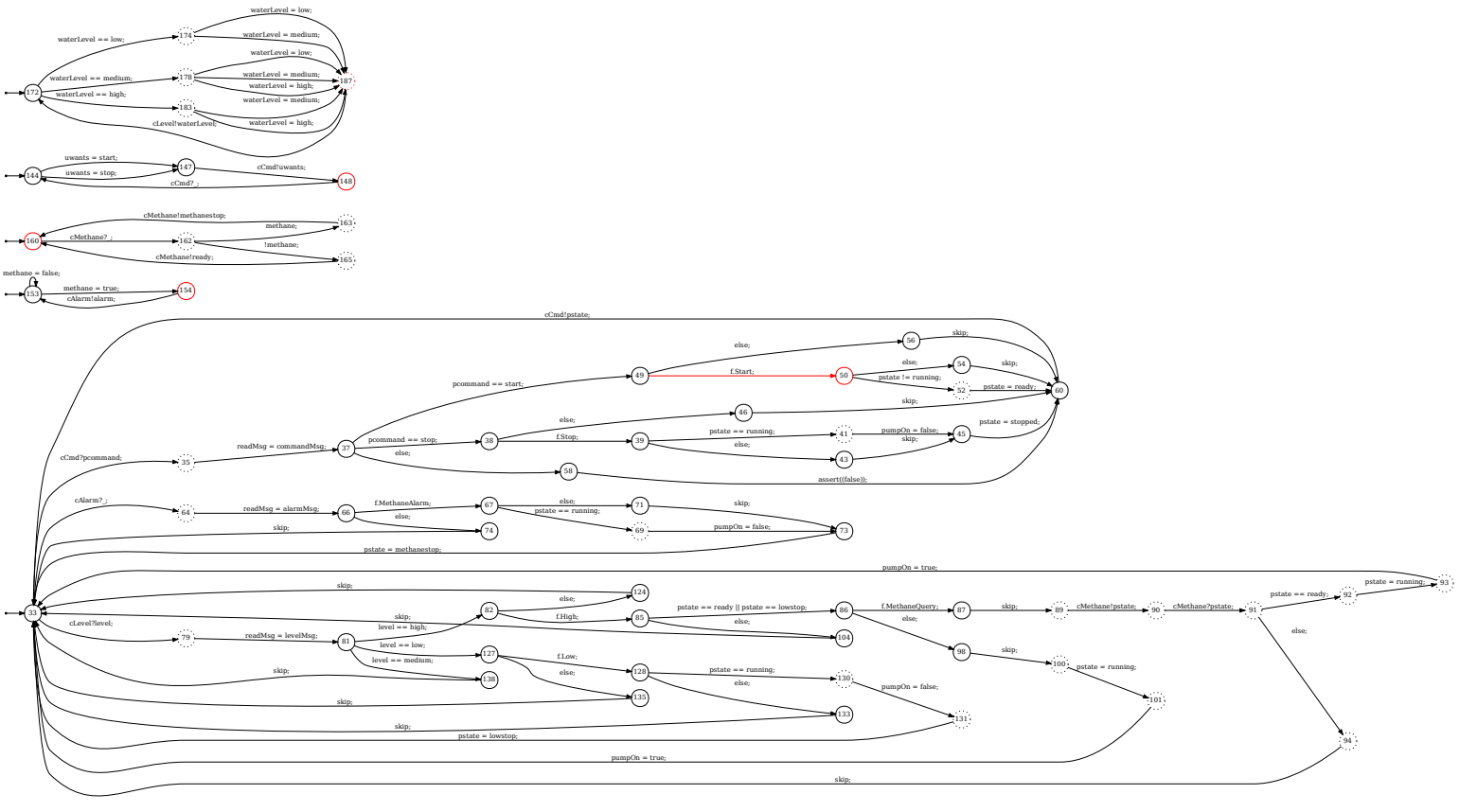
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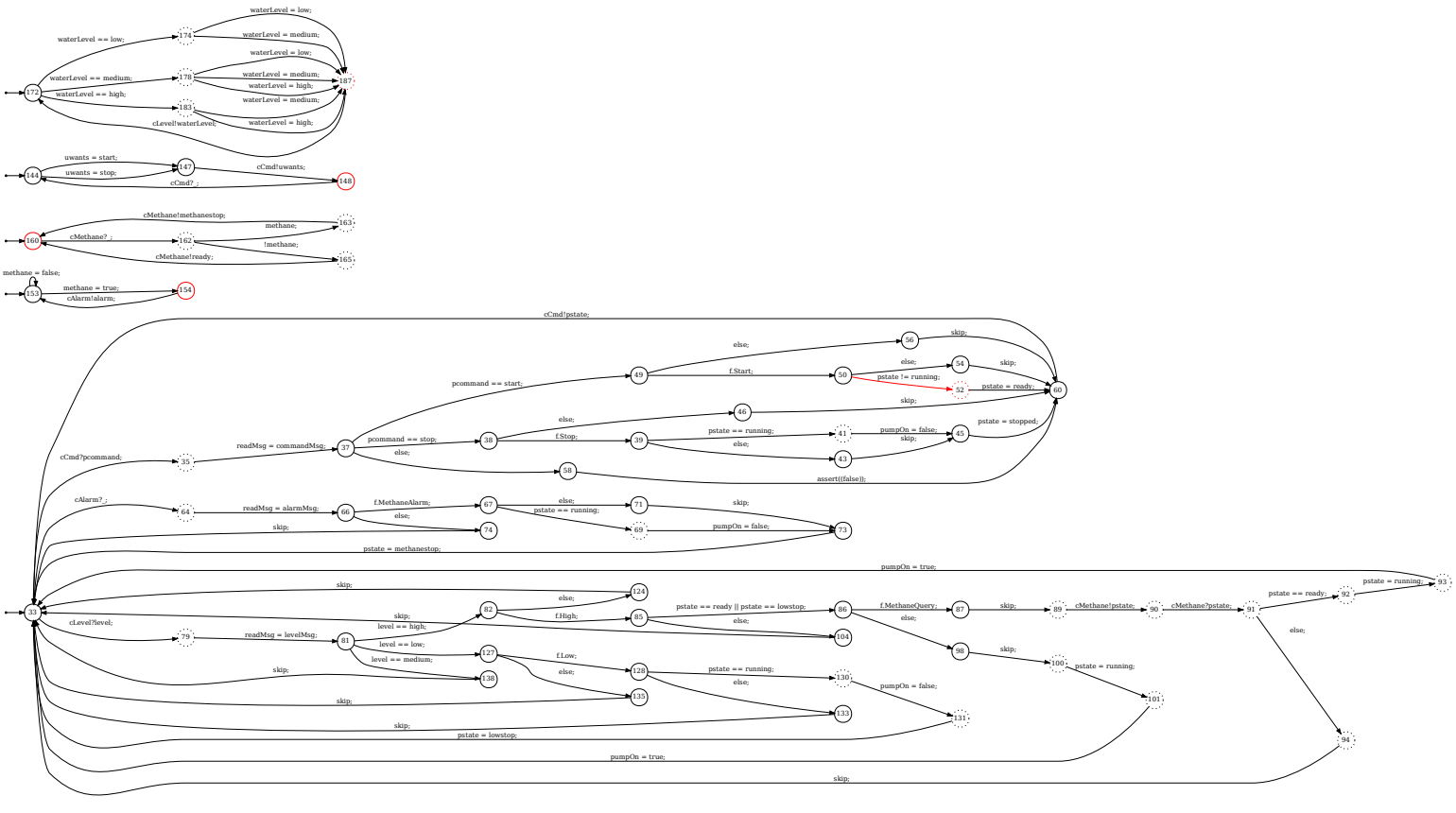
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144
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cCmd? ;
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153
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pstate = stopped;
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readMsg = alarmMsg;
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67
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pstate == running;
skip;
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pstate == ready || pstate == lowstop;
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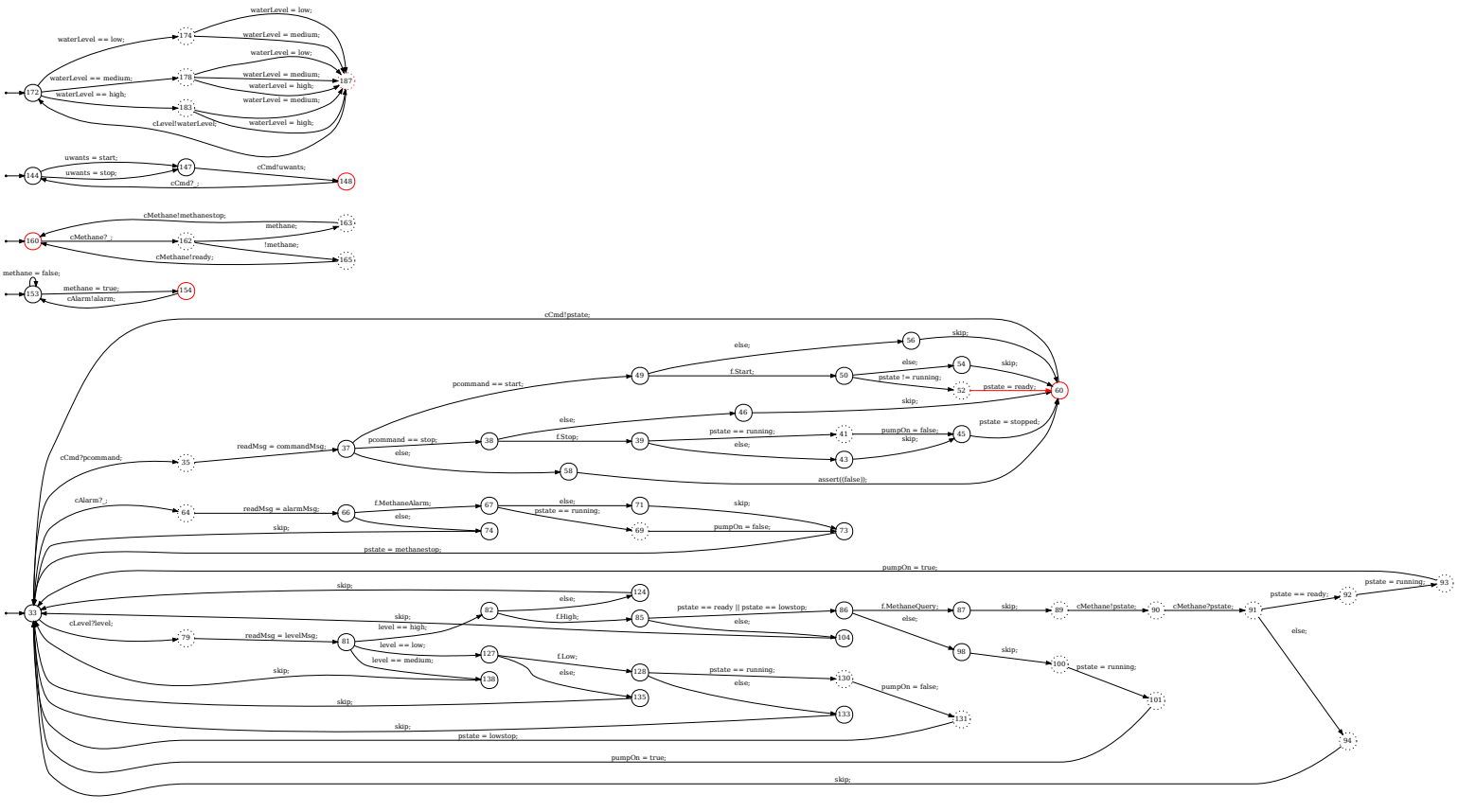
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waterLevel == high;
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49
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pstate != running;
52
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pstate == running;
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pstate = stopped;
skip;
cCmd?pcommand;
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readMsg = alarmMsg;
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f.MethaneAlarm;
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74
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skip;
pstate = methanestop;
pumpOn = true;
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skip;
124
else;
82
else;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
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cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
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else;
cLevel?level;
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readMsg = levelMsg;
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skip;
level == high;
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else;
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skip;
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pstate = running;
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level == low;
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level == medium;
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else;
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pstate == running;
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pstate = lowstop;
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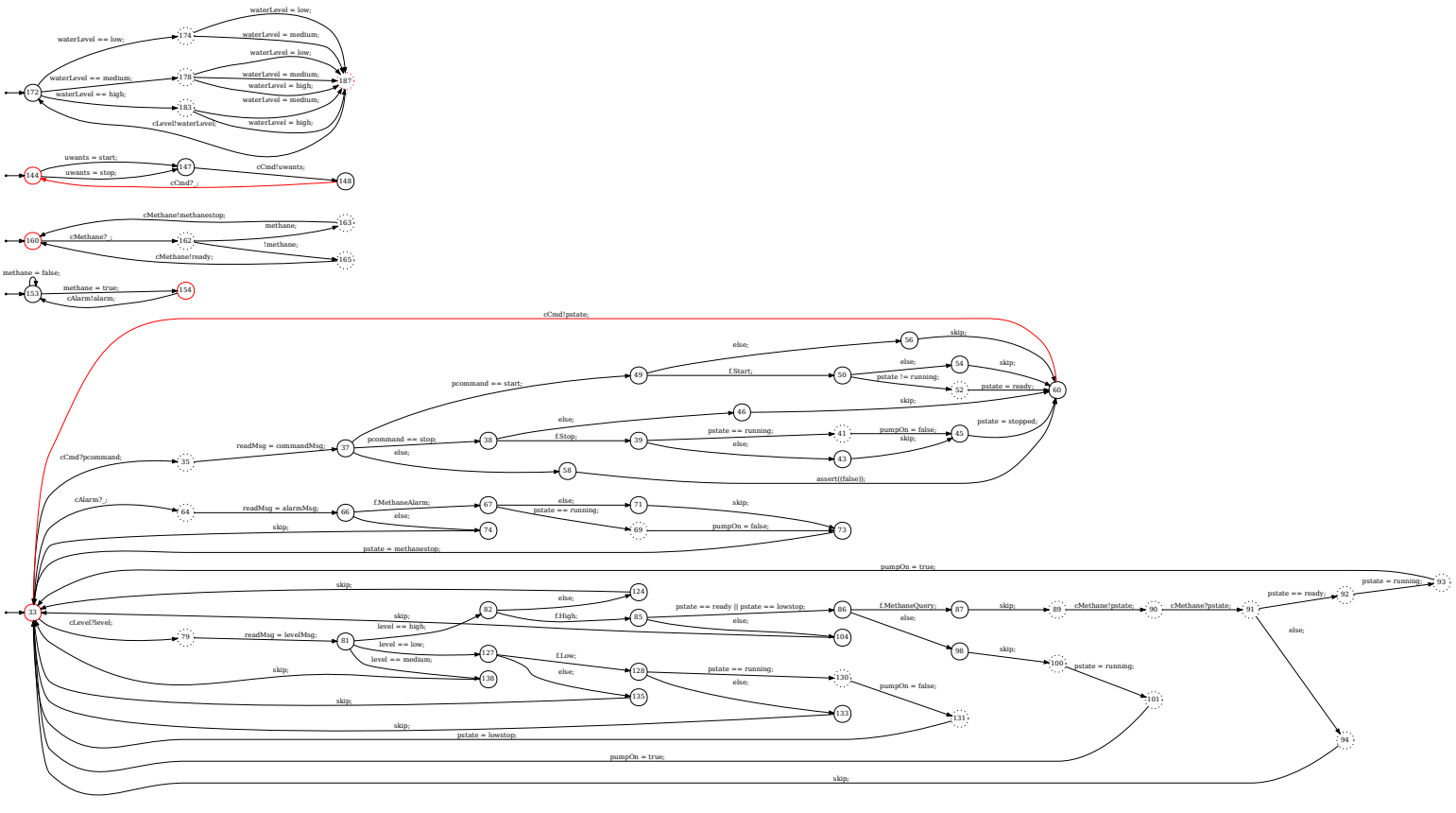
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
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144
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154
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pstate = lowstop;
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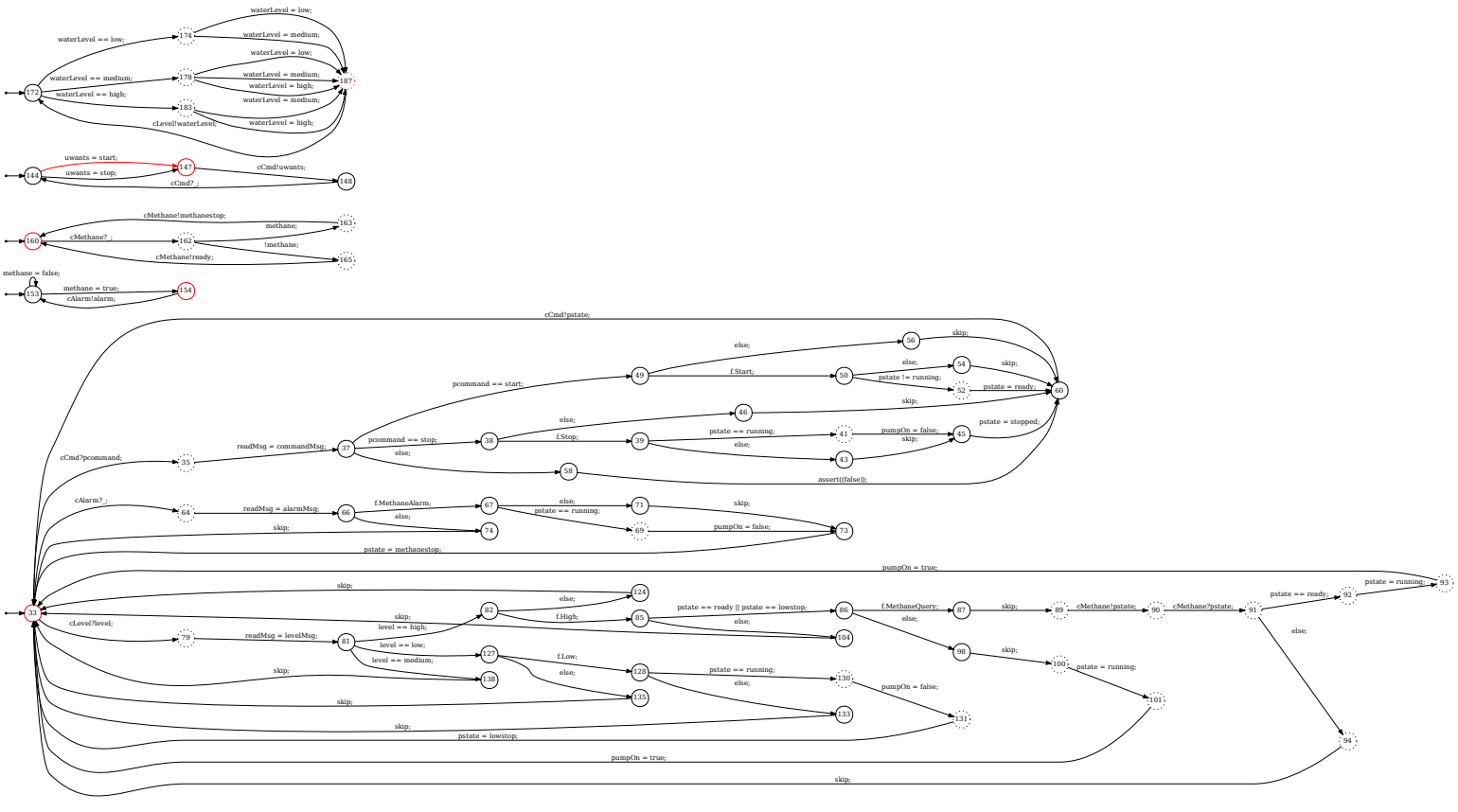
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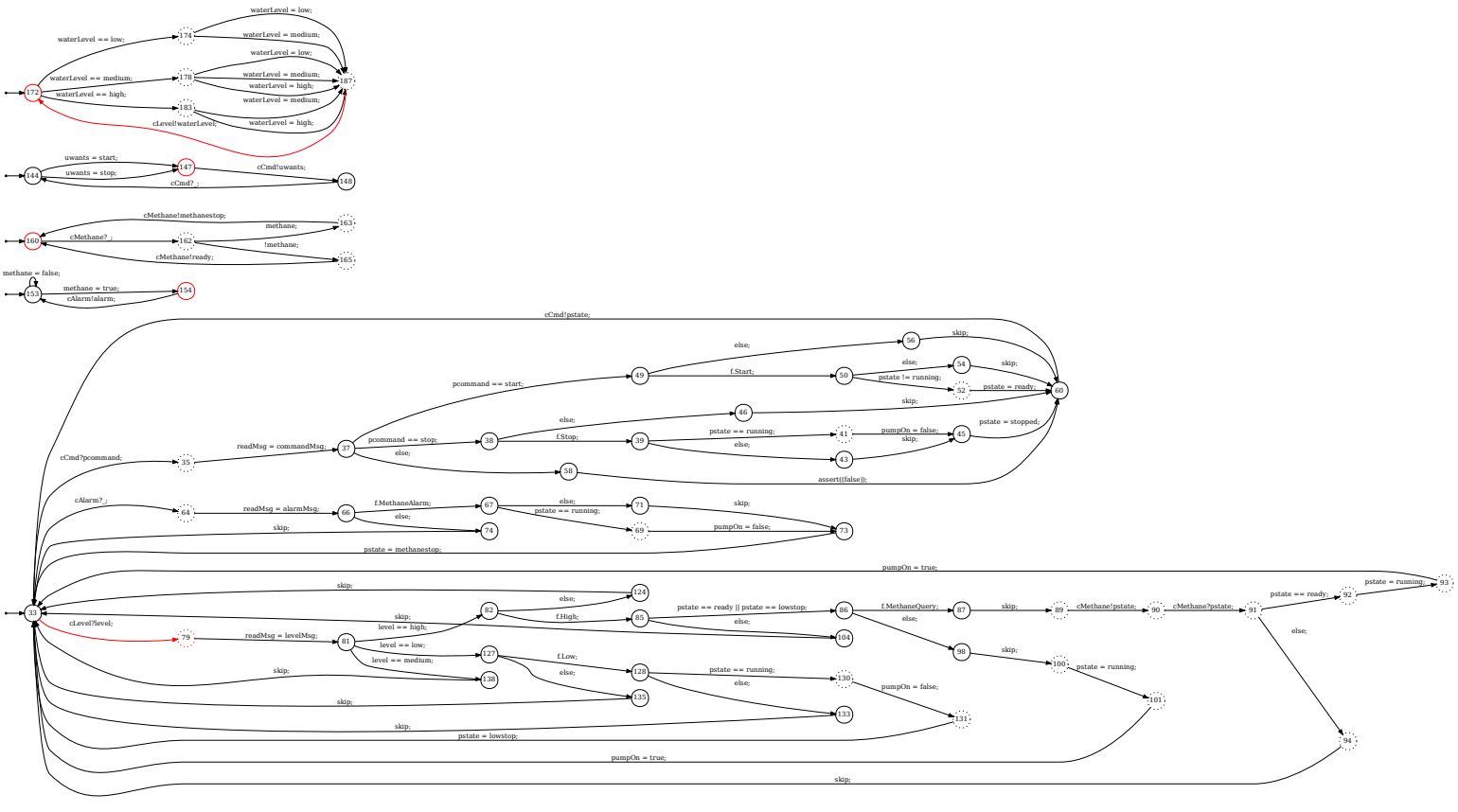
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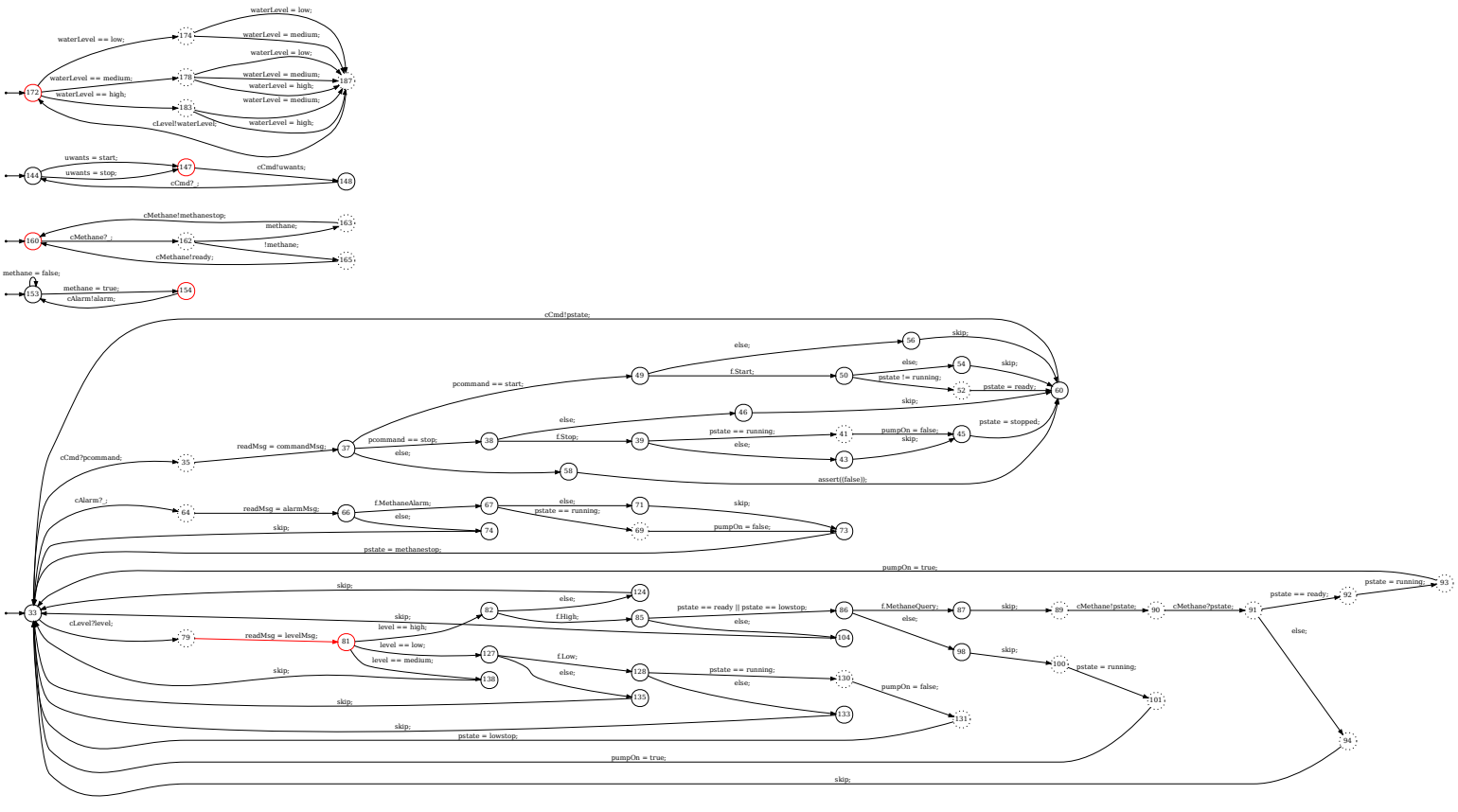
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pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
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69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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else;
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pumpOn = false;
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pumpOn = true;
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pstate == ready;
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pstate = running;
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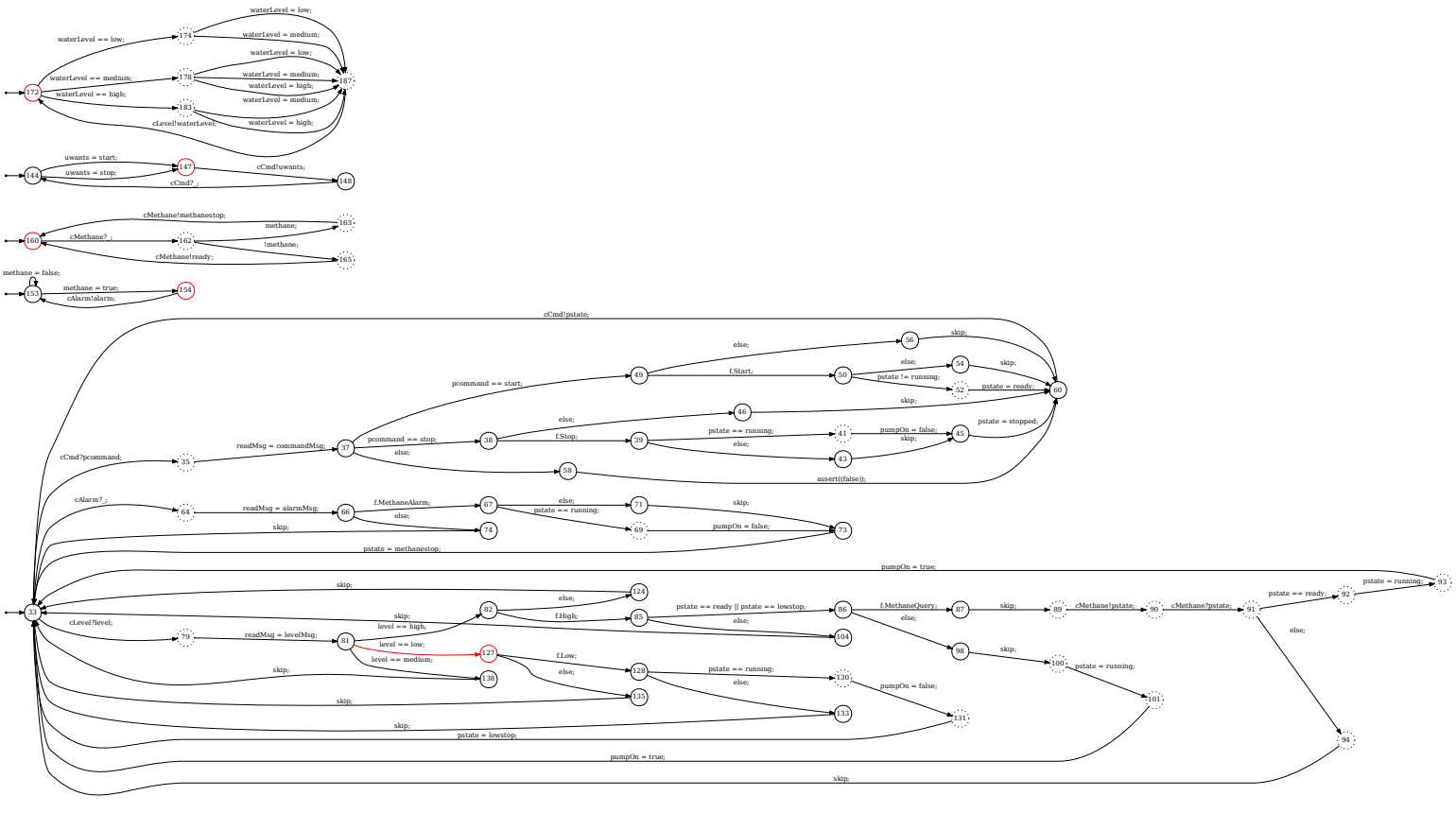
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waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
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43
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86
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85
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cLevel?level;
79
readMsg = levelMsg;
81
skip;
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level == medium;
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100
pstate = running;
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f.Low;
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skip;
pstate = lowstop;
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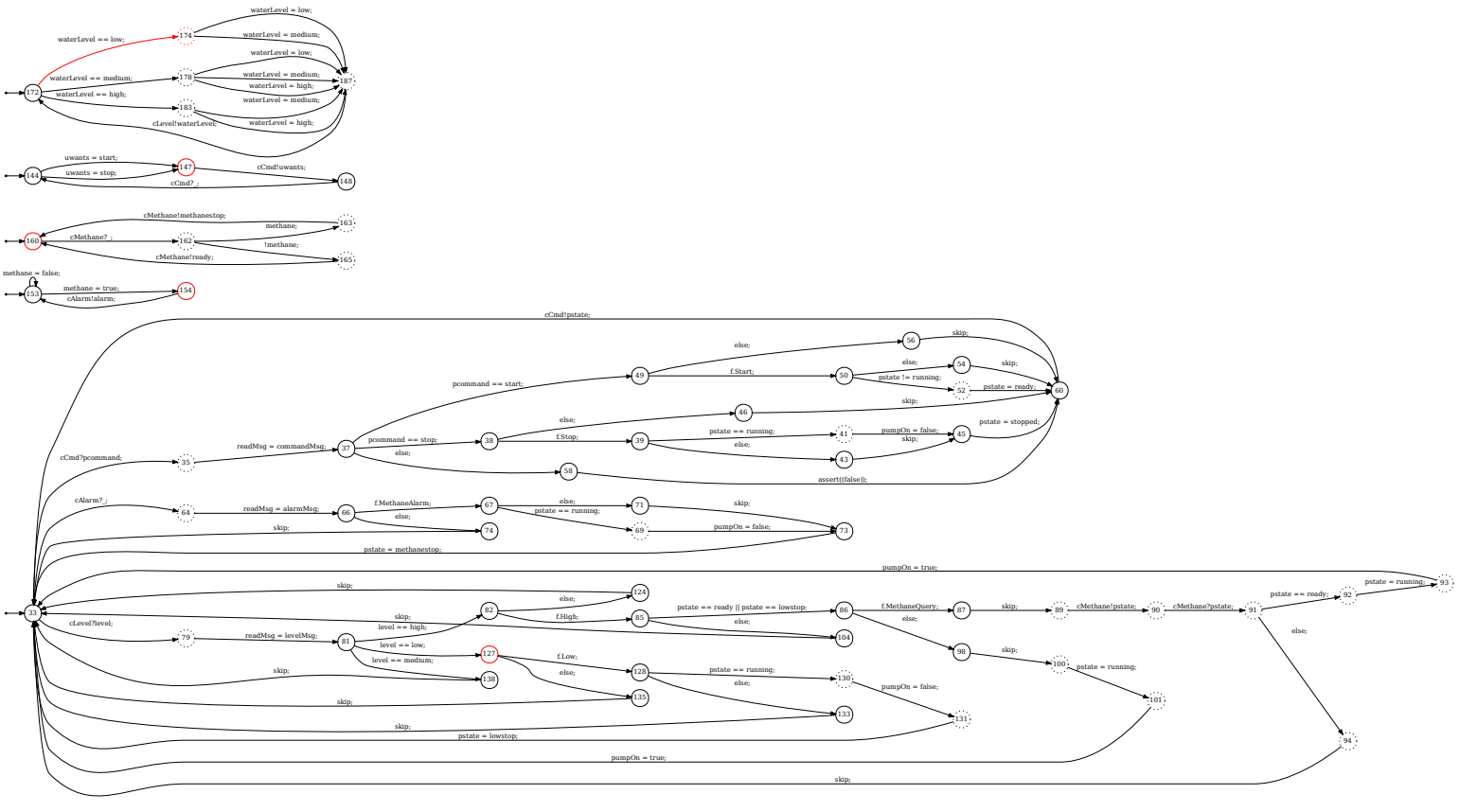
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
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methane = false;
153
methane = true;
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f.Start;
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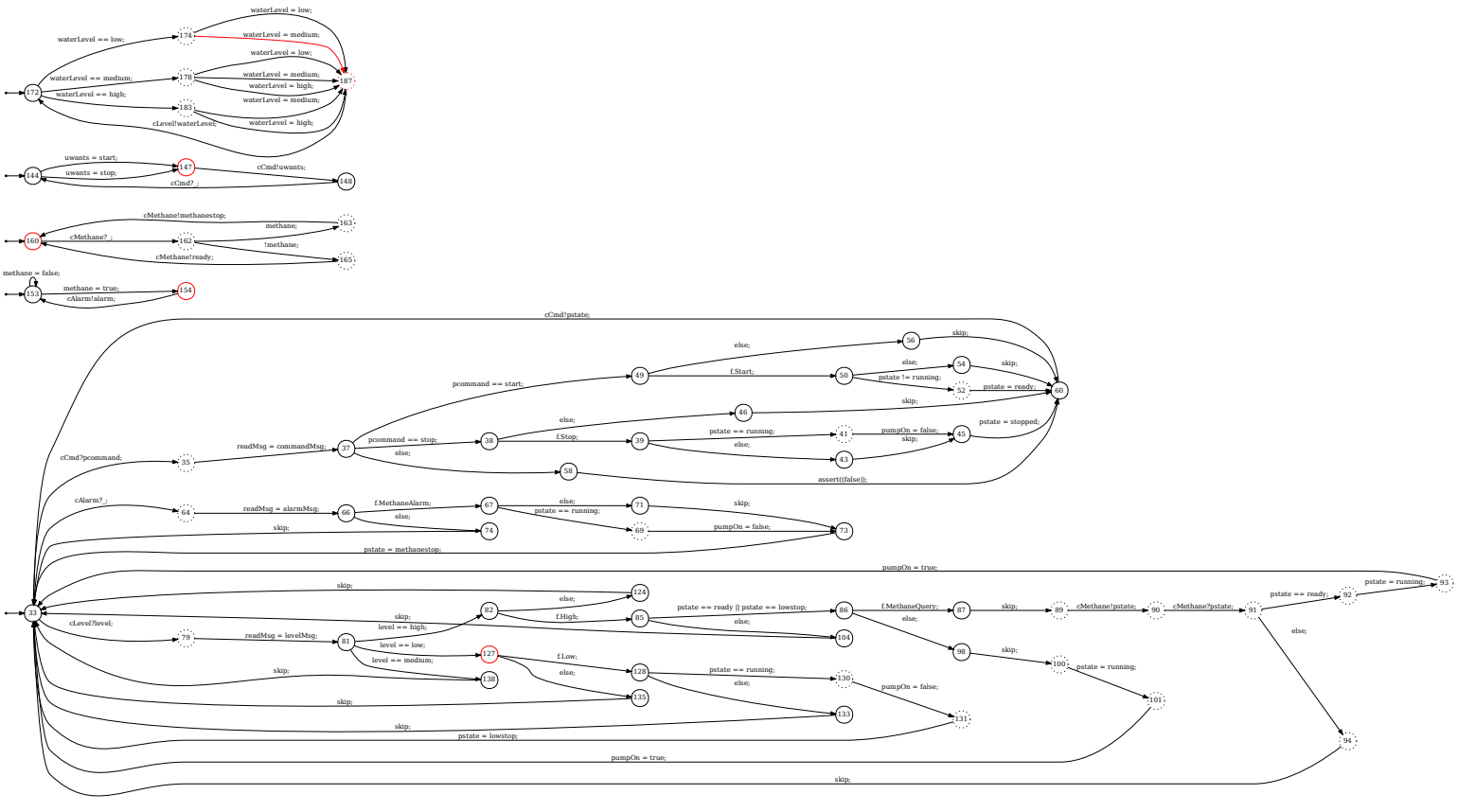
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waterLevel == high;
waterLevel = high;
waterLevel = medium;
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waterLevel = high;
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uwants = start;
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cCmd!uwants;
160
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cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
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methane = true;
cAlarm!alarm;
cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
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cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
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pstate == running;
skip;
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skip;
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cLevel?level;
readMsg = levelMsg;
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f.High;
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f.Low;
else;
pstate == ready || pstate == lowstop;
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f.MethaneQuery;
else;
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pstate = ready;
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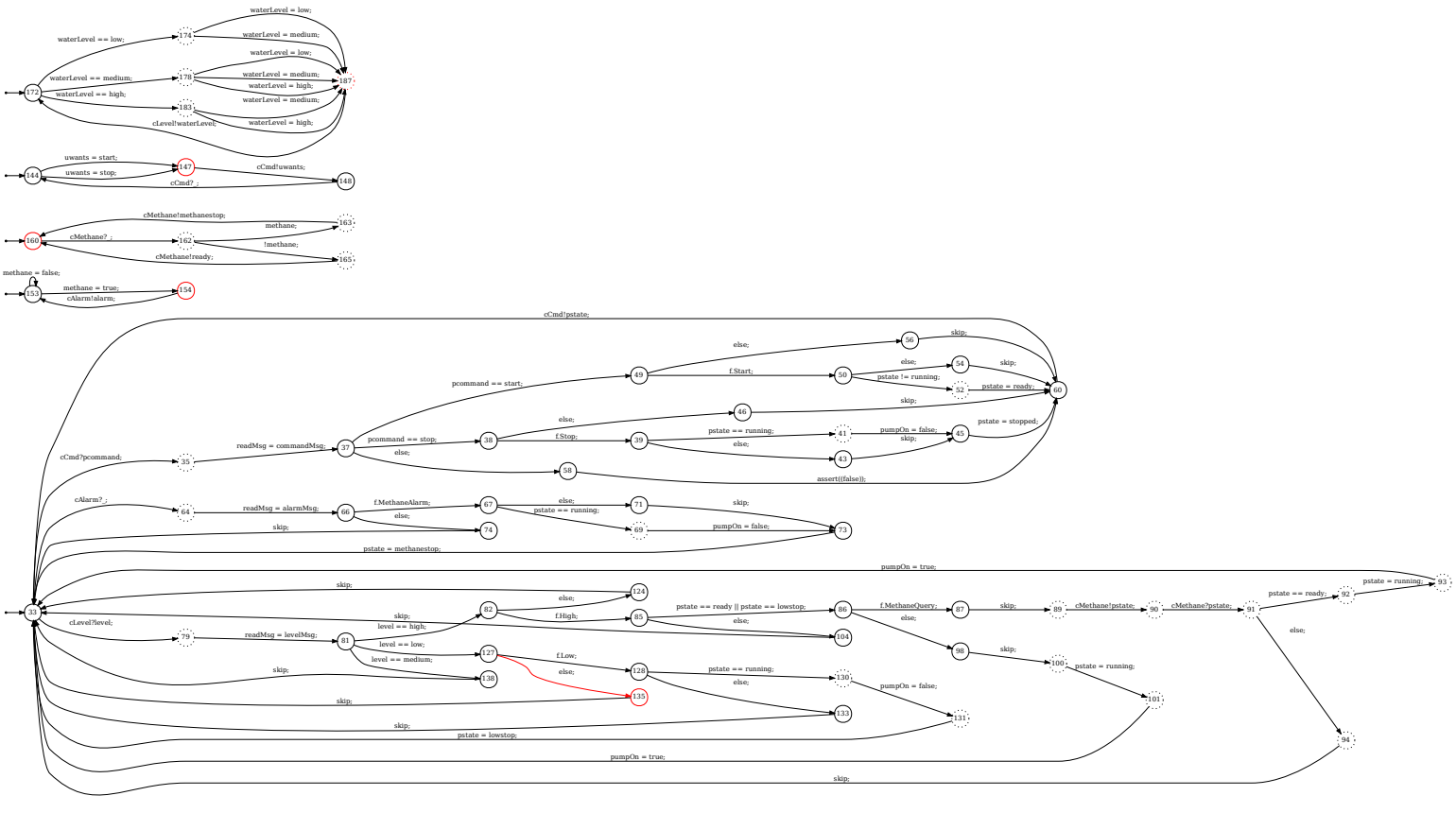
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!methane;
cMethane!ready;
153
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methane = true;
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cCmd!pstate;
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54
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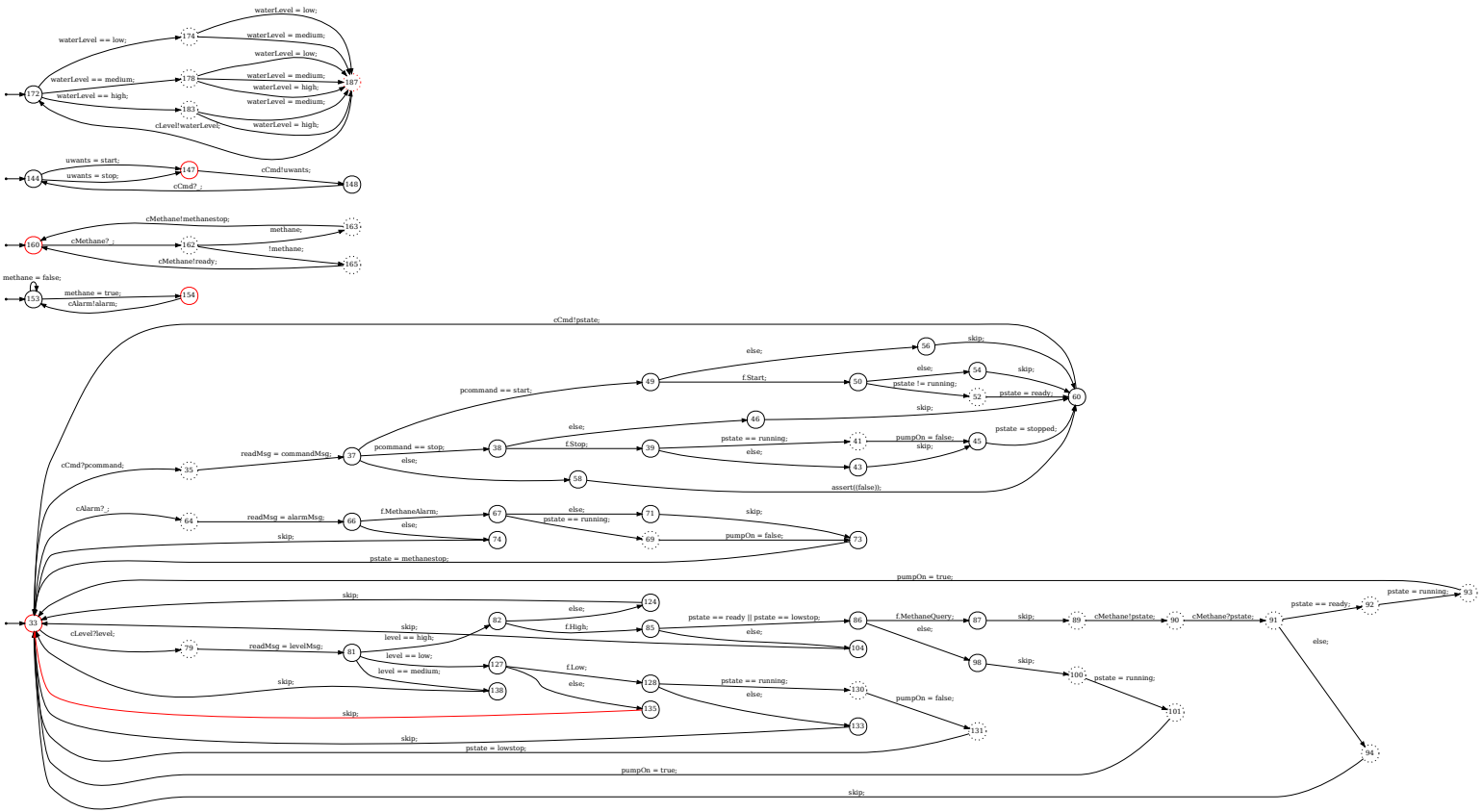
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
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waterLevel = high;
144
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uwants = stop;
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cCmd? ;
160
162
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cMethane!methanestop;
cMethane? ;
methane;
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154
methane = false;
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cAlarm!alarm;
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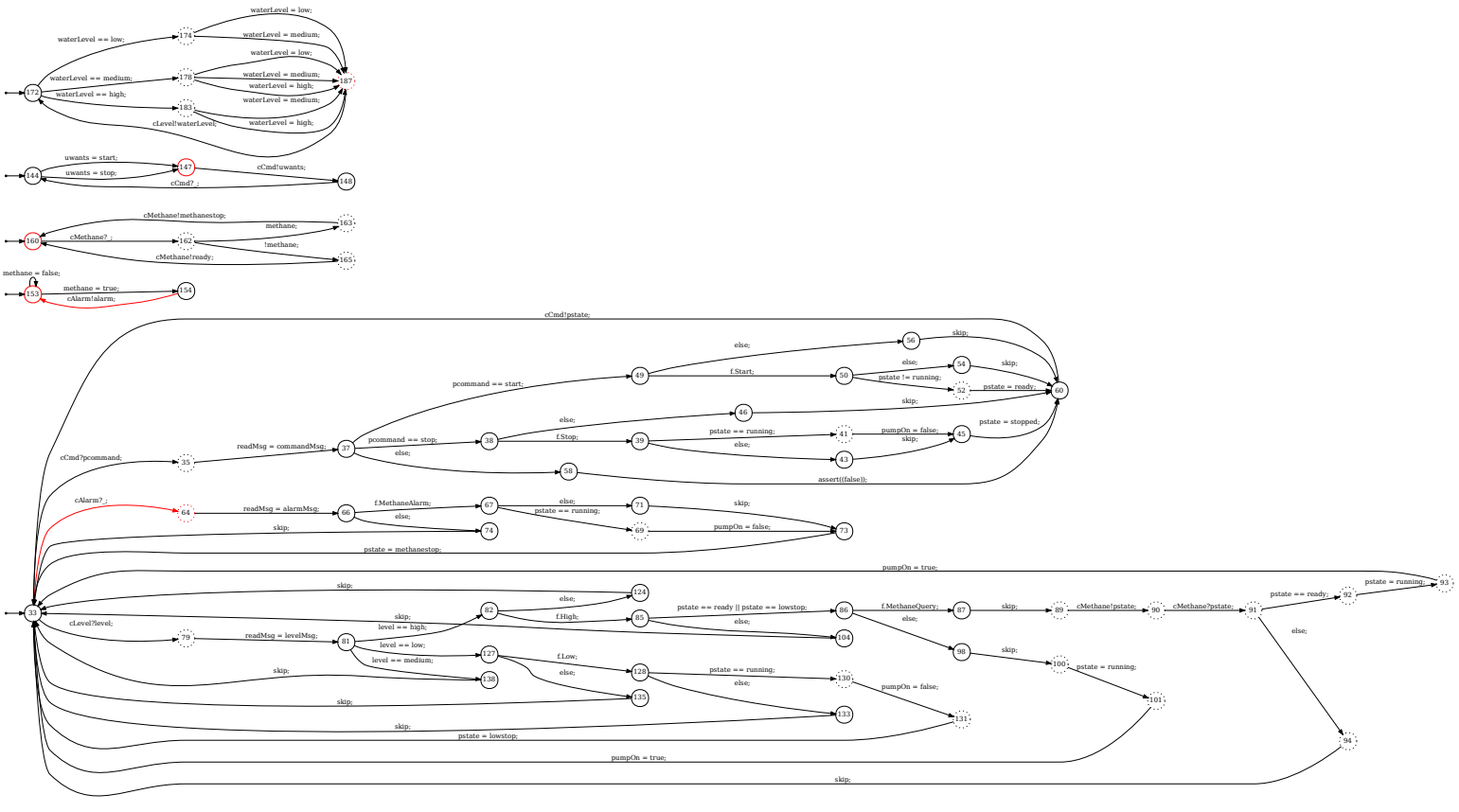
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waterLevel == low;
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waterLevel = low;
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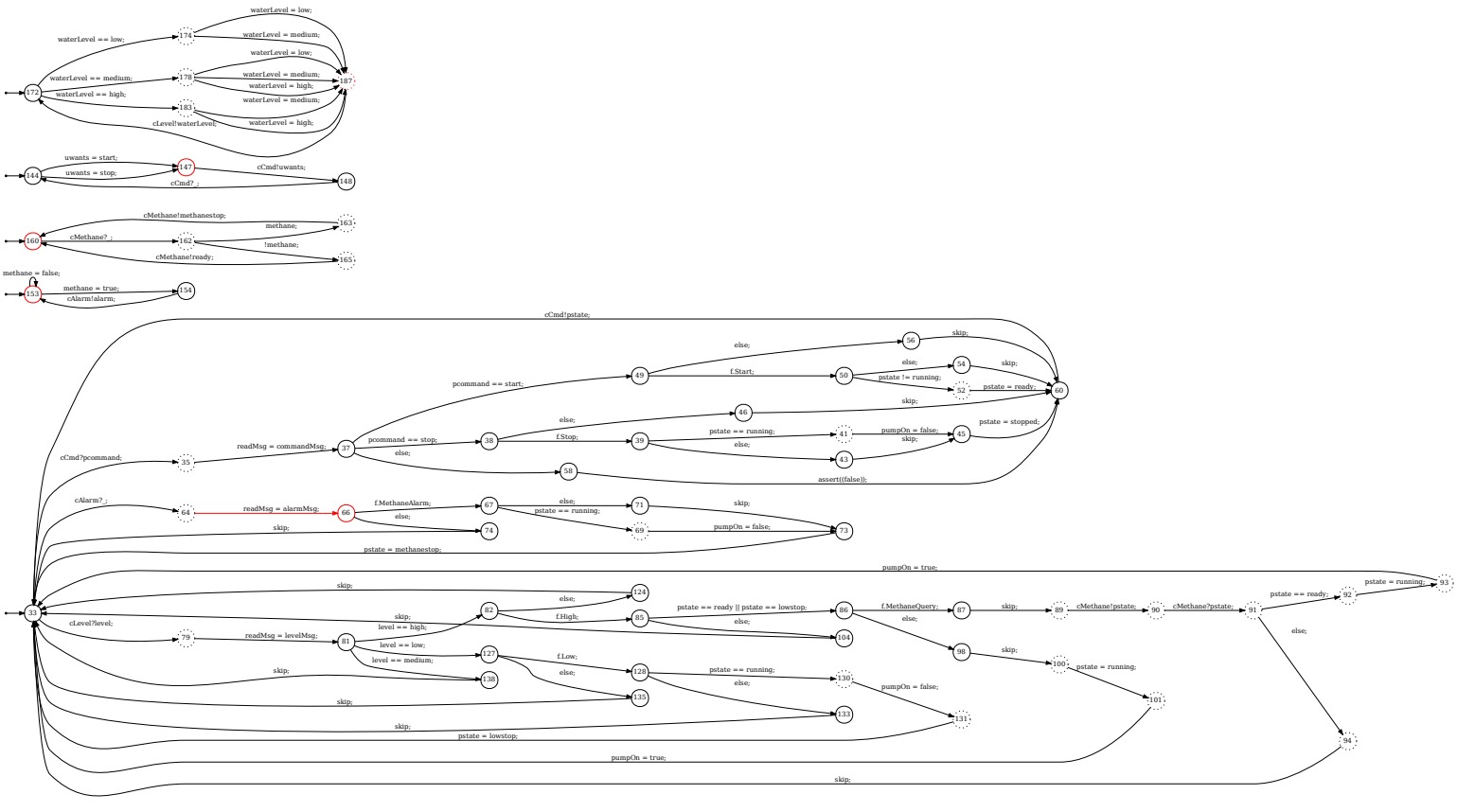
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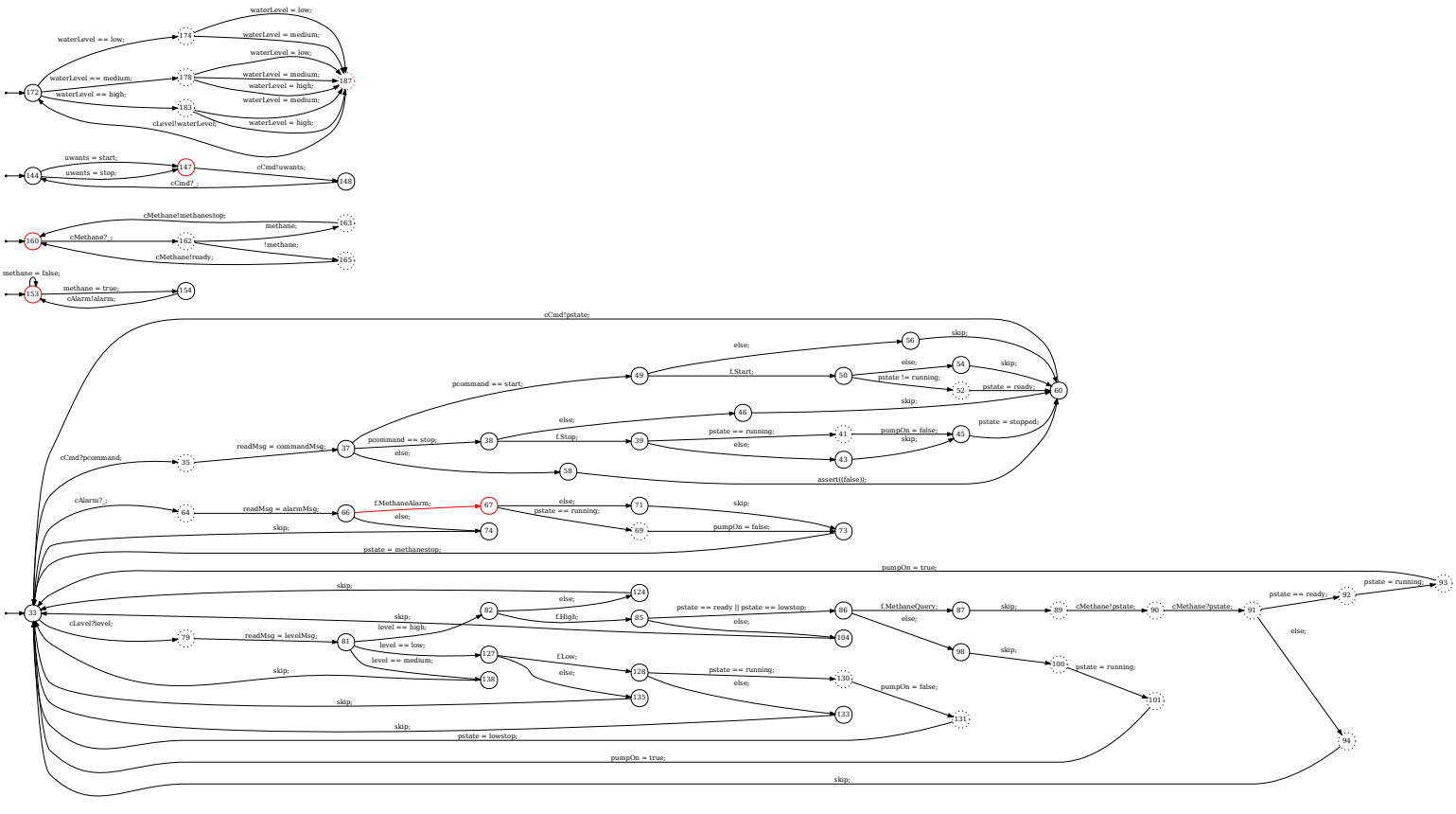
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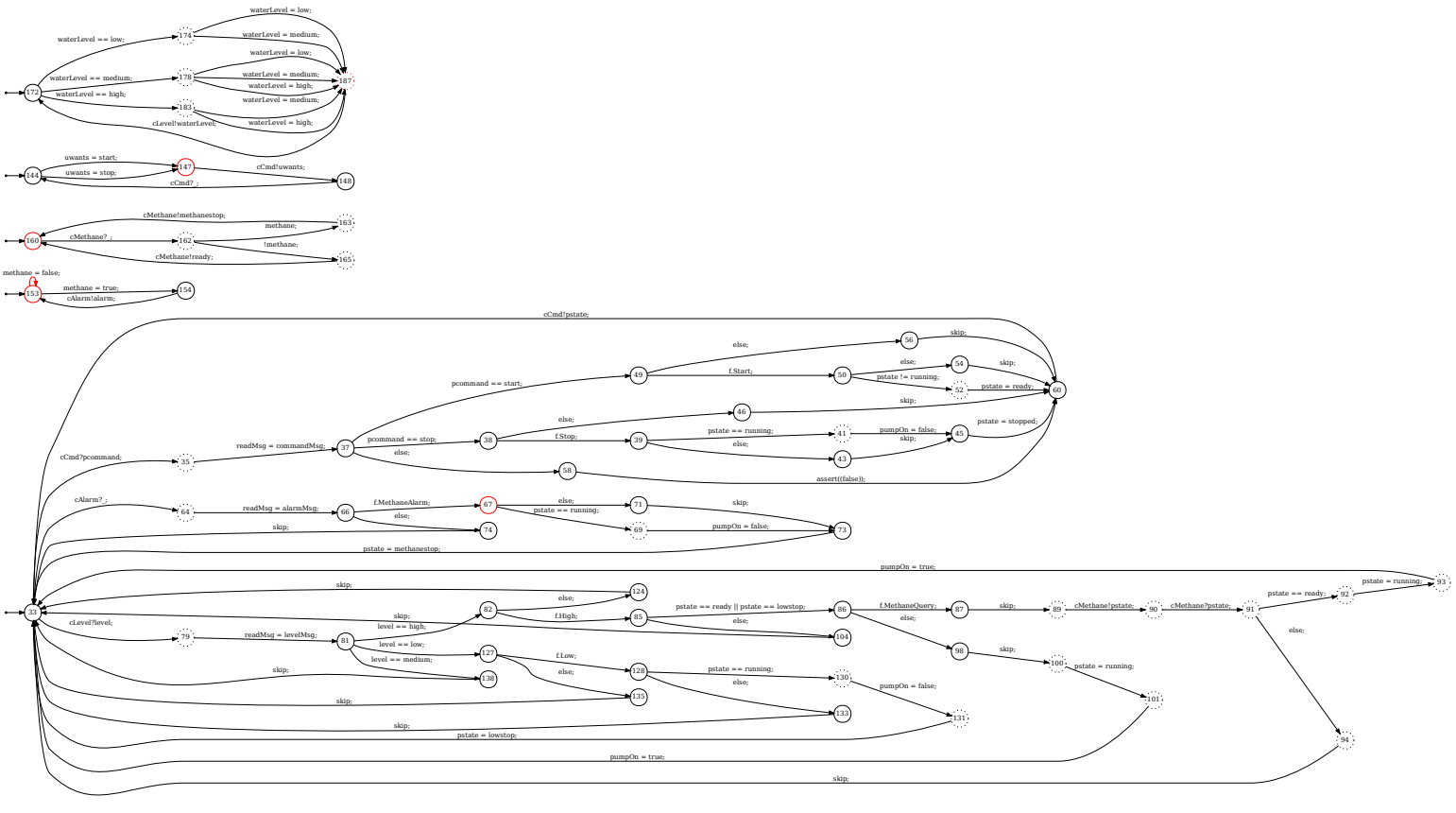
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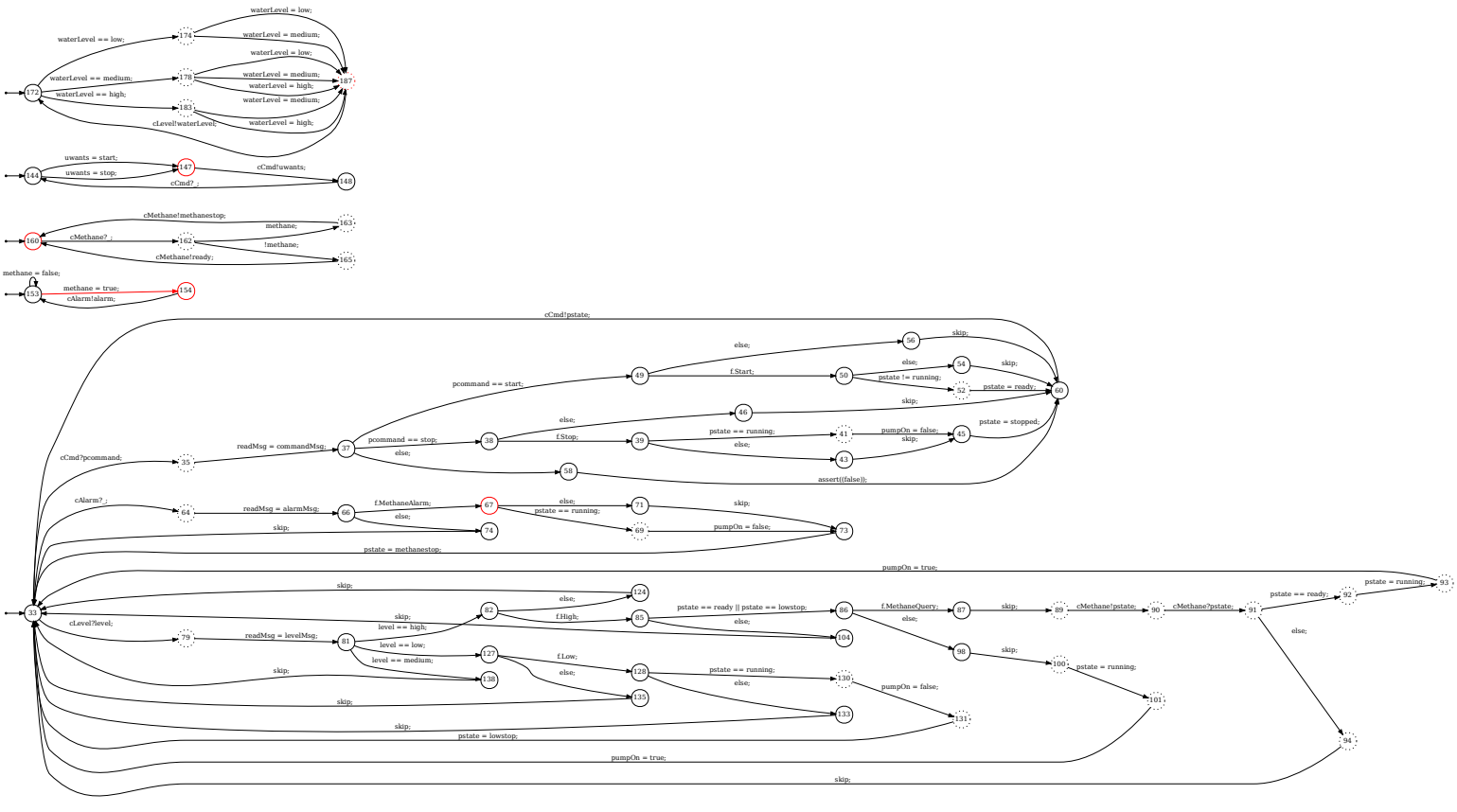
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
else;
130
pumpOn = false;
133
131
pstate = lowstop;
pumpOn = true;
skip;
92
pstate = ready;
93
94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waterLevel == low;
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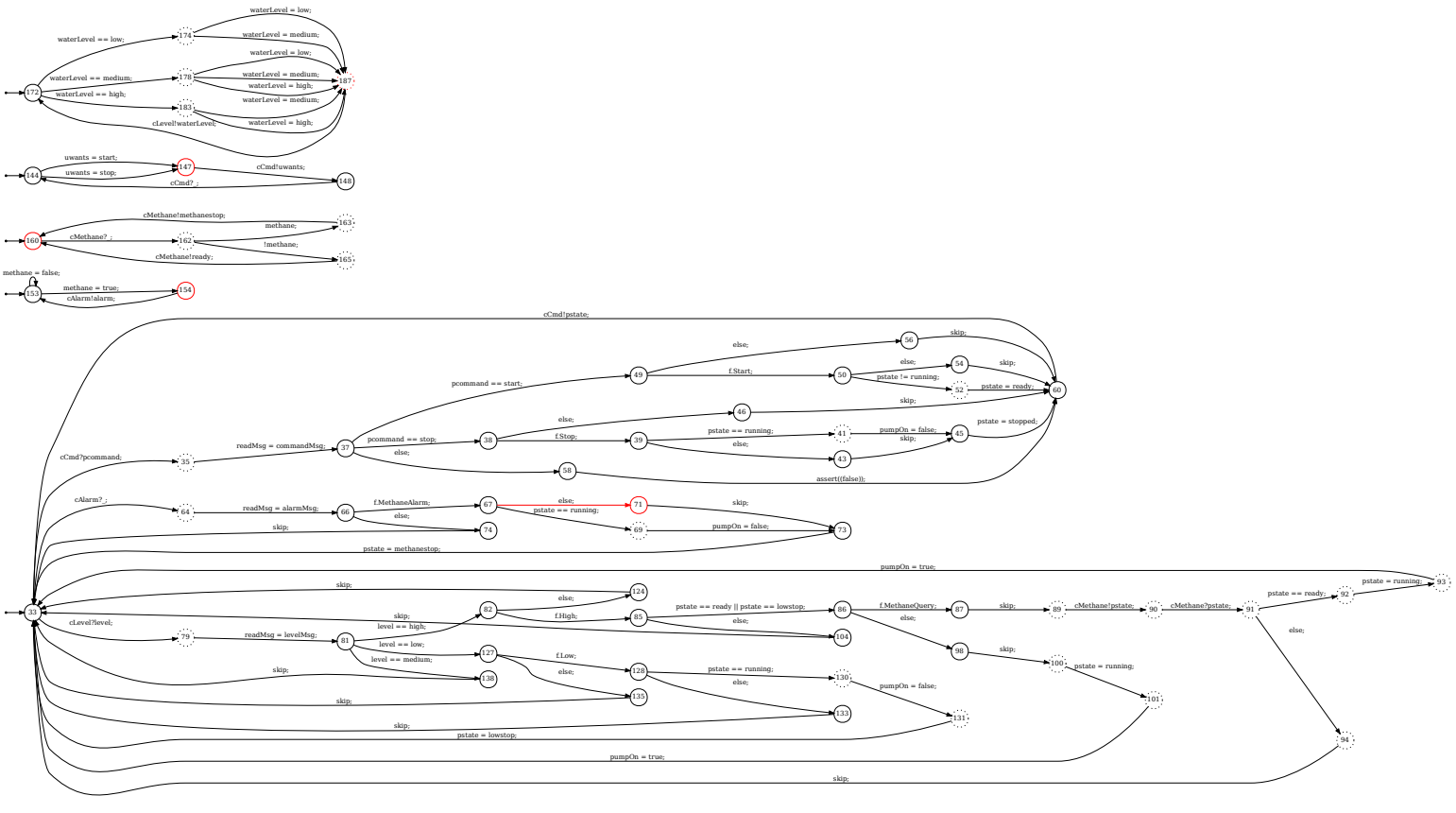
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
33
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86
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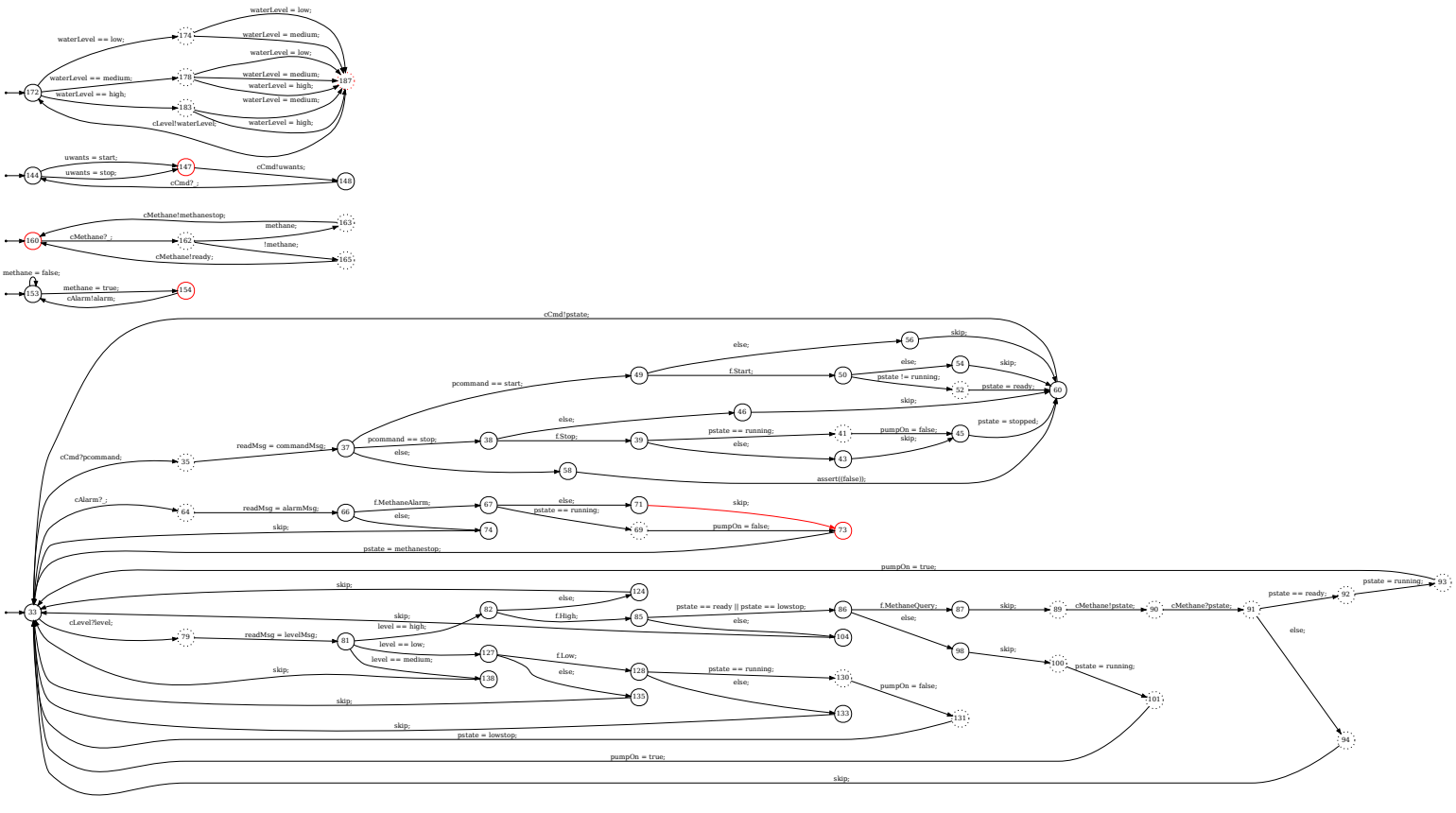
94
98
100
101
104
124
127
128
130
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
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69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
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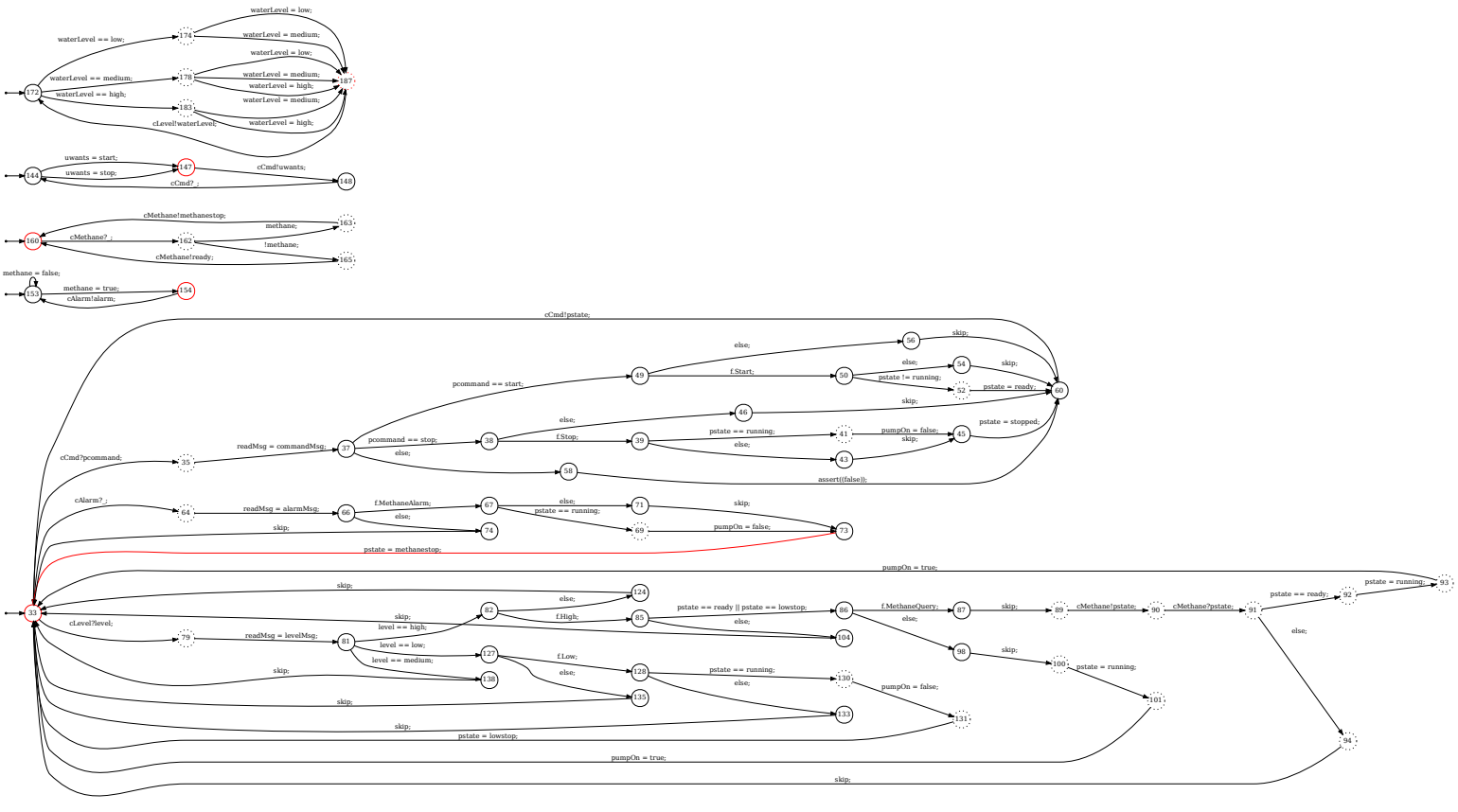
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel = medium;
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waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
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else;
pumpOn = false;
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skip;
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skip;
pstate = lowstop;
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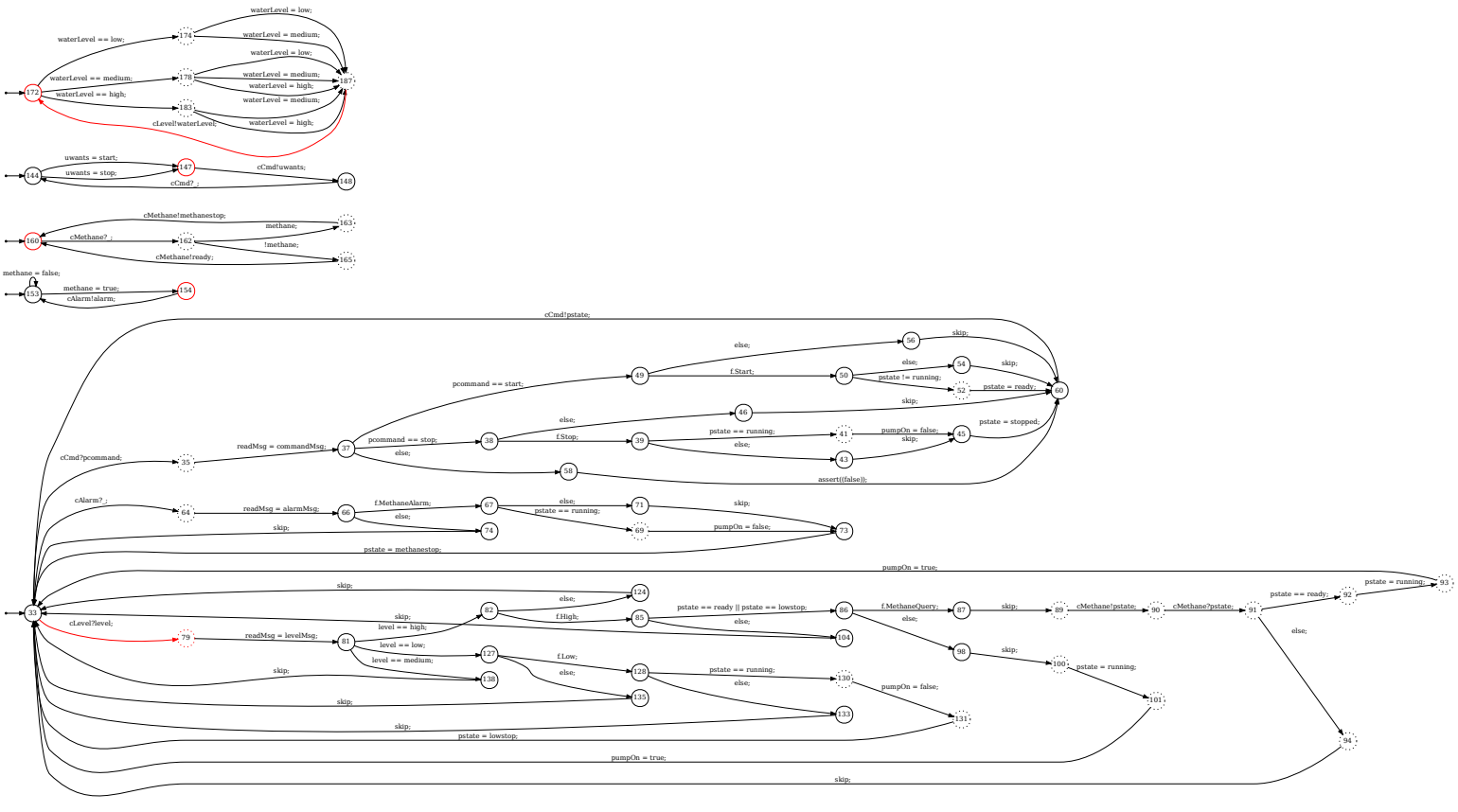
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
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else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
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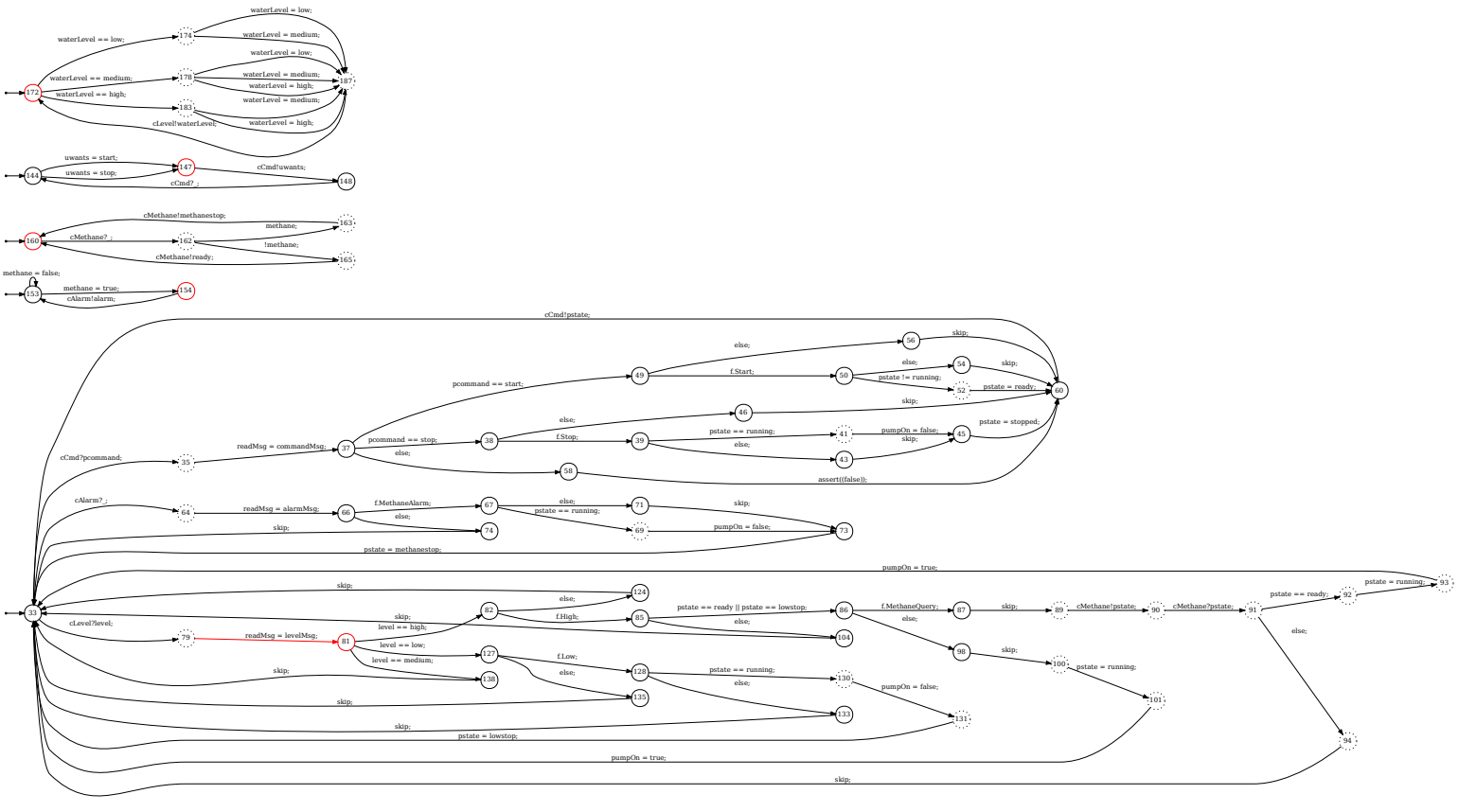
pumpOn = false;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
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cLevel?level;
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readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
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cMethane!pstate;
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cMethane?pstate;
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else;
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skip;
100
pstate = running;
101
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pumpOn = true;
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pstate == ready;
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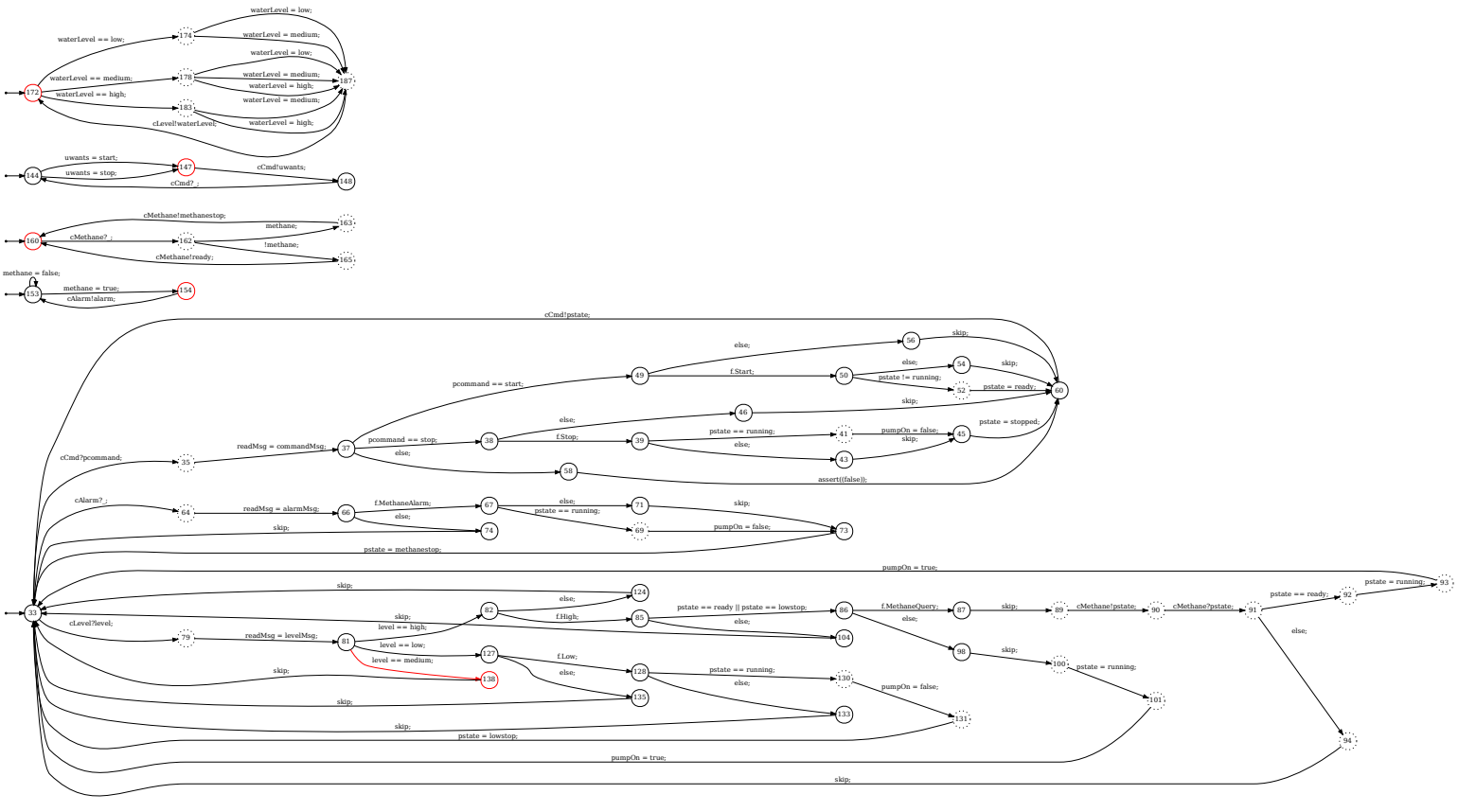
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waterLevel == low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
135
138
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
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pstate = running;
101
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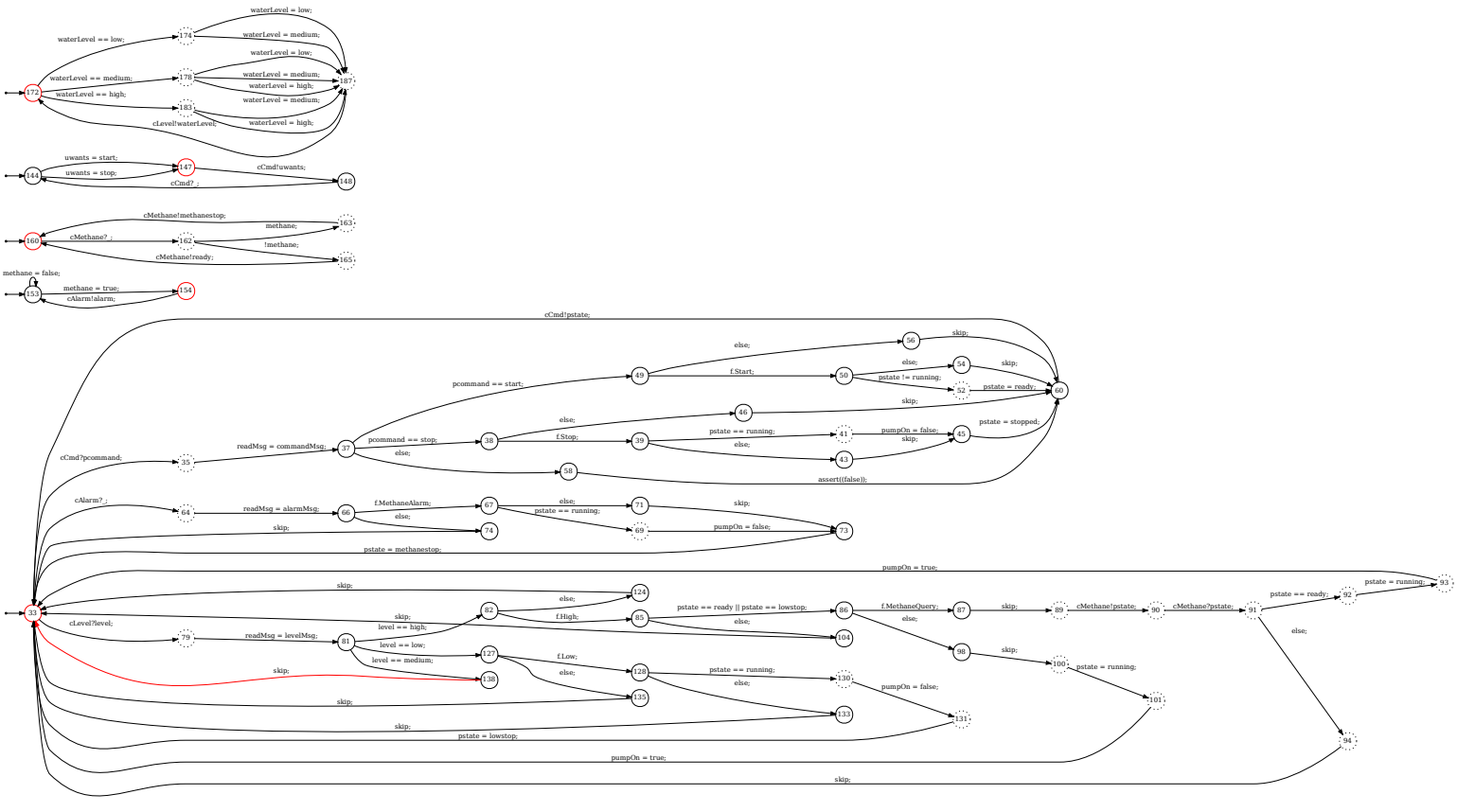
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
f.Stop;
39
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
133
131
138
135
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
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cMethane?pstate;
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else;
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skip;
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pstate = running;
101
94
pstate == ready;
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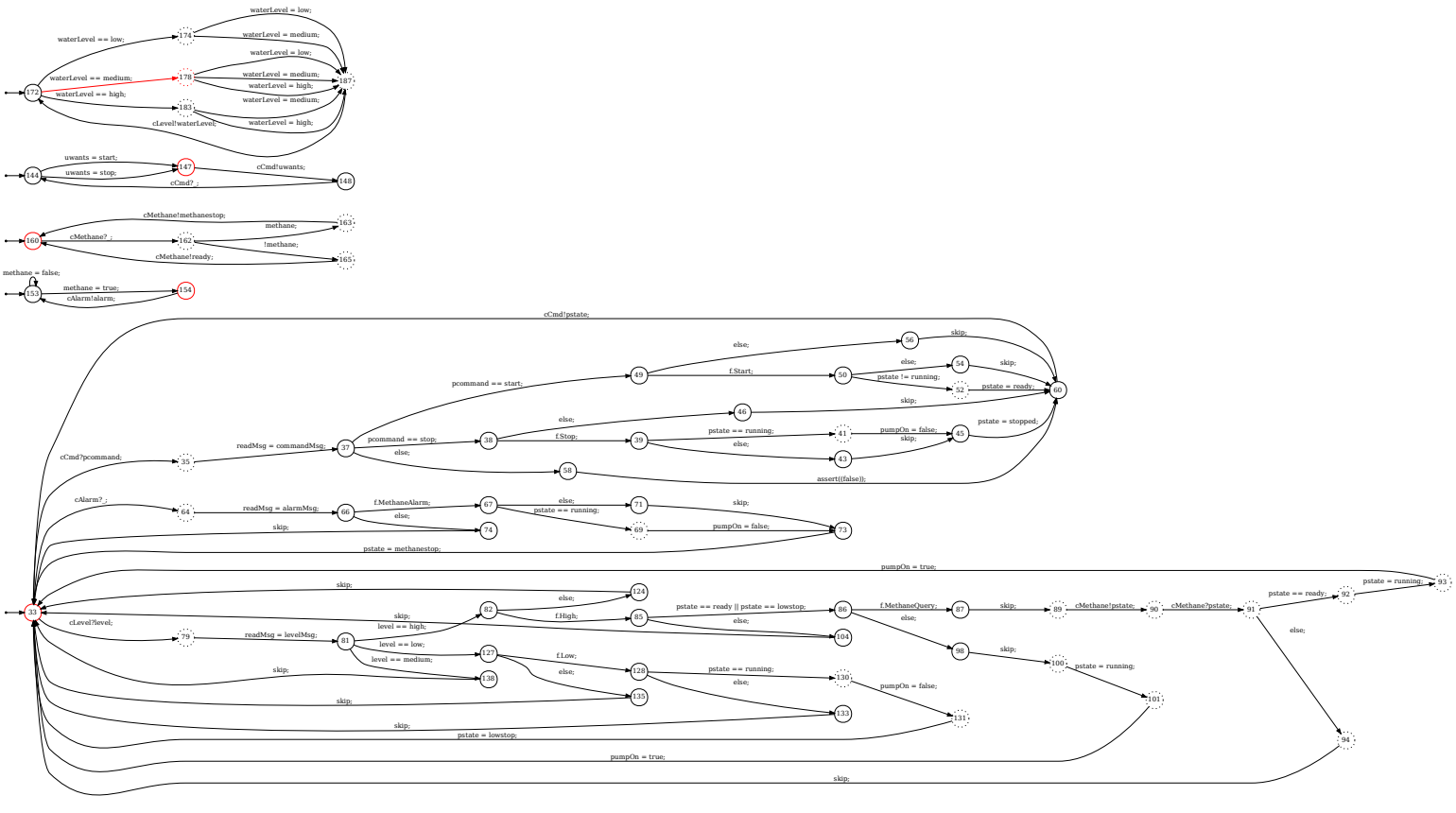
pstate = running;
93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waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
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methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
33
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56
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60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
64
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
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138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
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pstate == ready;
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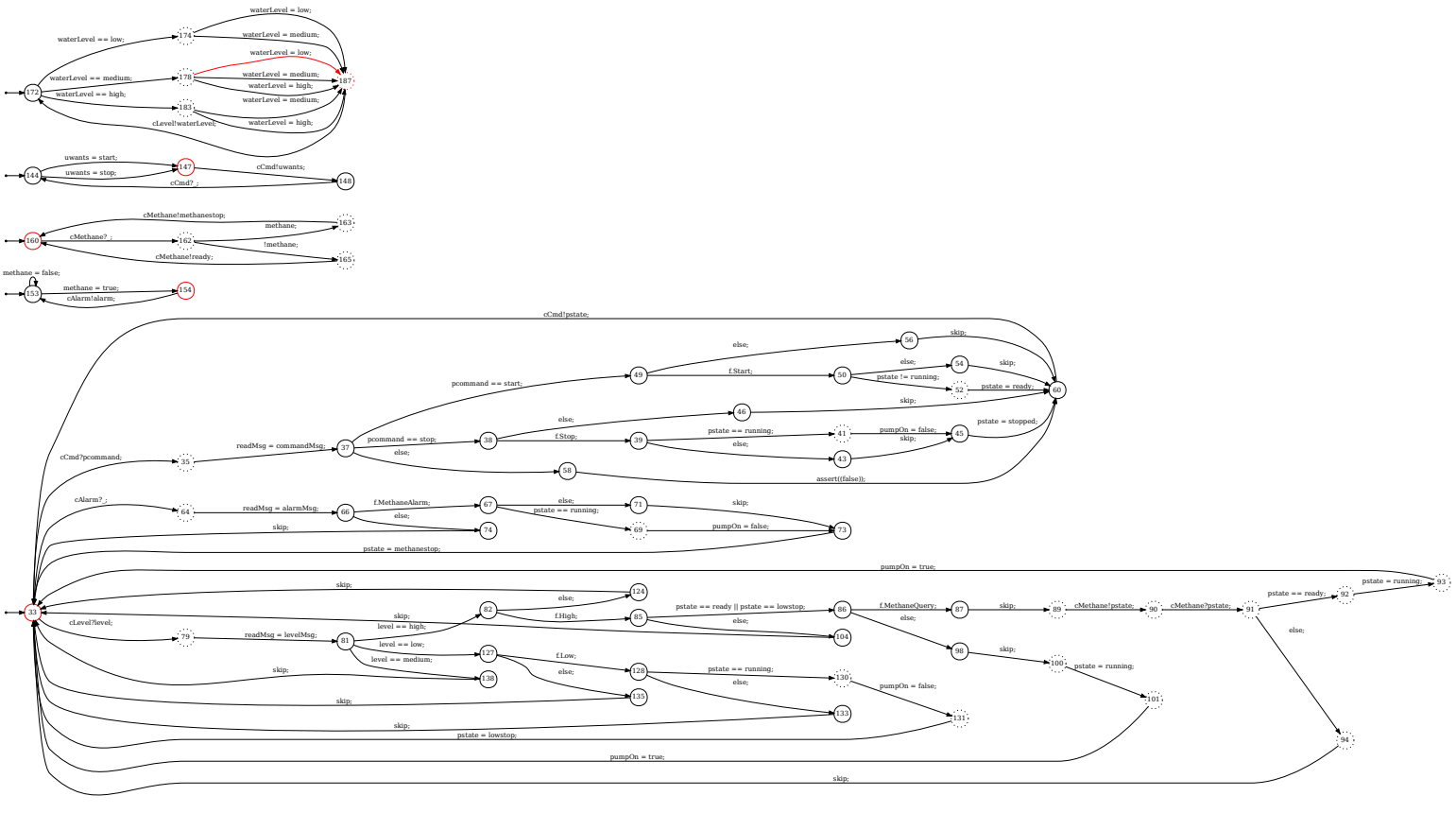
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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
f.Stop;
39
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
else;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
f.High;
else;
104
else;
98
skip;
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pstate = running;
101
level == low;
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f.Low;
else;
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pstate == running;
else;
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pstate = lowstop;
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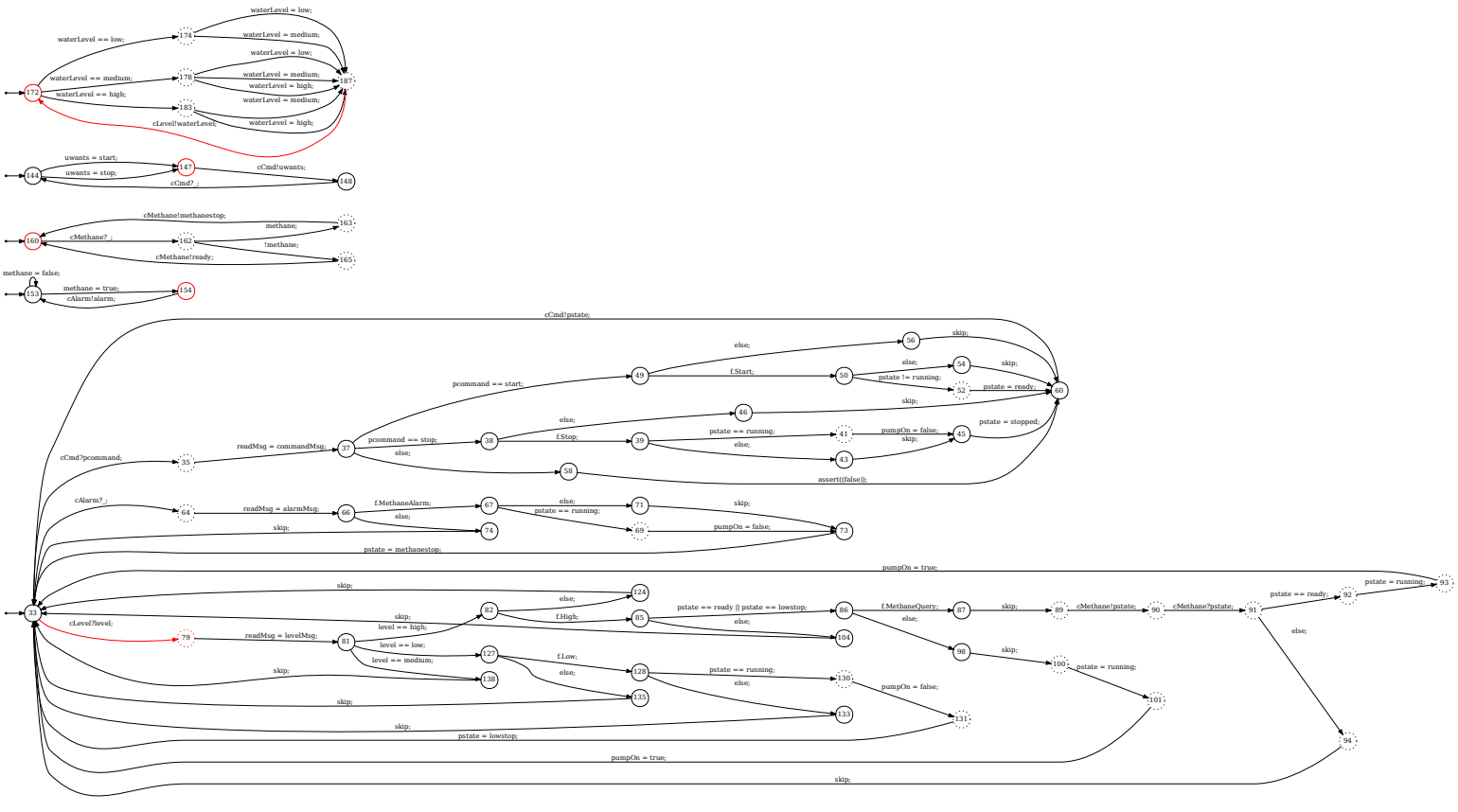
pumpOn = true;
skip;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waterLevel == low;
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waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
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160
162
163
165
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cMethane? ;
methane;
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153
154
methane = false;
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86
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91
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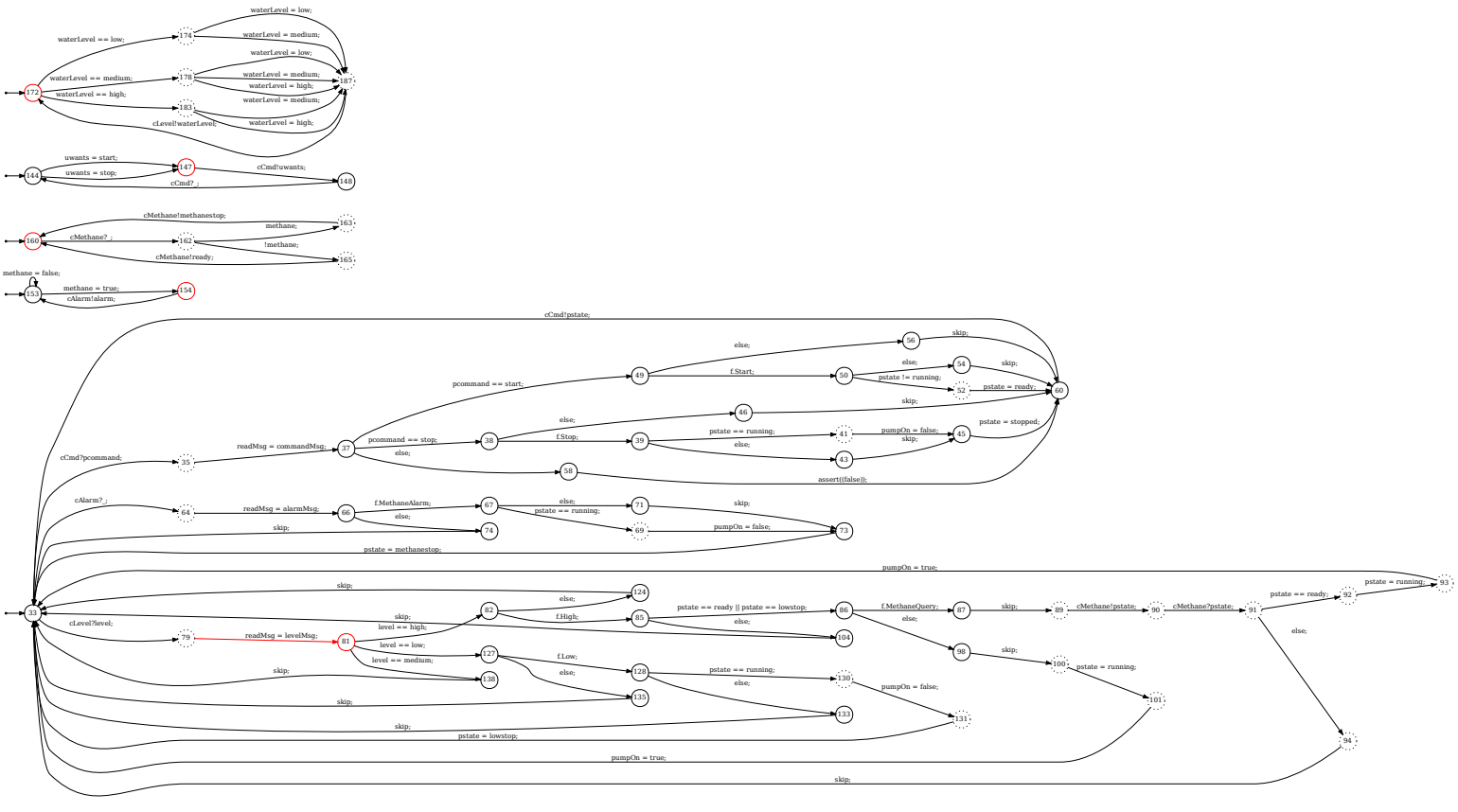
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assert((false));
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readMsg = commandMsg;
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64
readMsg = alarmMsg;
66
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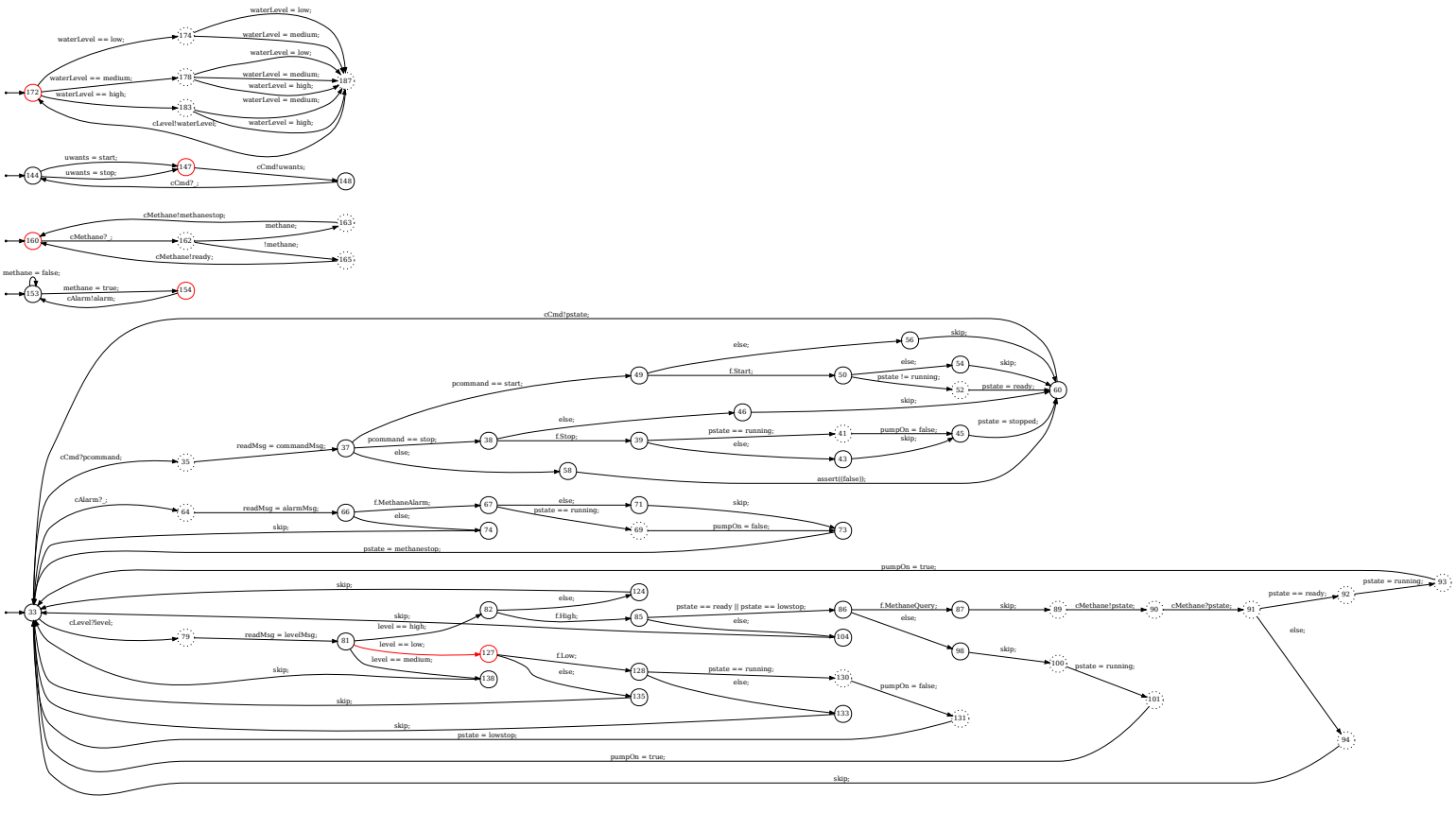
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54
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f.Start;
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pstate = ready;
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pcommand == start;
skip;
46
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38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
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skip;
else;
43
cCmd?pcommand;
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readMsg = commandMsg;
37
pcommand == stop;
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58
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readMsg = alarmMsg;
66
f.MethaneAlarm;
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skip;
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124
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pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
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92
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104
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79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
127
level == medium;
98
skip;
100
pstate = running;
101
skip;
138
f.Low;
else;
128
pstate == running;
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pstate = lowstop;
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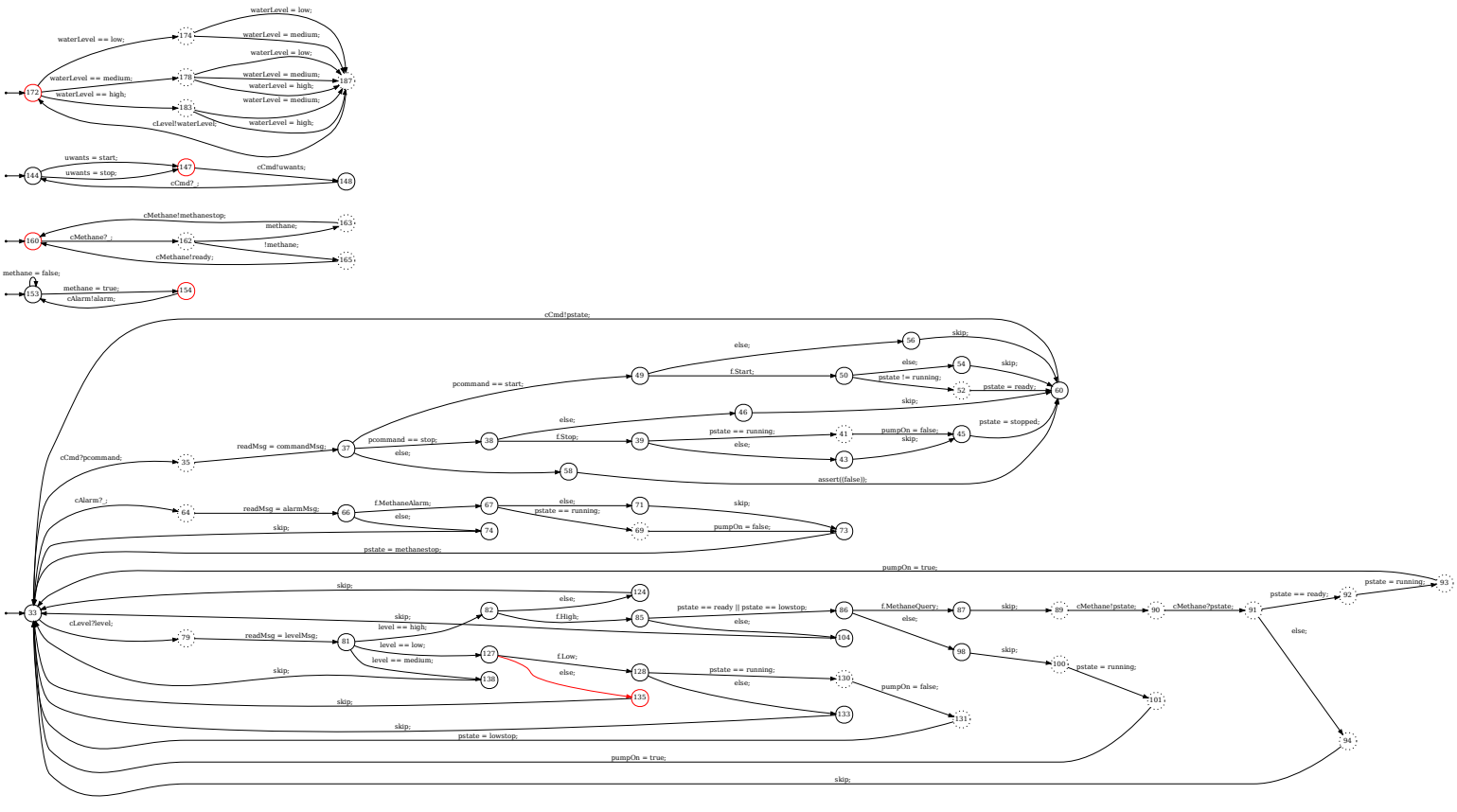
skip;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waterLevel == low;
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148
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162
163
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154
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methane = true;
cAlarm!alarm;
cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
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cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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skip;
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else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
skip;
f.Low;
else;
skip;
skip;
pstate == ready || pstate == lowstop;
else;
else;
pstate == running;
else;
pumpOn = false;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
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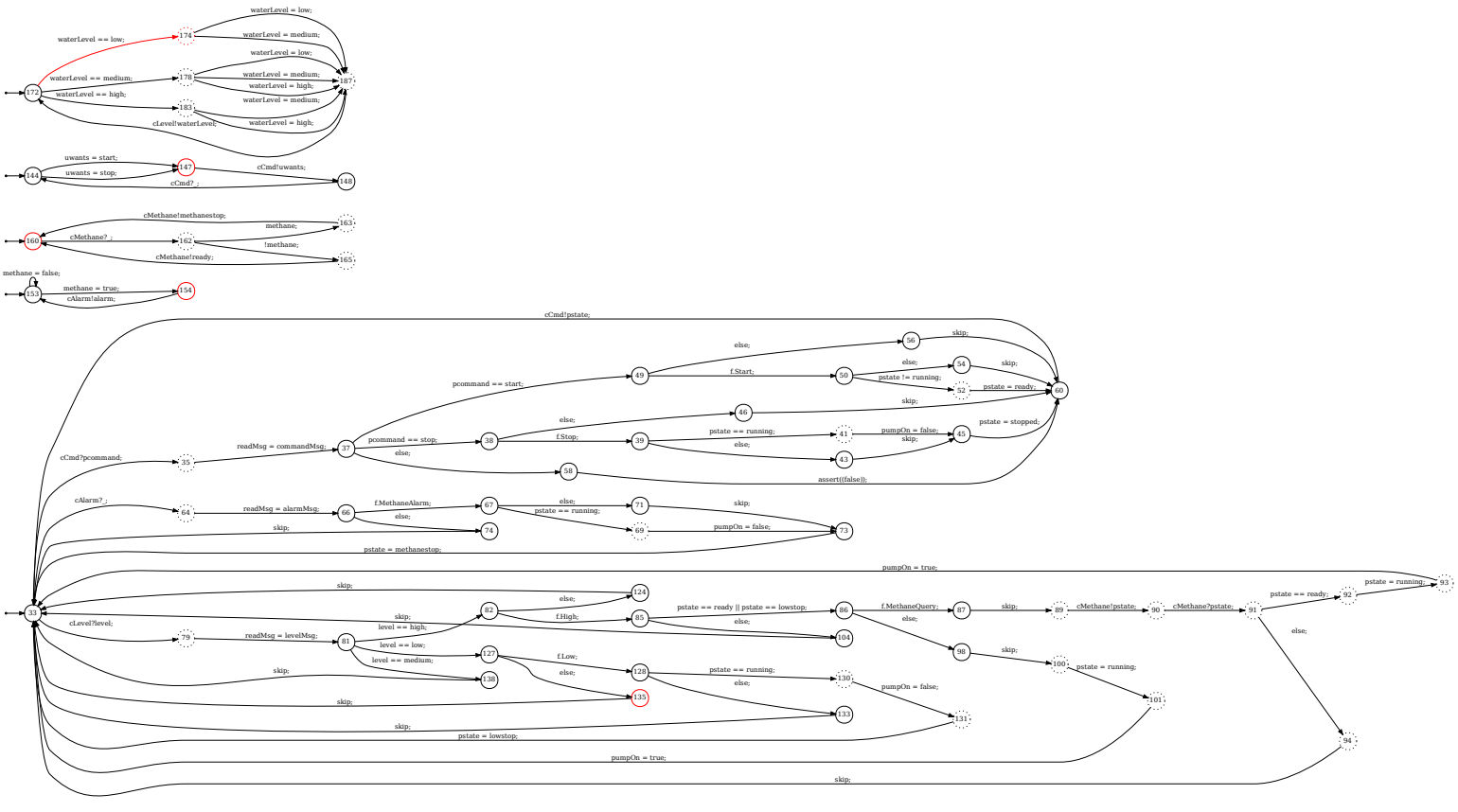
skip;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waterLevel = low;
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waterLevel == medium;
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waterLevel = low;
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waterLevel = high;
waterLevel == high;
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138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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skip;
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cMethane!pstate;
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cMethane?pstate;
91
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skip;
100
pstate = running;
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pstate == running;
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pstate = lowstop;
pumpOn = true;
skip;
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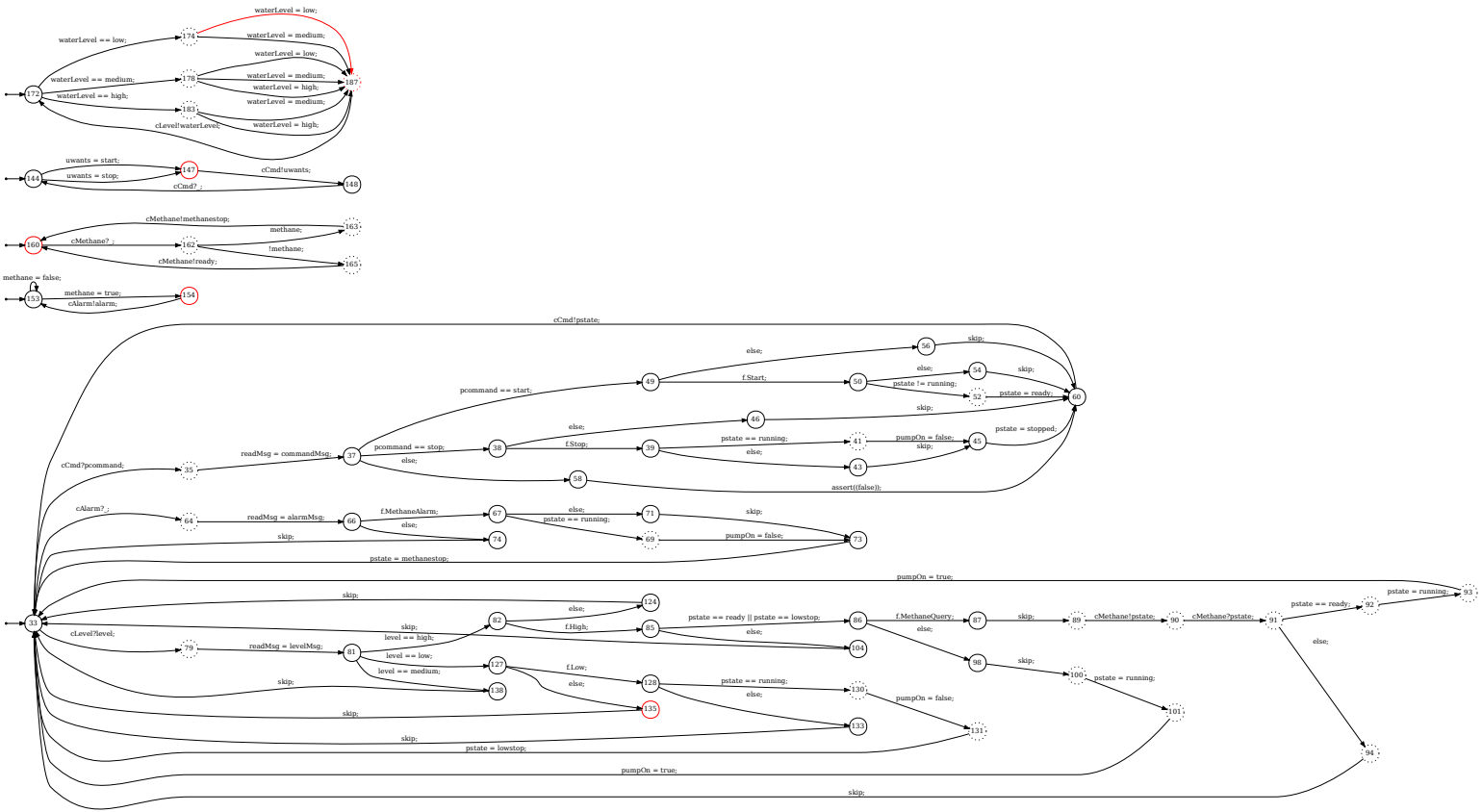
pstate = running;
93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waterLevel == high;
183
waterLevel = medium;
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uwants = start;
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147
cCmd!uwants;
uwants = stop;
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cMethane!methanestop;
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160
cMethane? ;
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methane;
!methane;
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methane = false;
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56
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49
f.Start;
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else;
cLevel?level;
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level == high;
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else;
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else;
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79
readMsg = levelMsg;
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level == low;
level == medium;
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f.Low;
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pstate == running;
else;
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pumpOn = false;
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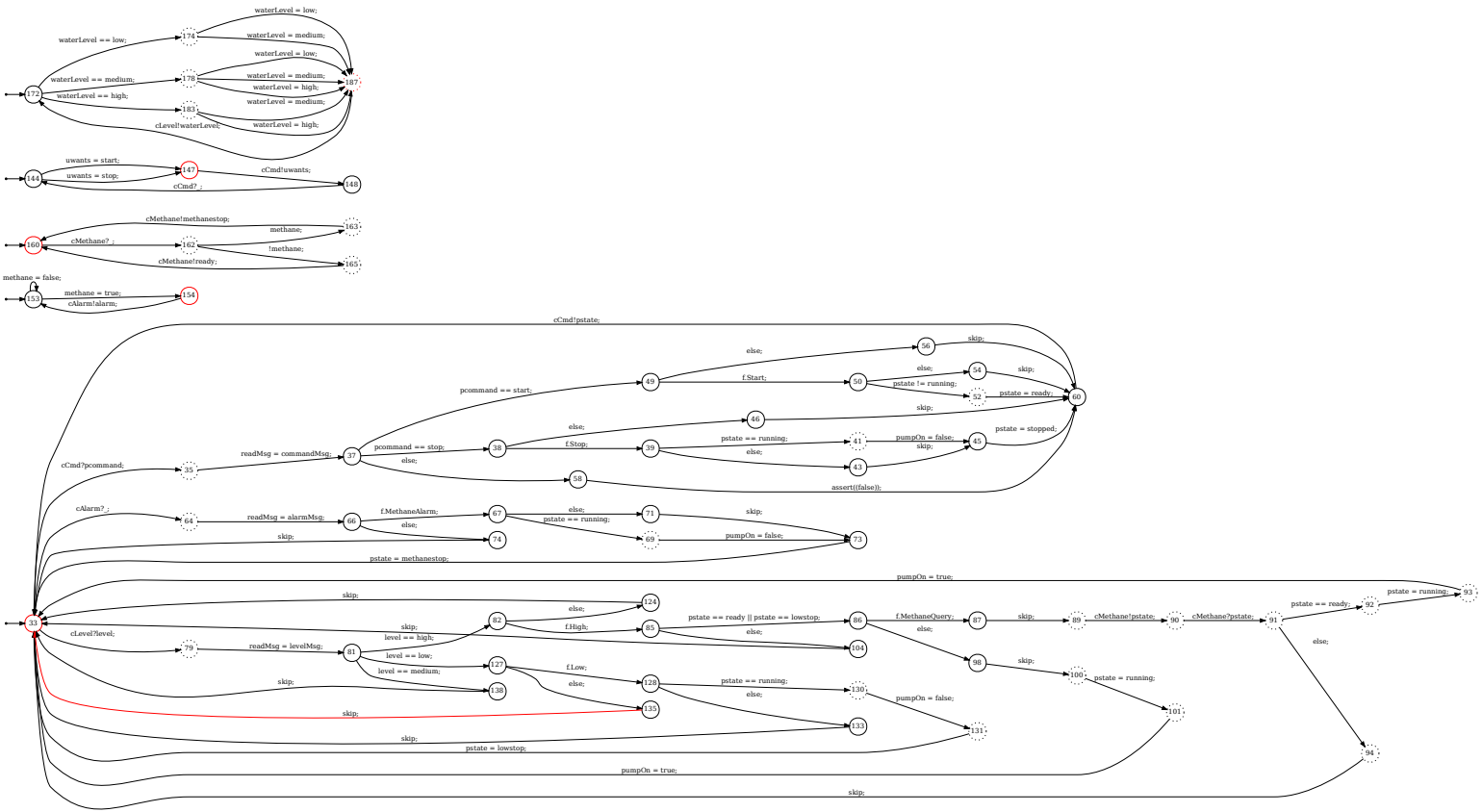
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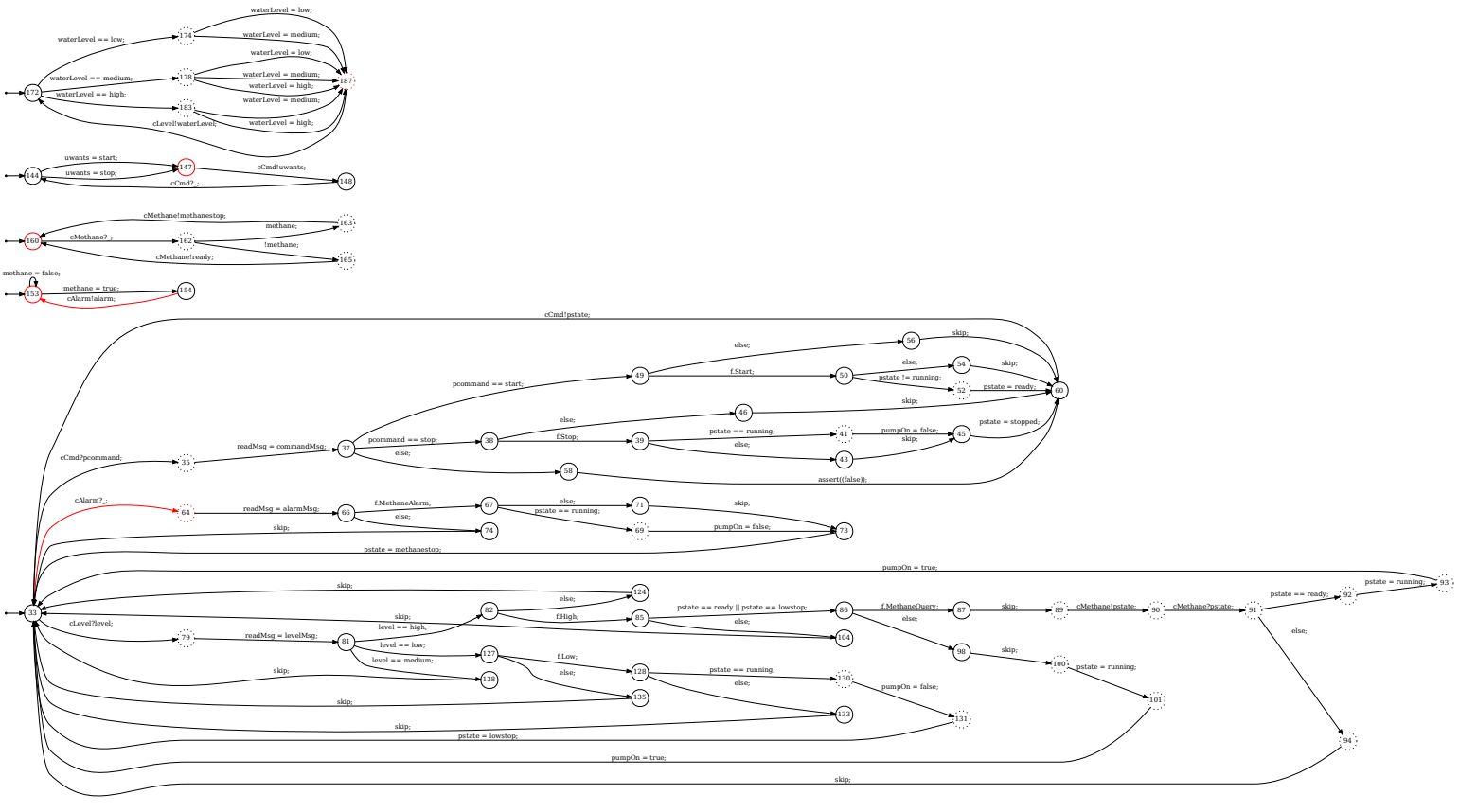
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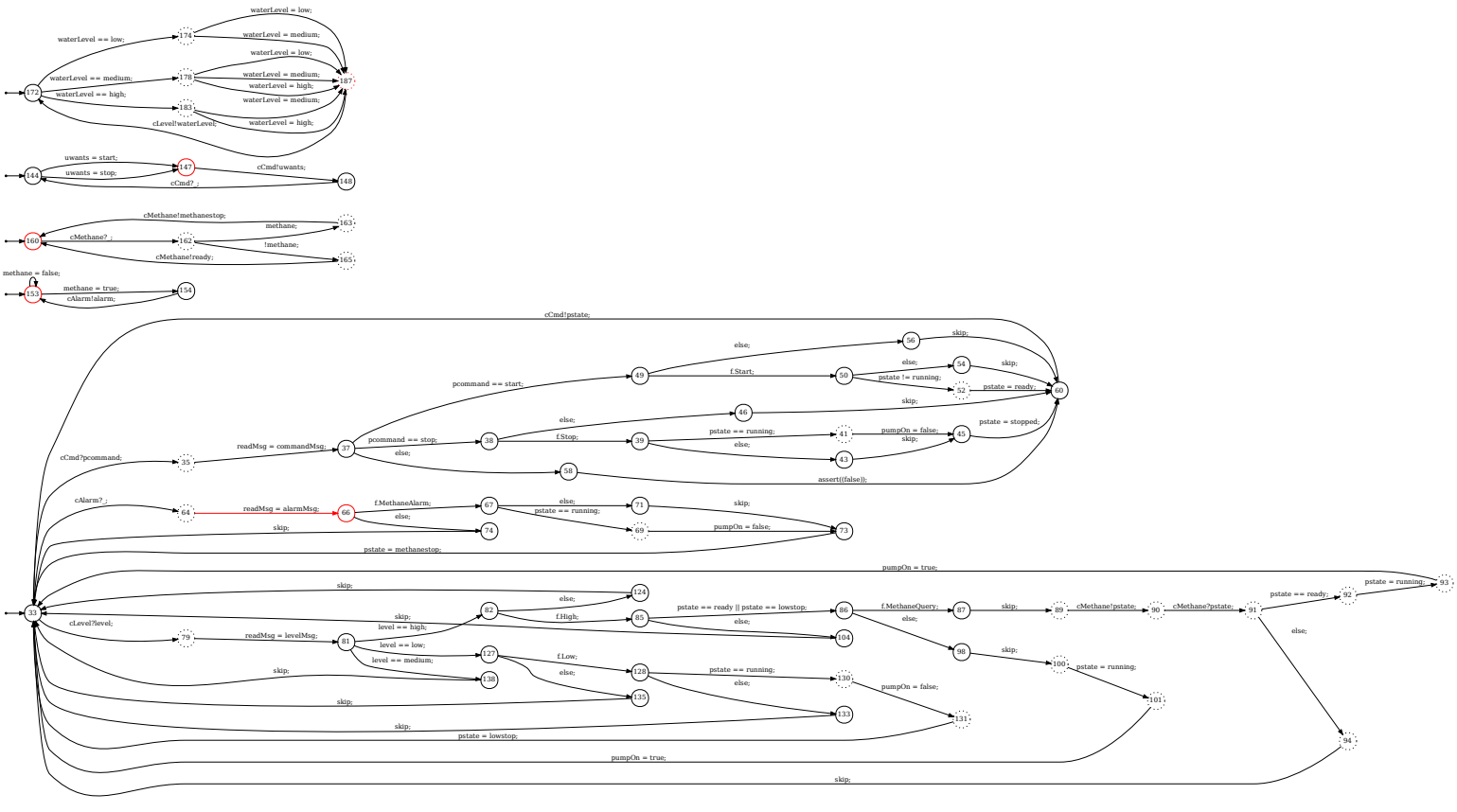
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153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pumpOn = false;
skip;
f.Stop;
39
pstate == running;
else;
43
38
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
else;
104
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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skip;
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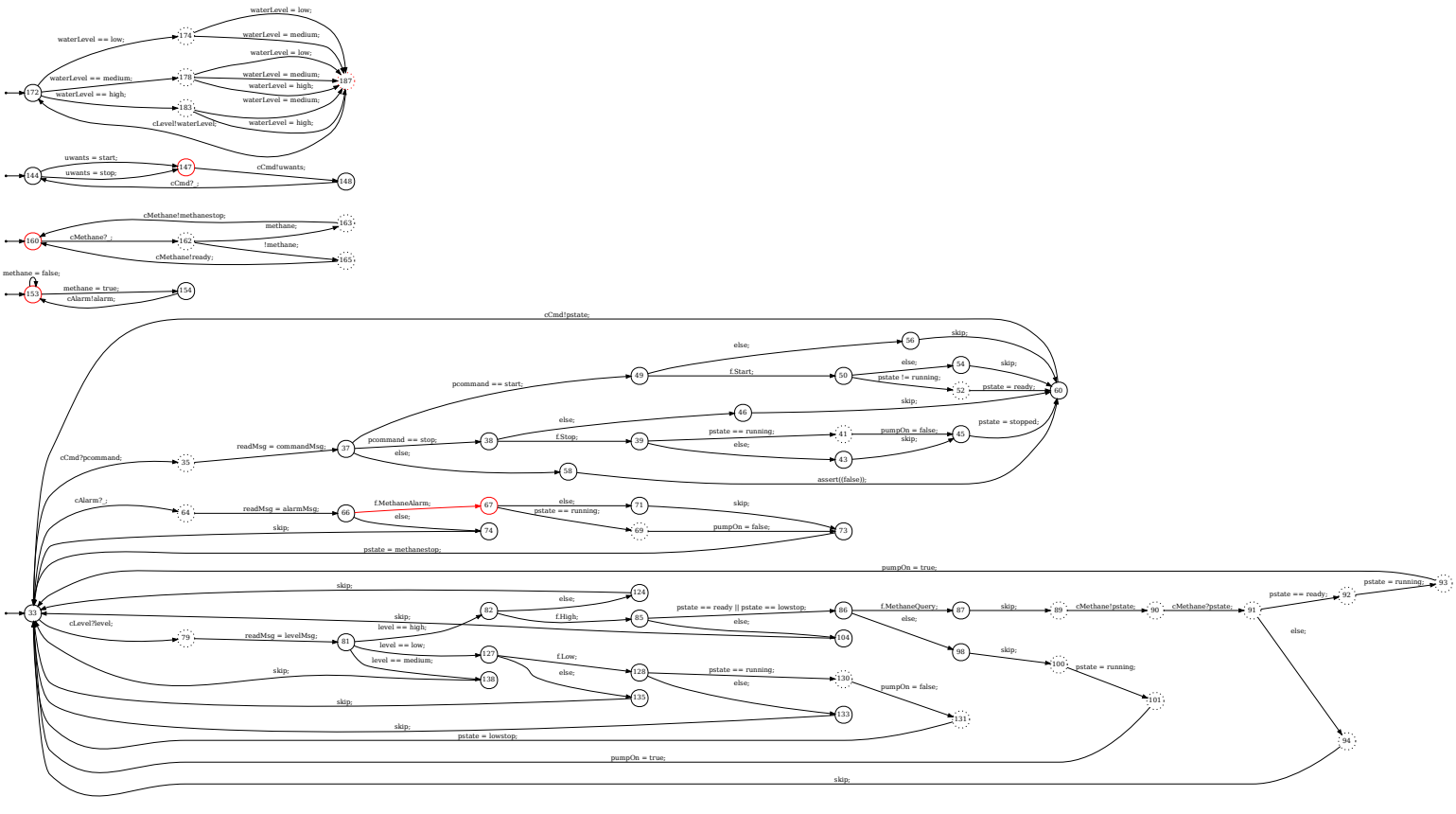
pstate = running;
101
94
138
135
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
60
skip;
46
else;
pcommand == start;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
39
f.Stop;
38
pcommand == stop;
37
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58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
66
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67
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pstate == running;
skip;
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69
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level == low;
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skip;
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pstate = lowstop;
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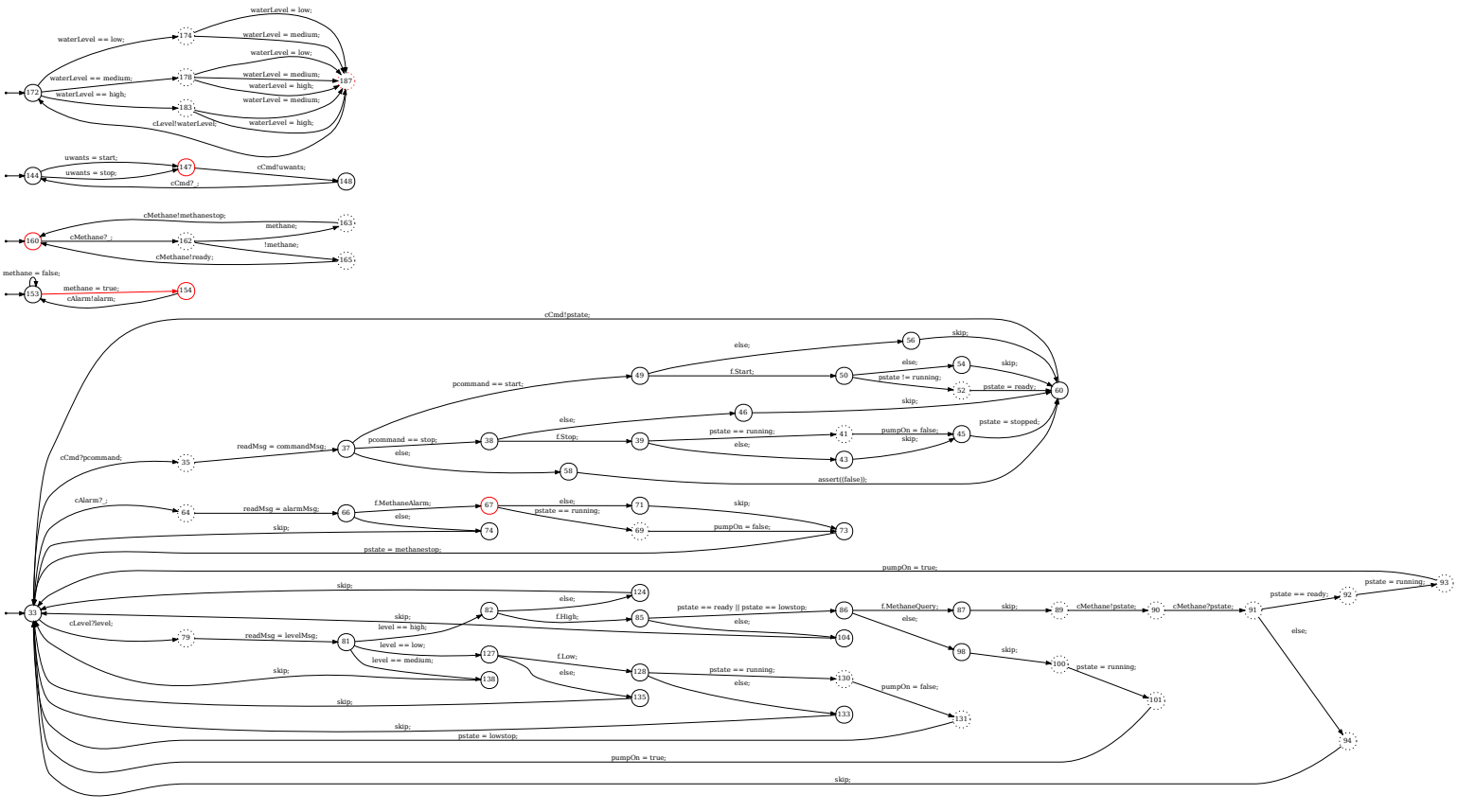
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
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methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
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49
f.Start;
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pcommand == start;
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128
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138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
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skip;
100
pstate = running;
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skip;
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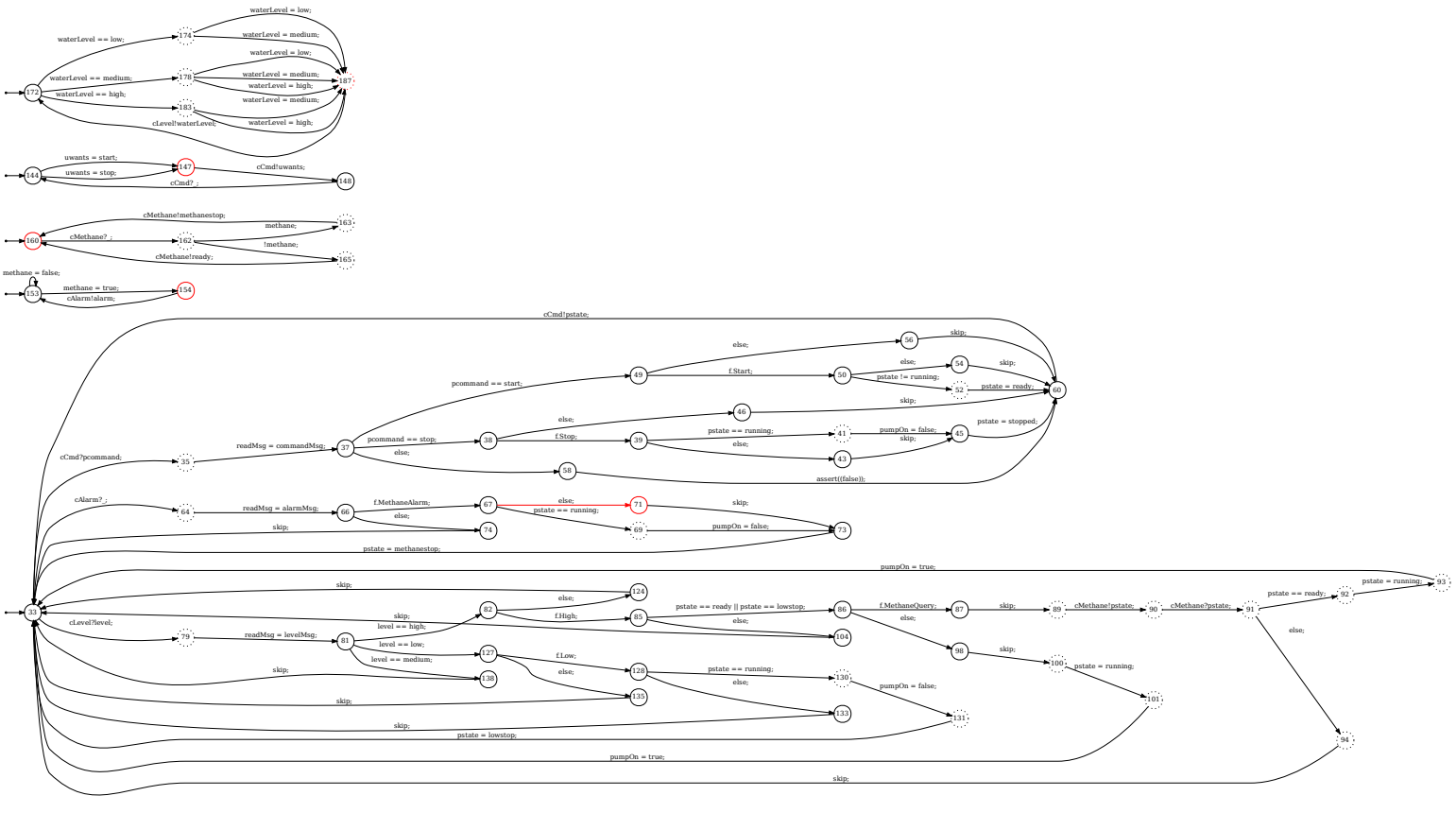
skip;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waterLevel == high;
waterLevel = medium;
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uwants = start;
uwants = stop;
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160
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cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
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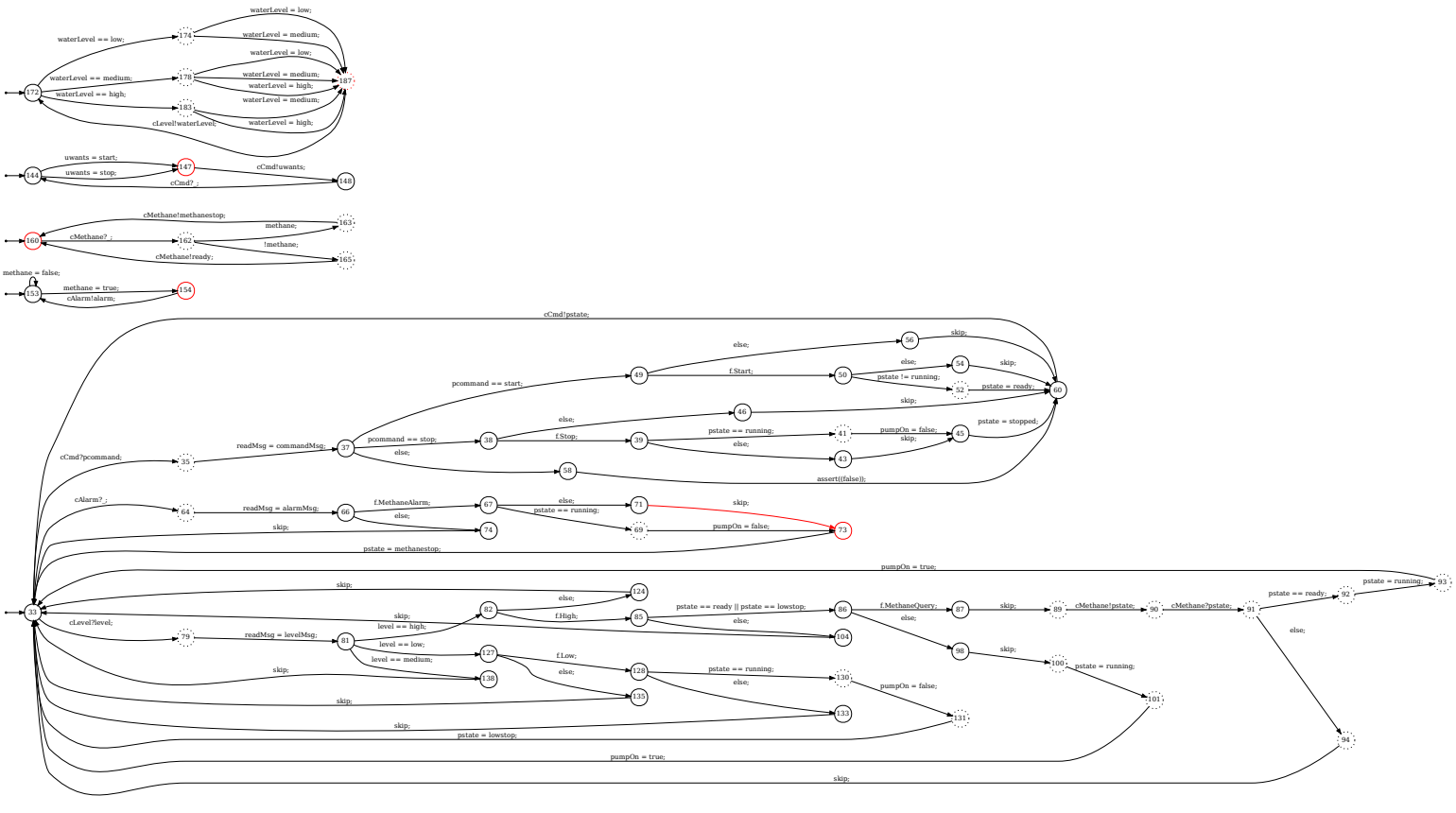
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
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uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
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cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
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154
methane = true;
cAlarm!alarm;
cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
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cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
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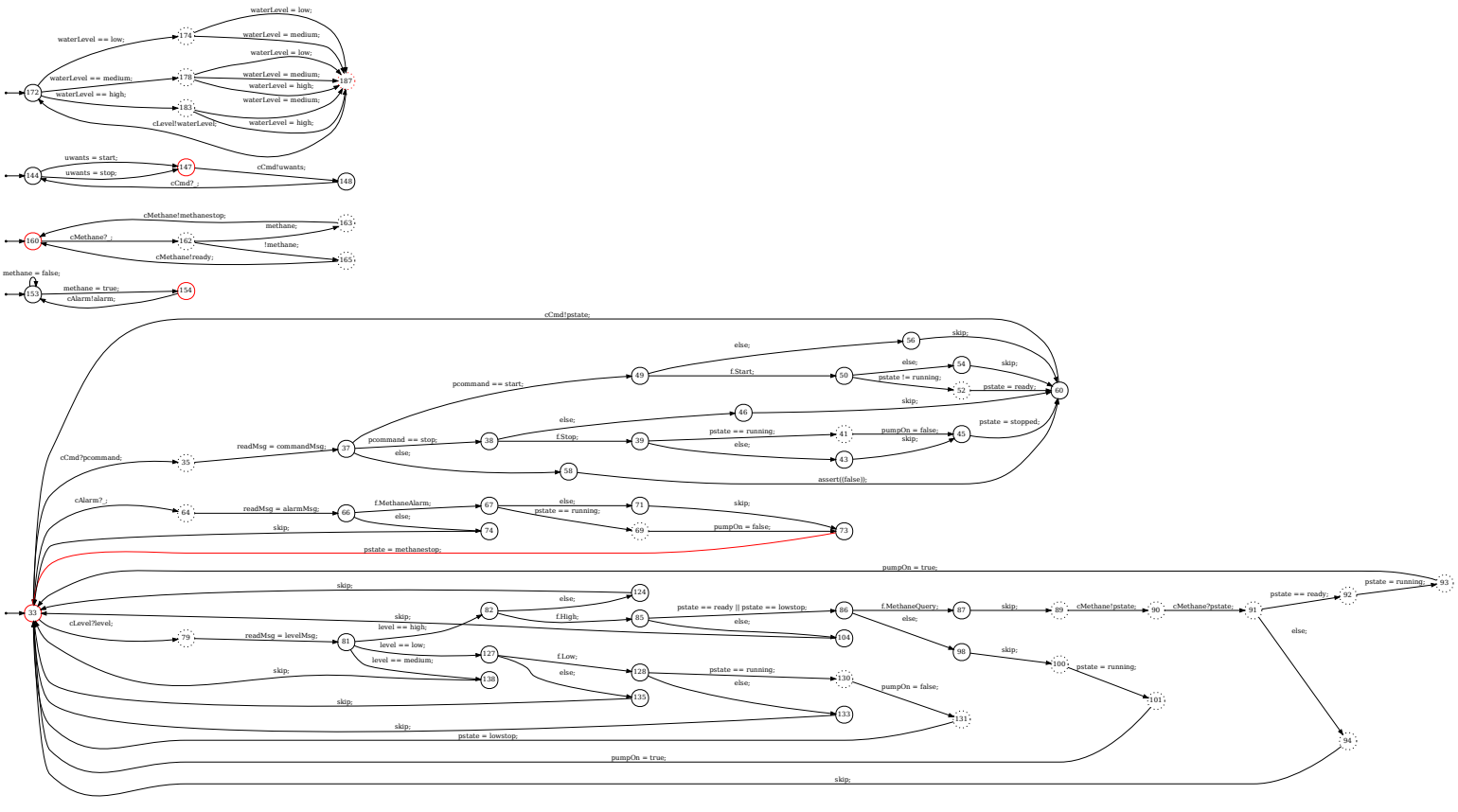
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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67
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skip;
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73
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pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
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pstate = running;
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f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
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f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
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else;
pumpOn = false;
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skip;
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skip;
pstate = lowstop;
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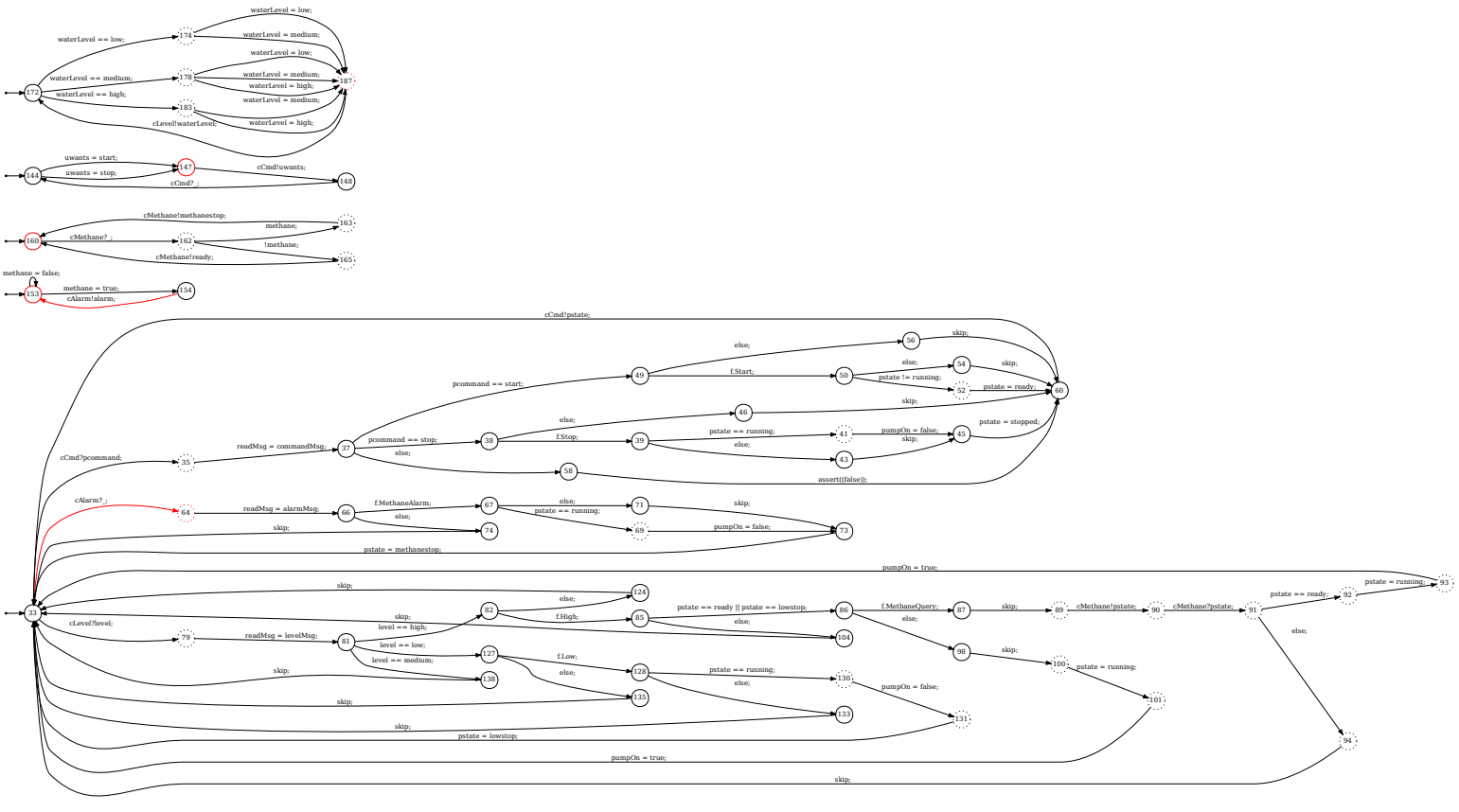
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
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147
148
uwants = start;
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cCmd!uwants;
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160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
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pstate = ready;
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pcommand == start;
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else;
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pstate == running;
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cCmd?pcommand;
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readMsg = commandMsg;
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cAlarm? ;
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pstate == ready || pstate == lowstop;
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skip;
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pstate = running;
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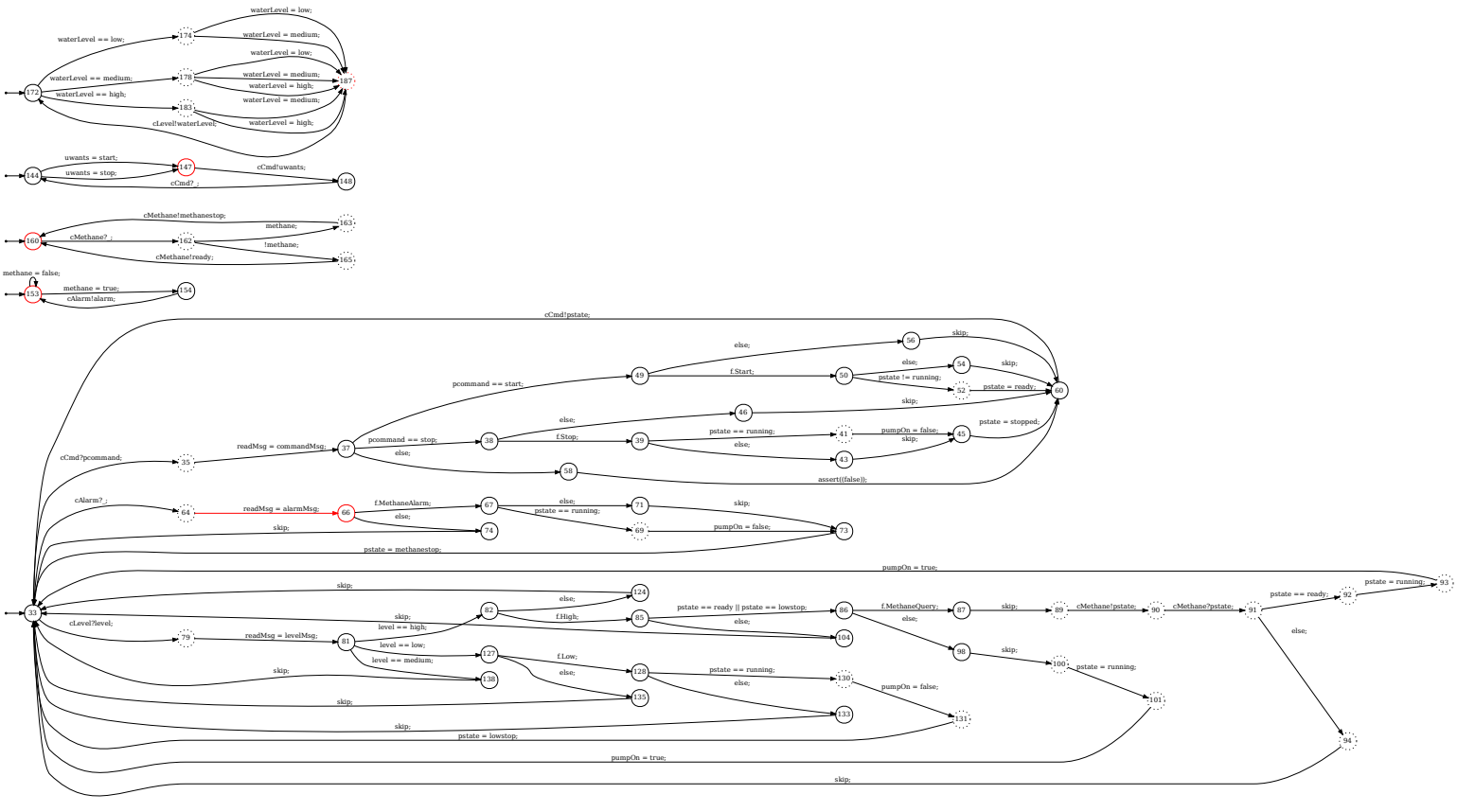
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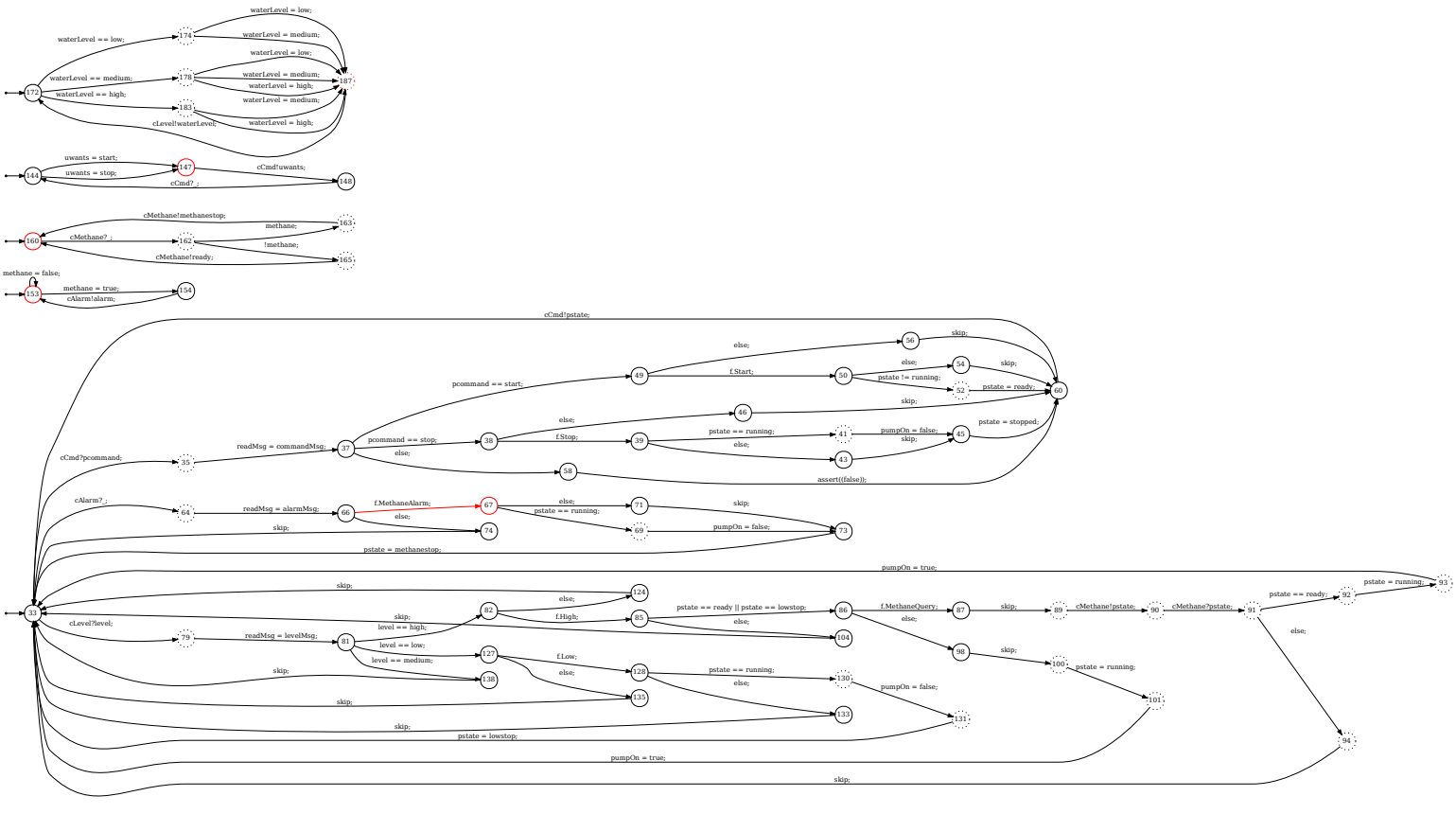
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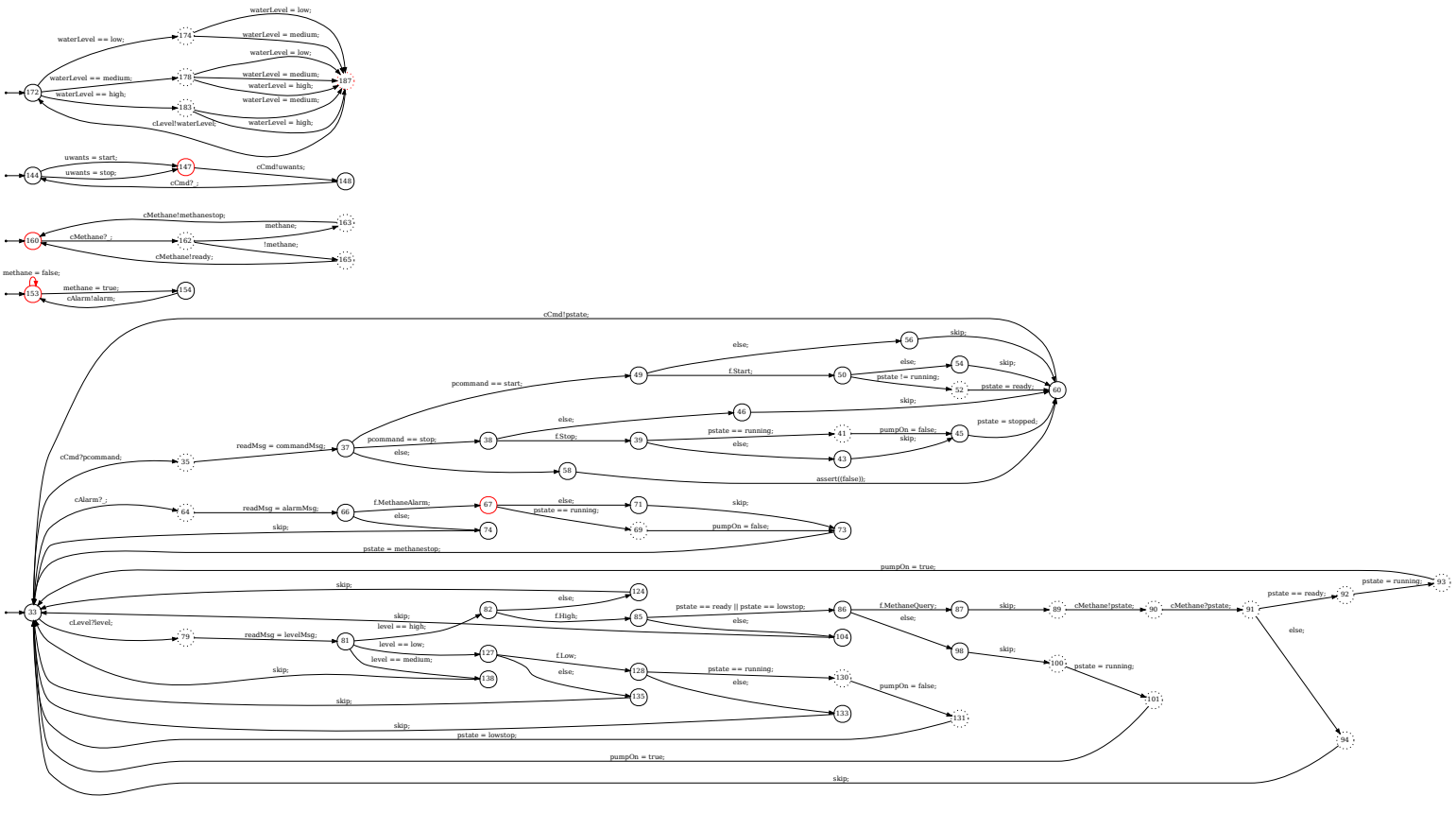
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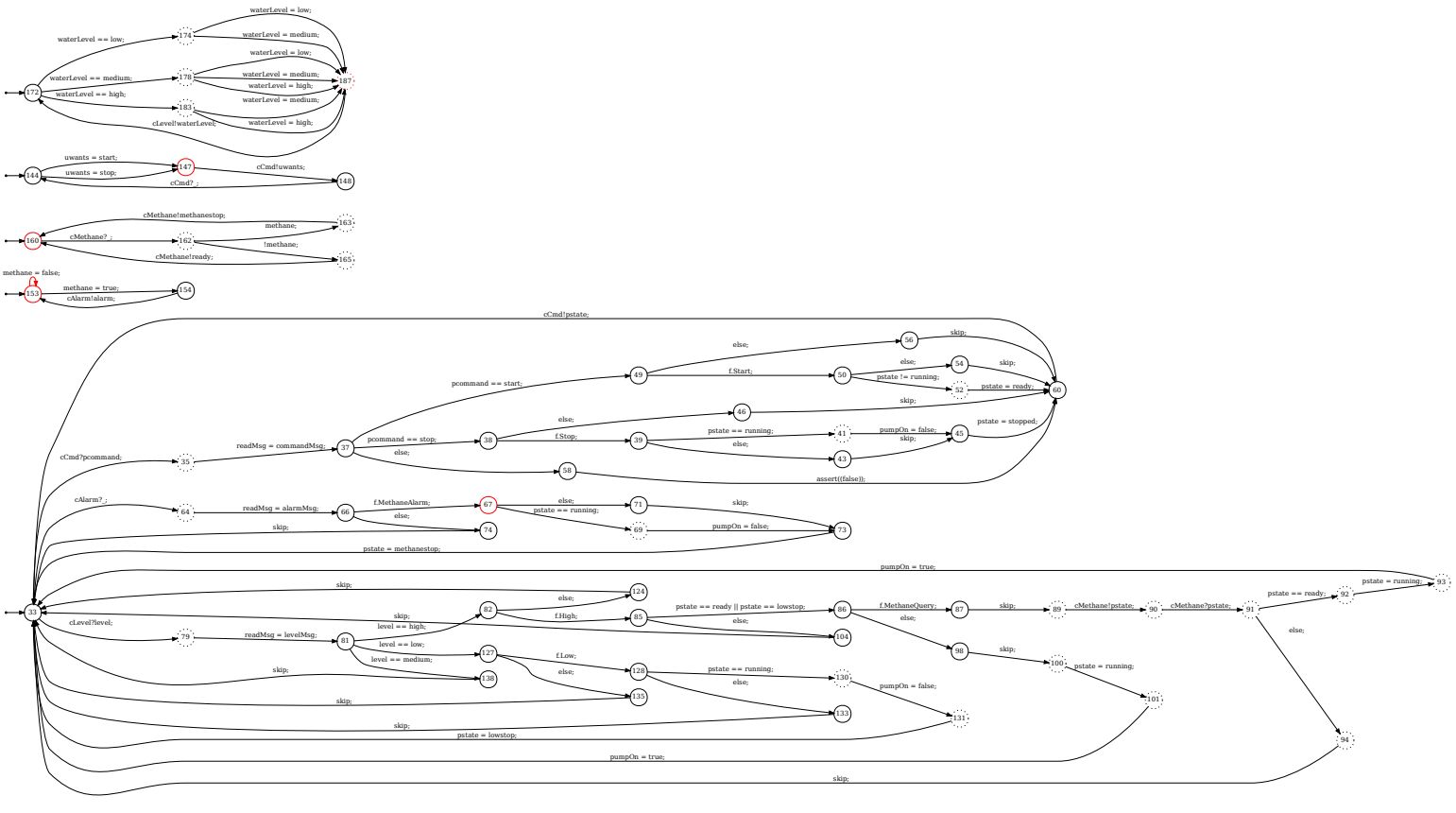
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
else;
130
pumpOn = false;
133
131
pstate = lowstop;
pumpOn = true;
skip;
92
pstate = ready;
93
94


172
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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cCmd?pcommand;
35
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
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86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
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98
skip;
100
pstate = running;
101
pstate == running;
else;
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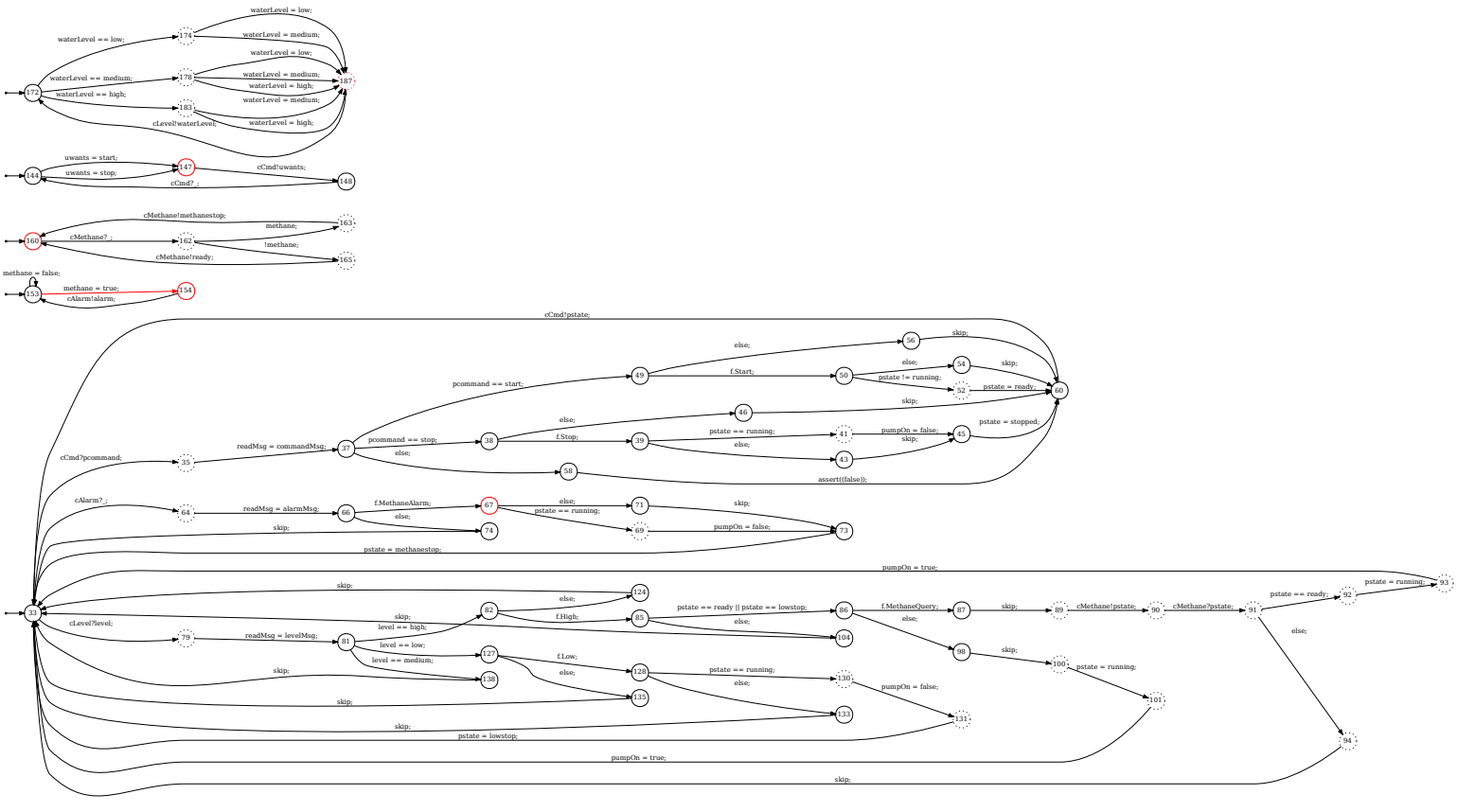
pumpOn = false;
133
131
pstate = lowstop;
pumpOn = true;
skip;
92
pstate = ready;
93
94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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
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71
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74
69
pumpOn = false;
73
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pstate = methanestop;
pumpOn = true;
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readMsg = levelMsg;
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138
135
133
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skip;
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pstate = lowstop;
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skip;
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pstate = running;
101
skip;
89
cMethane!pstate;
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else;
pstate == ready;
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pstate = running;
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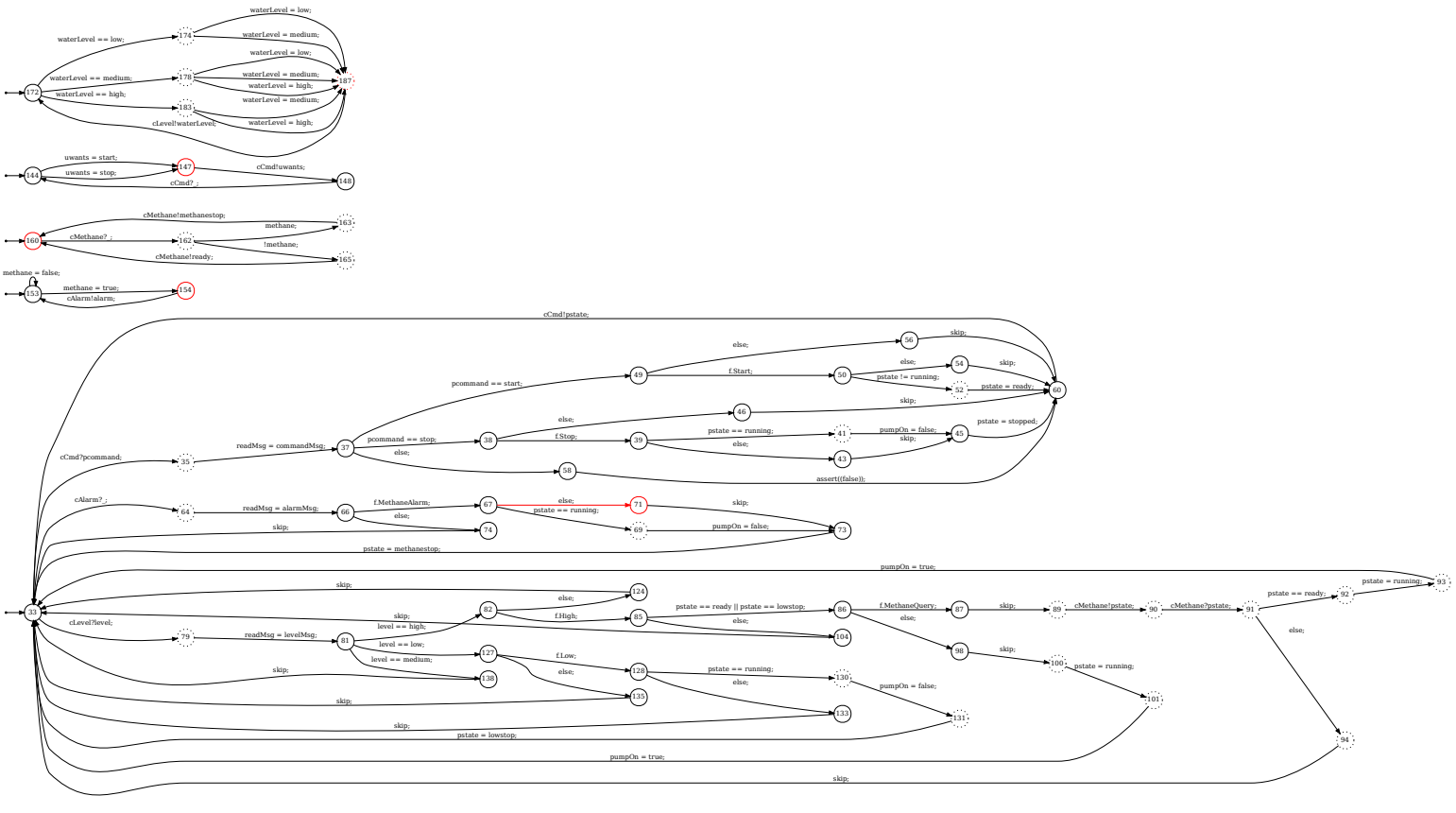
pumpOn = true;
skip;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waterLevel == low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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86
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89
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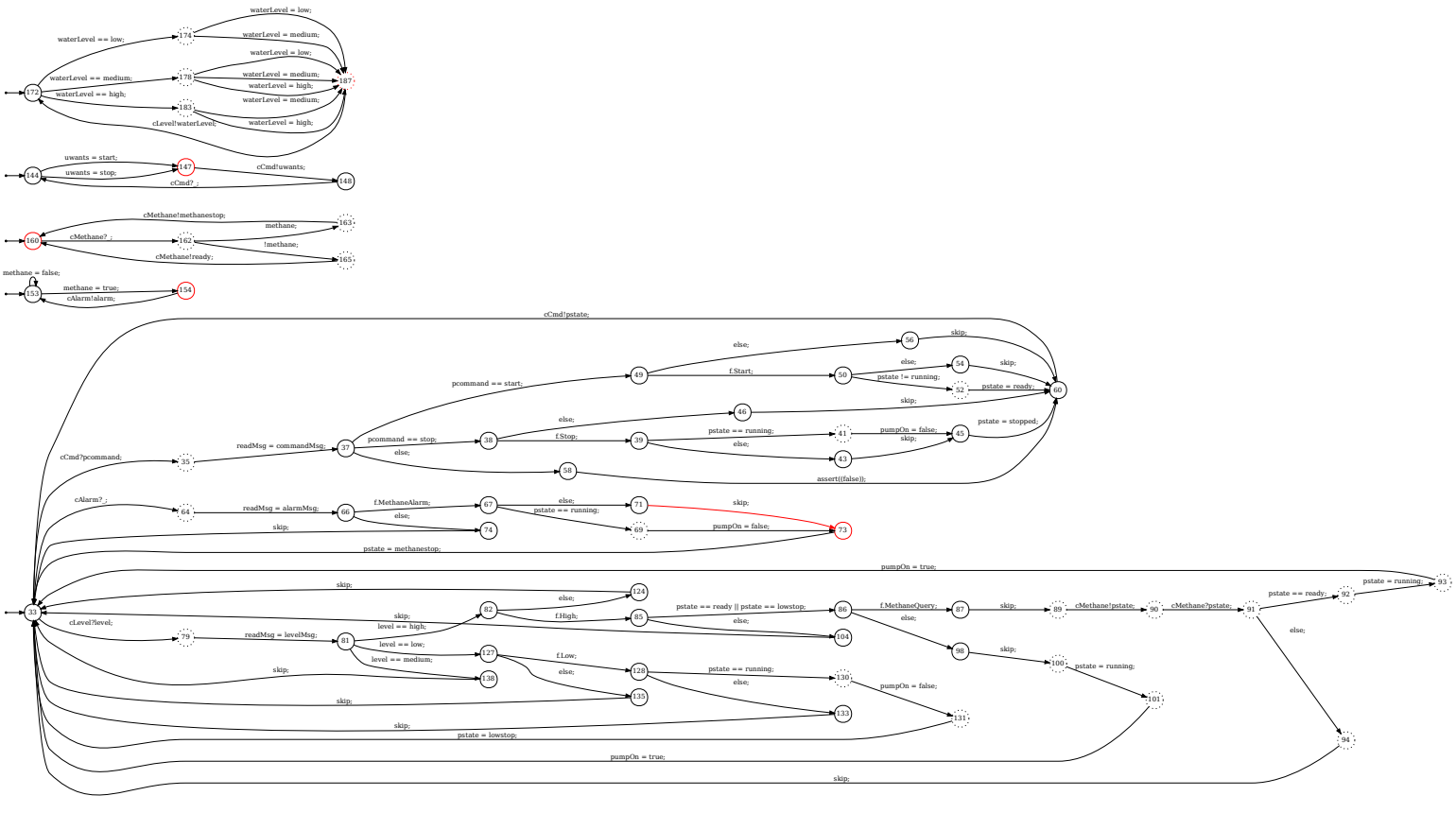
91
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
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41
43
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46
49
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52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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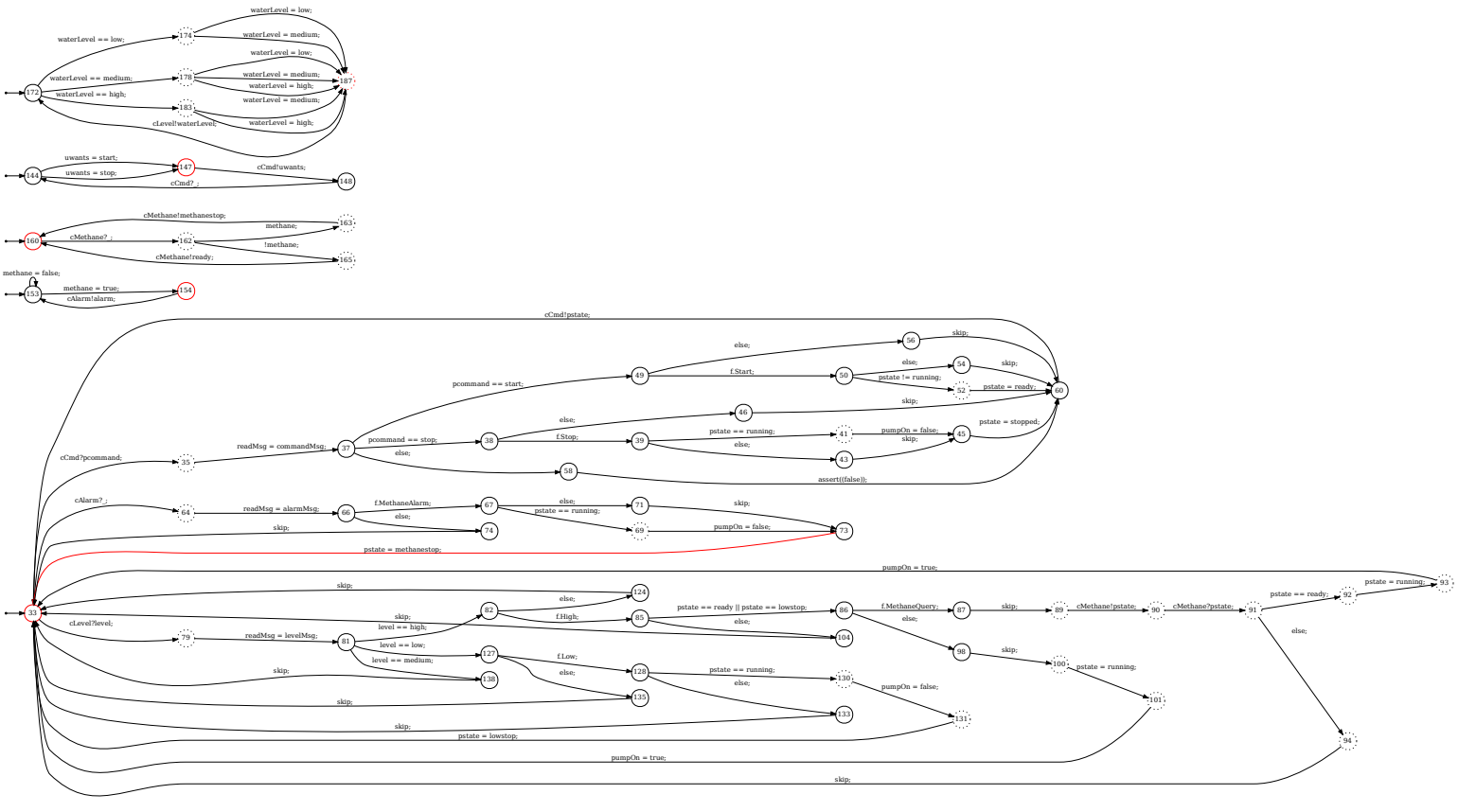
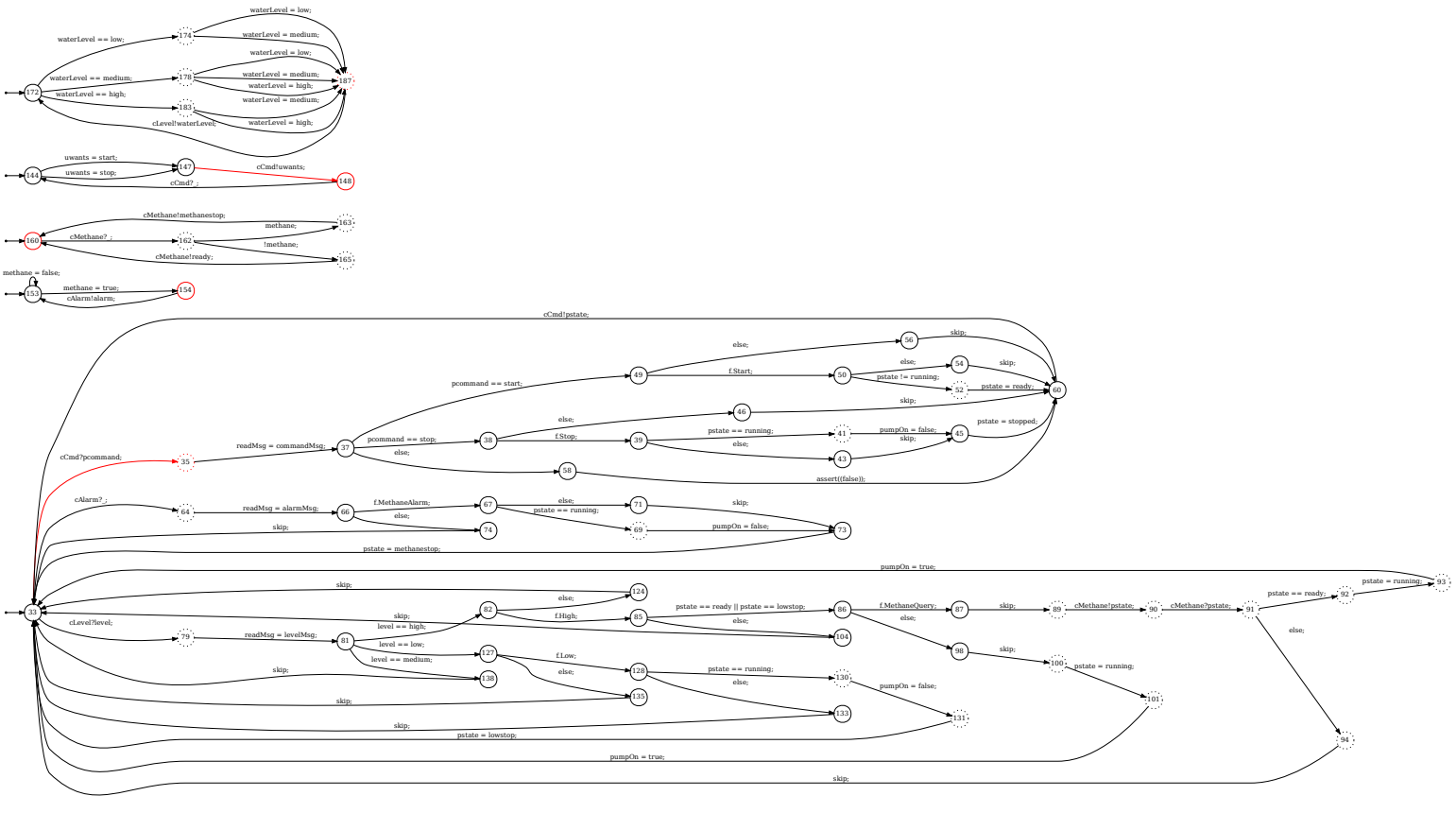
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;


waterLevel = low;
waterLevel == low;
174
waterLevel = medium;
waterLevel = low;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
130
else;
pumpOn = false;
101
skip;
135
133
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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pstate == running;
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else;
pumpOn = false;
131
pstate == ready;
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pstate = running;
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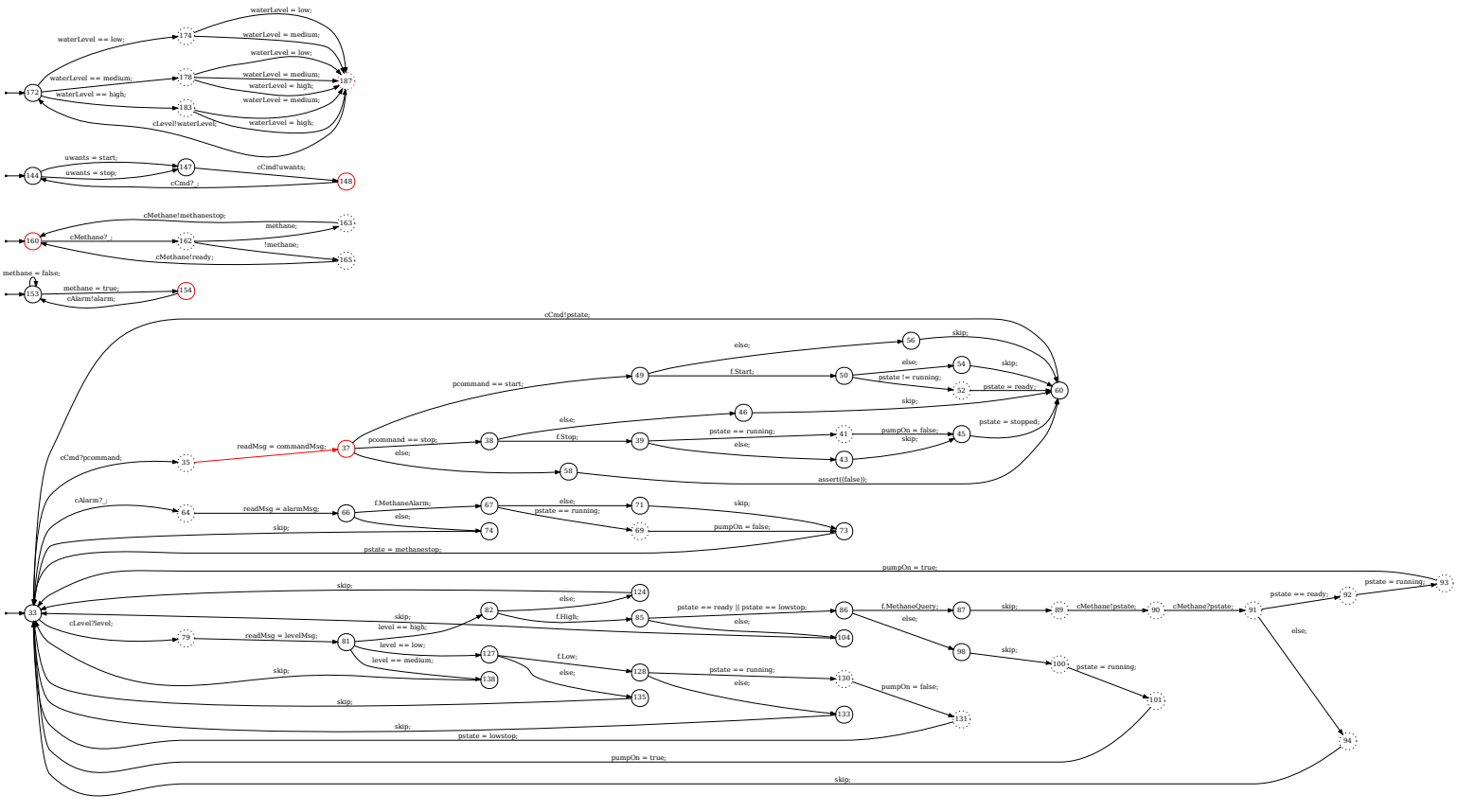
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
else;
43
else;
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
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104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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pstate == running;
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skip;
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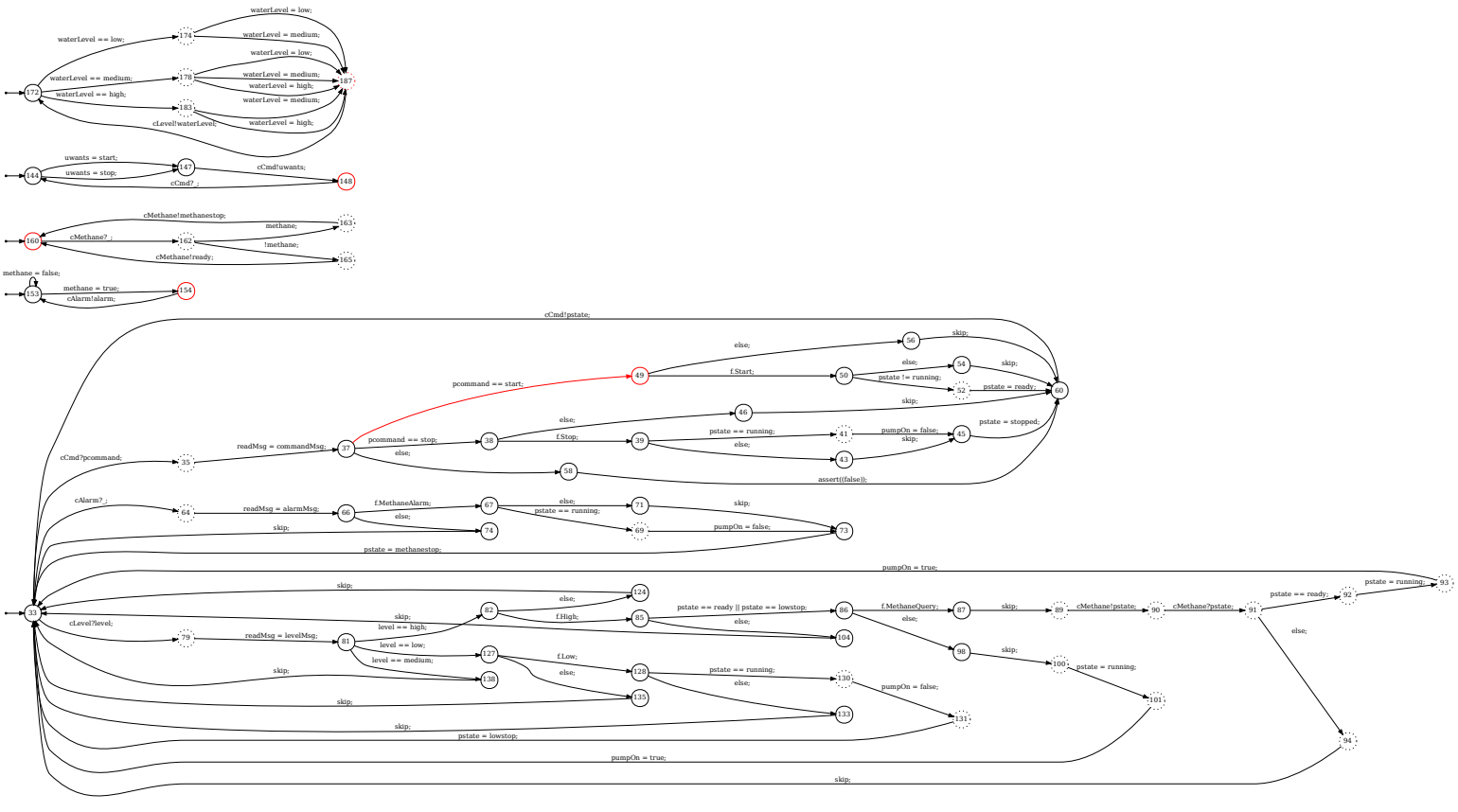
93
94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waterLevel == low;
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waterLevel = low;
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waterLevel == medium;
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waterLevel = medium;
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waterLevel = medium;
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uwants = start;
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cMethane? ;
162
cMethane!methanestop;
methane;
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cMethane!ready;
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else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
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pstate = stopped;
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43
cCmd?pcommand;
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readMsg = commandMsg;
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33
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135
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131
pumpOn = true;
skip;
pstate == ready;
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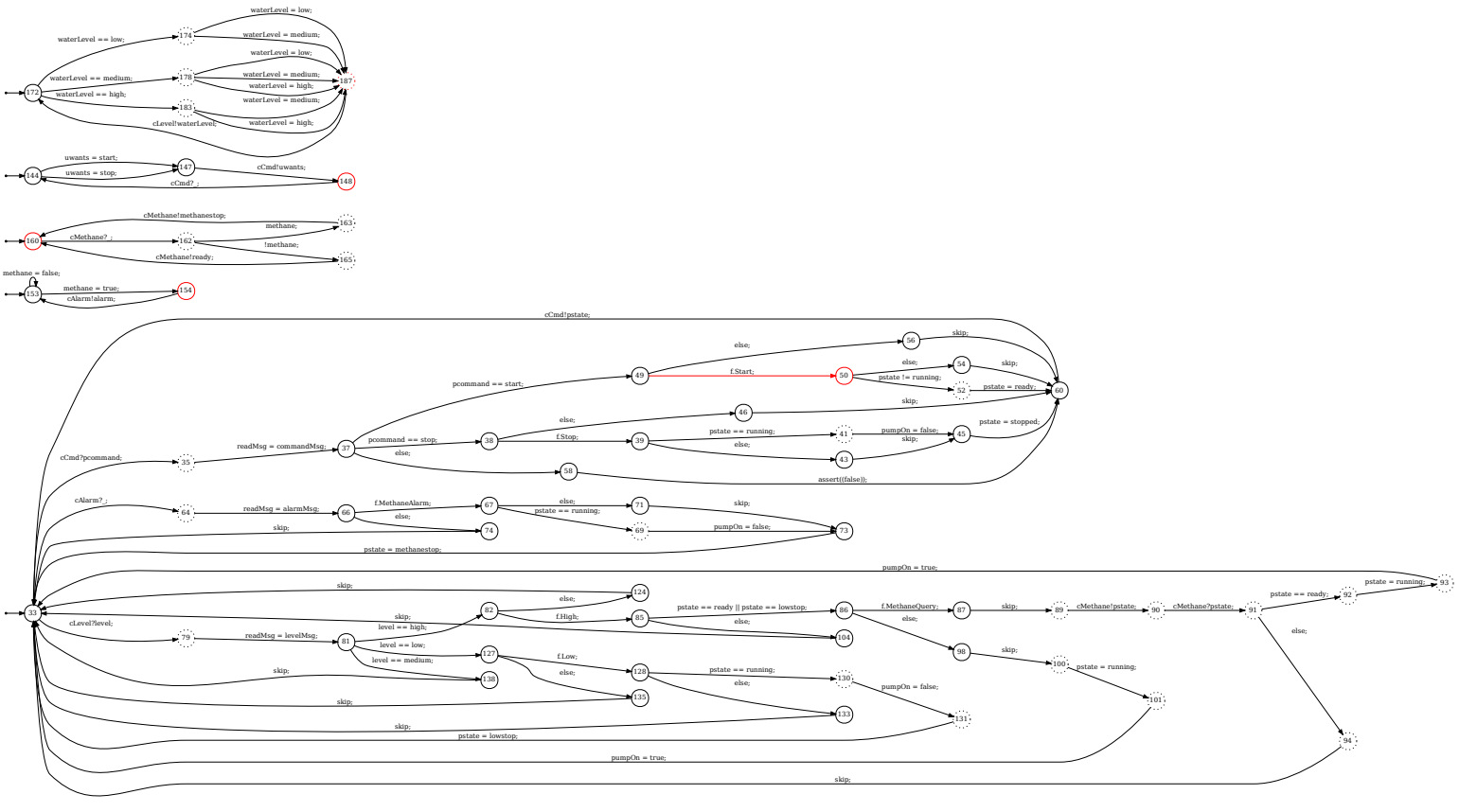
pstate = running;
93
94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waterLevel == medium;
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waterLevel = low;
waterLevel = high;
waterLevel == high;
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
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uwants = start;
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147
cCmd!uwants;
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160
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cMethane!methanestop;
162
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!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
pcommand == start;
f.Start;
50
pstate != running;
52
pstate = ready;
60
skip;
46
else;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
38
else;
f.Stop;
39
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
89
skip;
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
100
pstate = running;
101
94
pstate == running;
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pumpOn = false;
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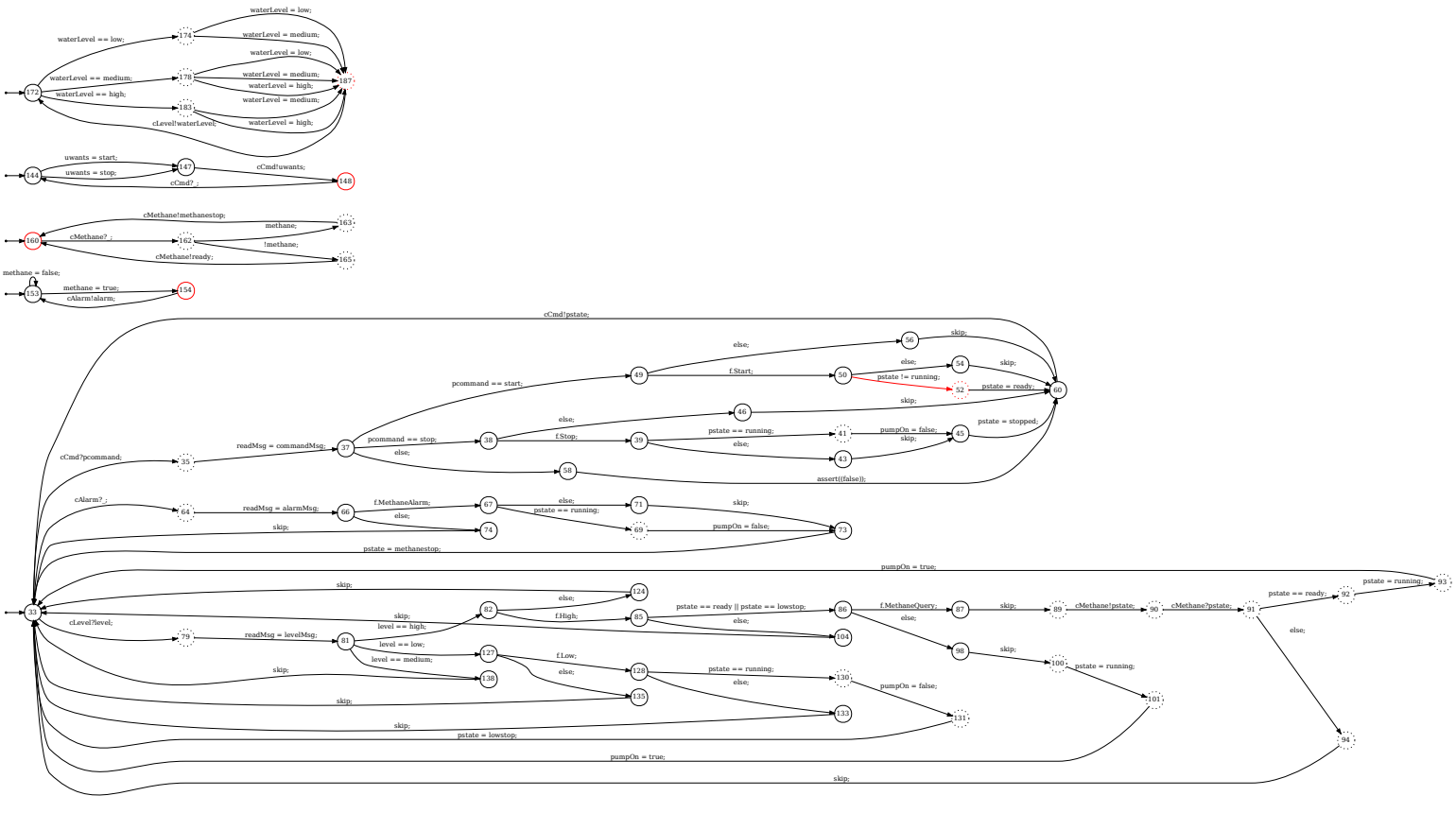
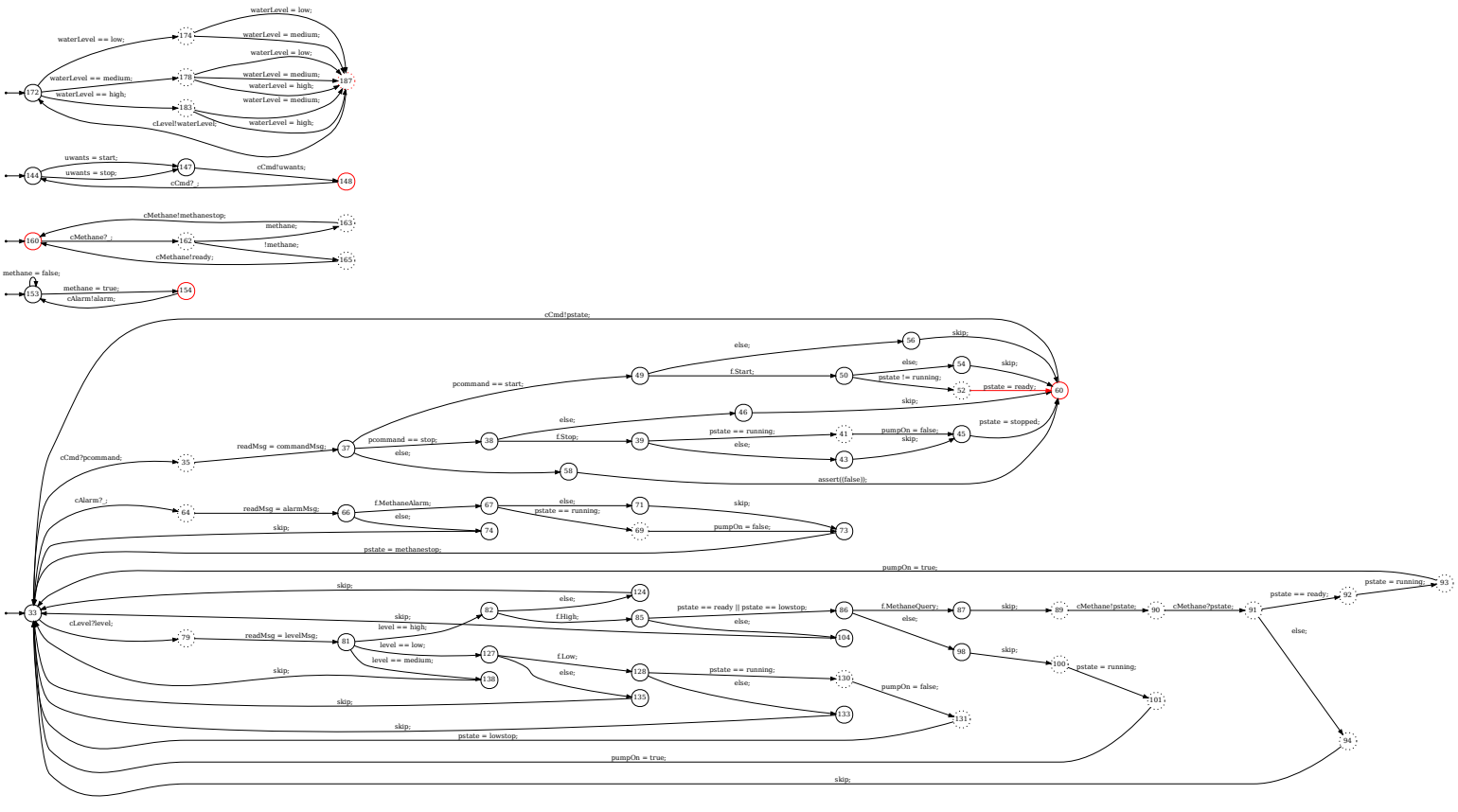
pstate = lowstop;
pumpOn = true;
skip;


172
174
176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
49
f.Start;
pstate != running;
52
pstate = ready;
60
skip;
46
pcommand == start;
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
39
f.Stop;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pstate == running;
else;
pumpOn = false;
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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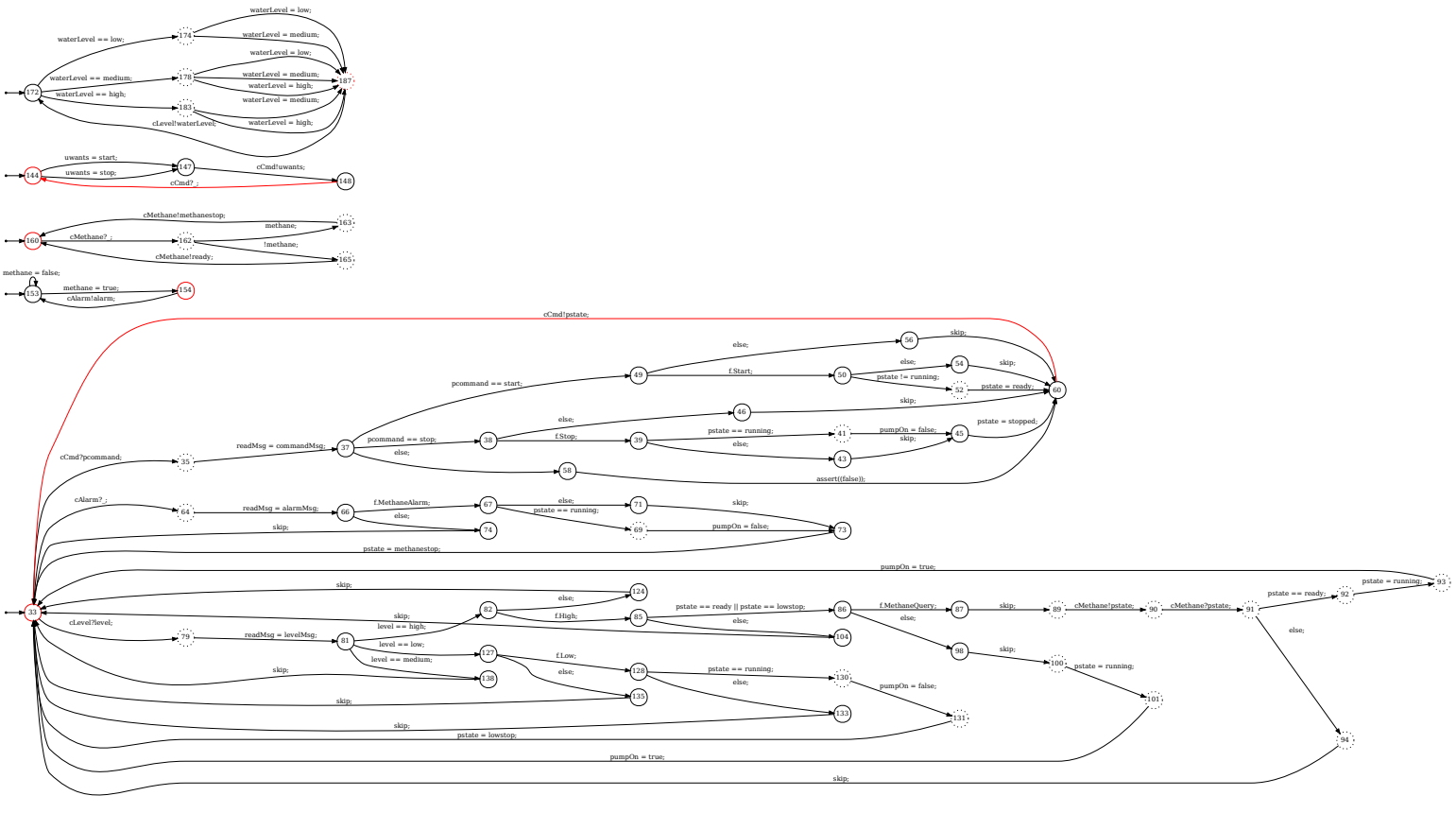
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
pcommand == start;
f.Start;
pstate != running;
52
pstate = ready;
60
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
else;
43
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
else;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
104
else;
98
skip;
100
pstate = running;
101
level == low;
127
f.Low;
level == medium;
138
else;
128
pstate == running;
else;
130
pumpOn = false;
131
skip;
135
133
skip;
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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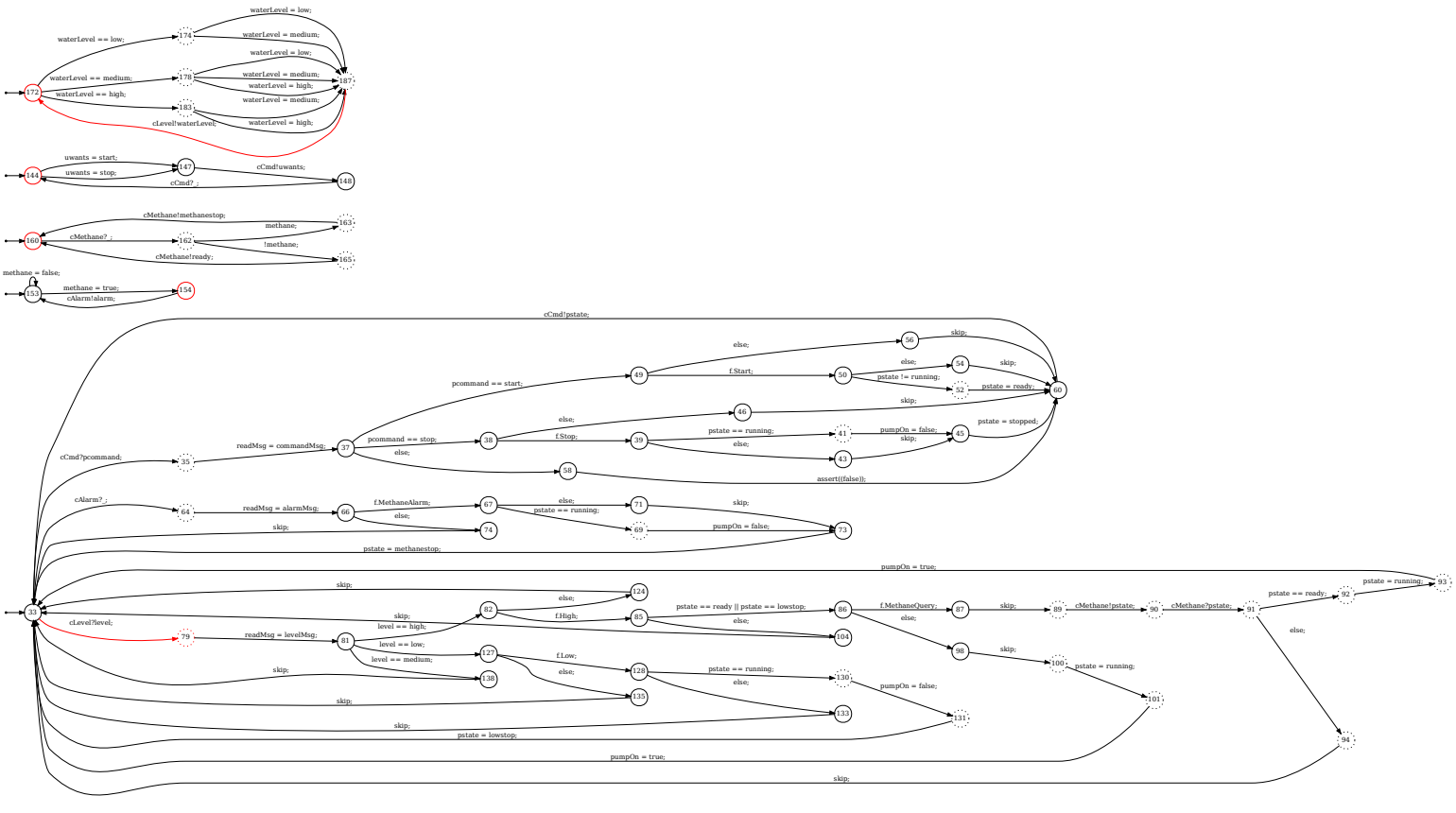
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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174
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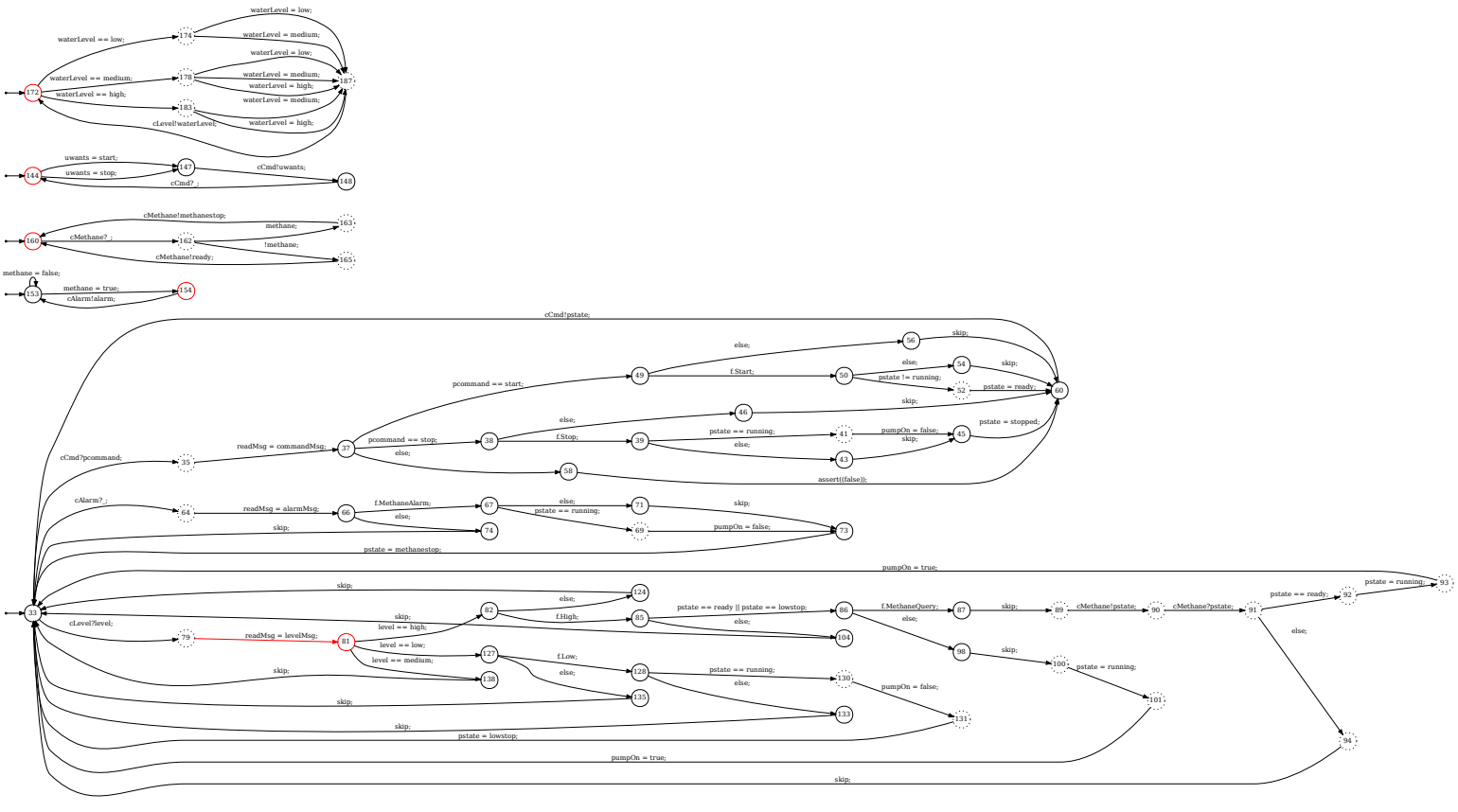
187
waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
pstate = stopped;
f.Start;
pstate != running;
pstate = ready;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
79
81
82
85
86
87
89
90
91
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == low;
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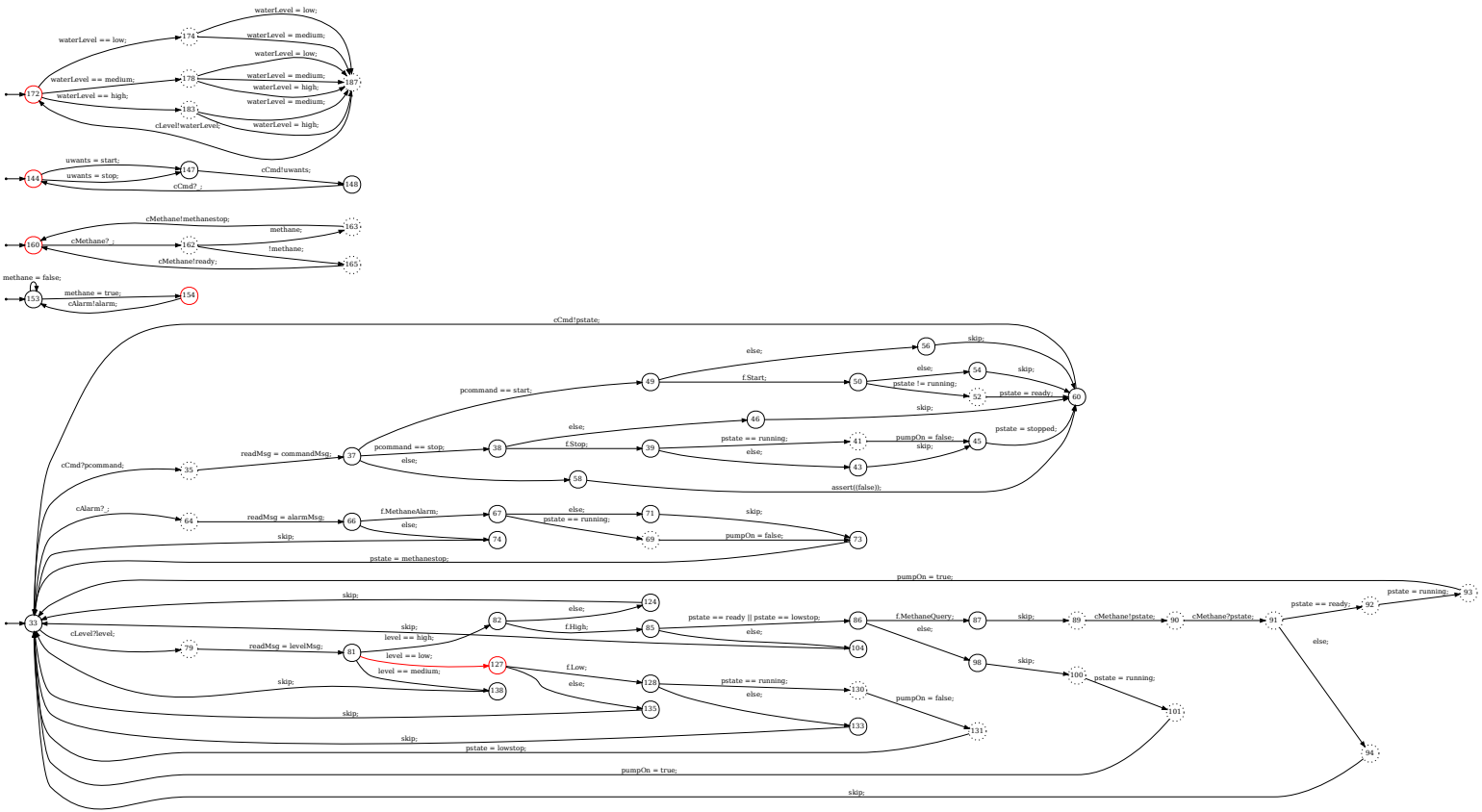
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
176
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
else;
skip;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
98
skip;
100
pstate = running;
101
130
else;
pumpOn = false;
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = low;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
127
level == medium;
138
f.Low;
128
else;
135
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
98
skip;
100
pstate = running;
101
else;
pstate == running;
else;
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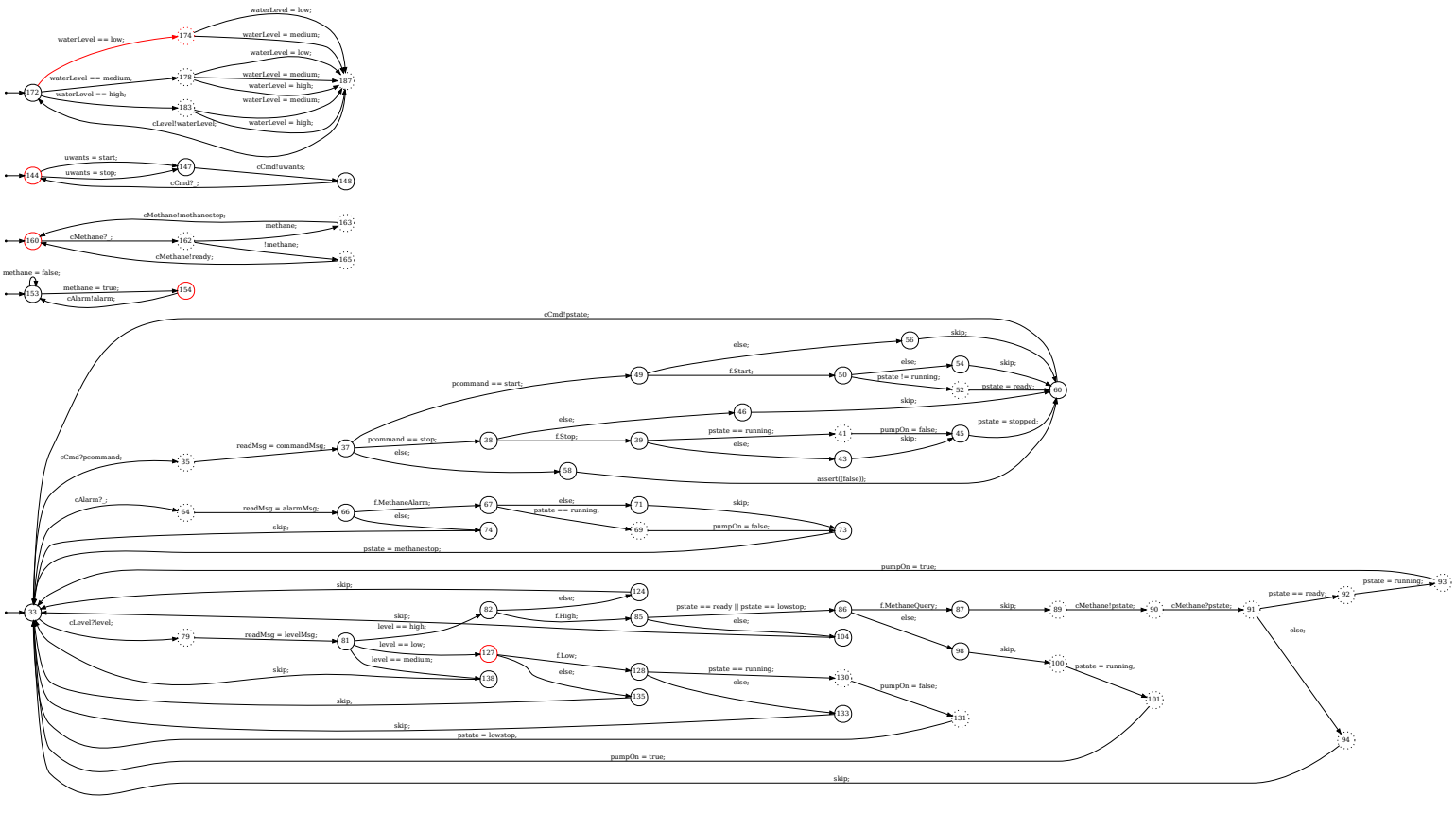
pumpOn = false;
133
131
94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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = low;
waterLevel = medium;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
49
f.Start;
50
else;
54
skip;
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
98
skip;
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pstate = running;
101
138
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skip;
skip;
skip;
pstate = lowstop;
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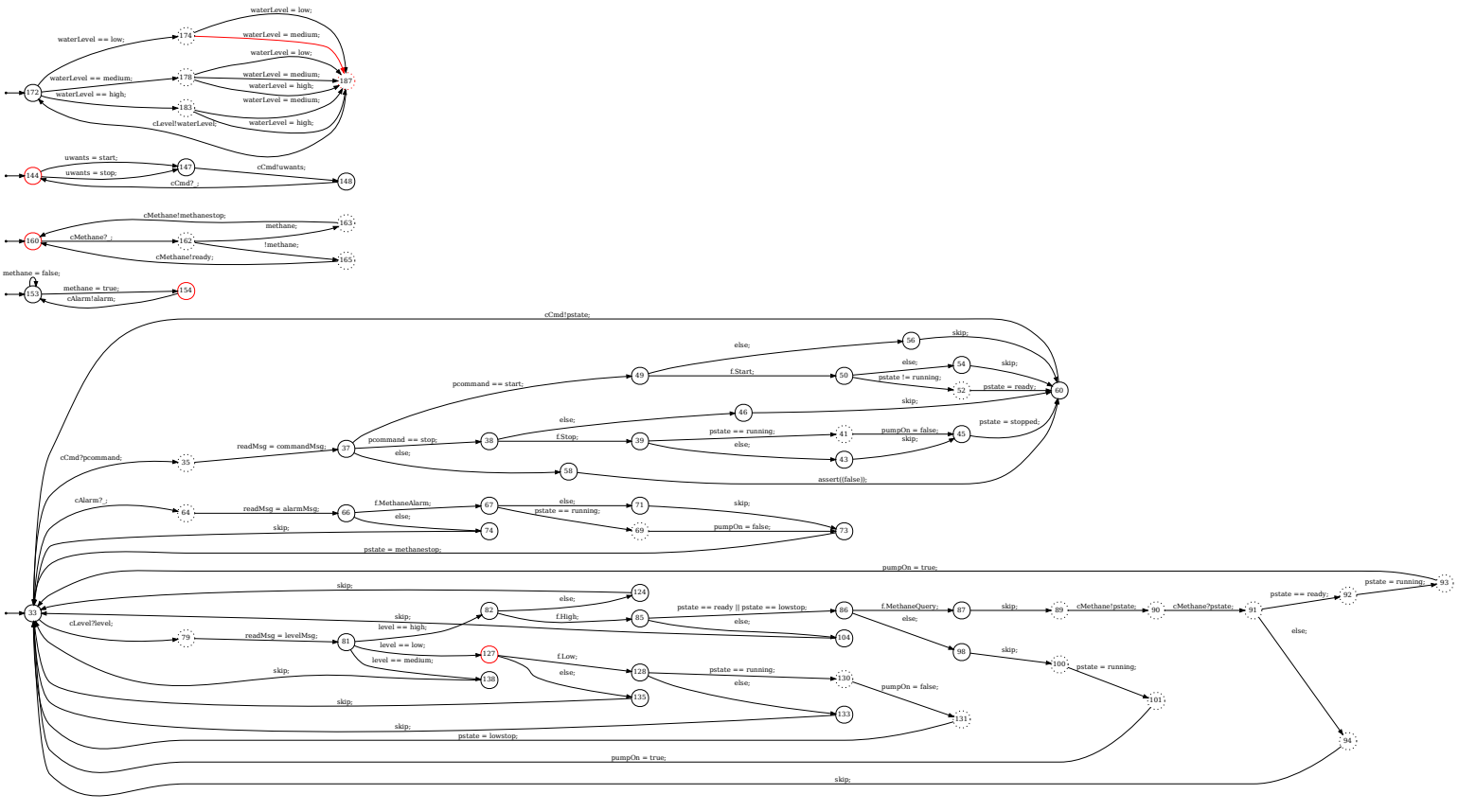
pumpOn = true;
skip;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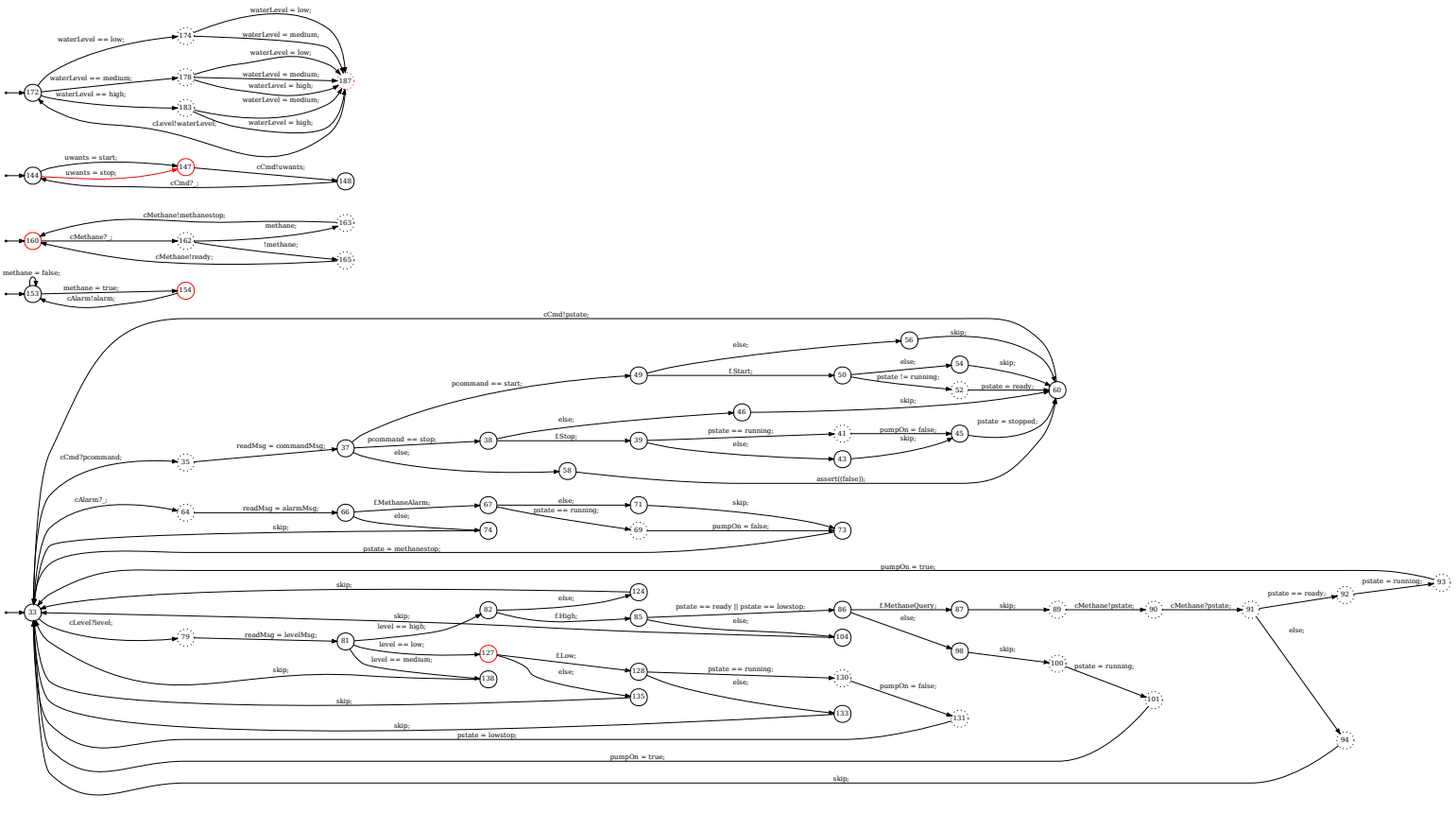
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
79
81
82
85
86
87
89
90
91
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
skip;
else;
f.High;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.Low;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
else;
pstate = running;
skip;
pstate = running;
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
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cLevel!waterLevel;
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uwants = start;
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147
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148
160
cMethane!methanestop;
cMethane? ;
162
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!methane;
163
cMethane!ready;
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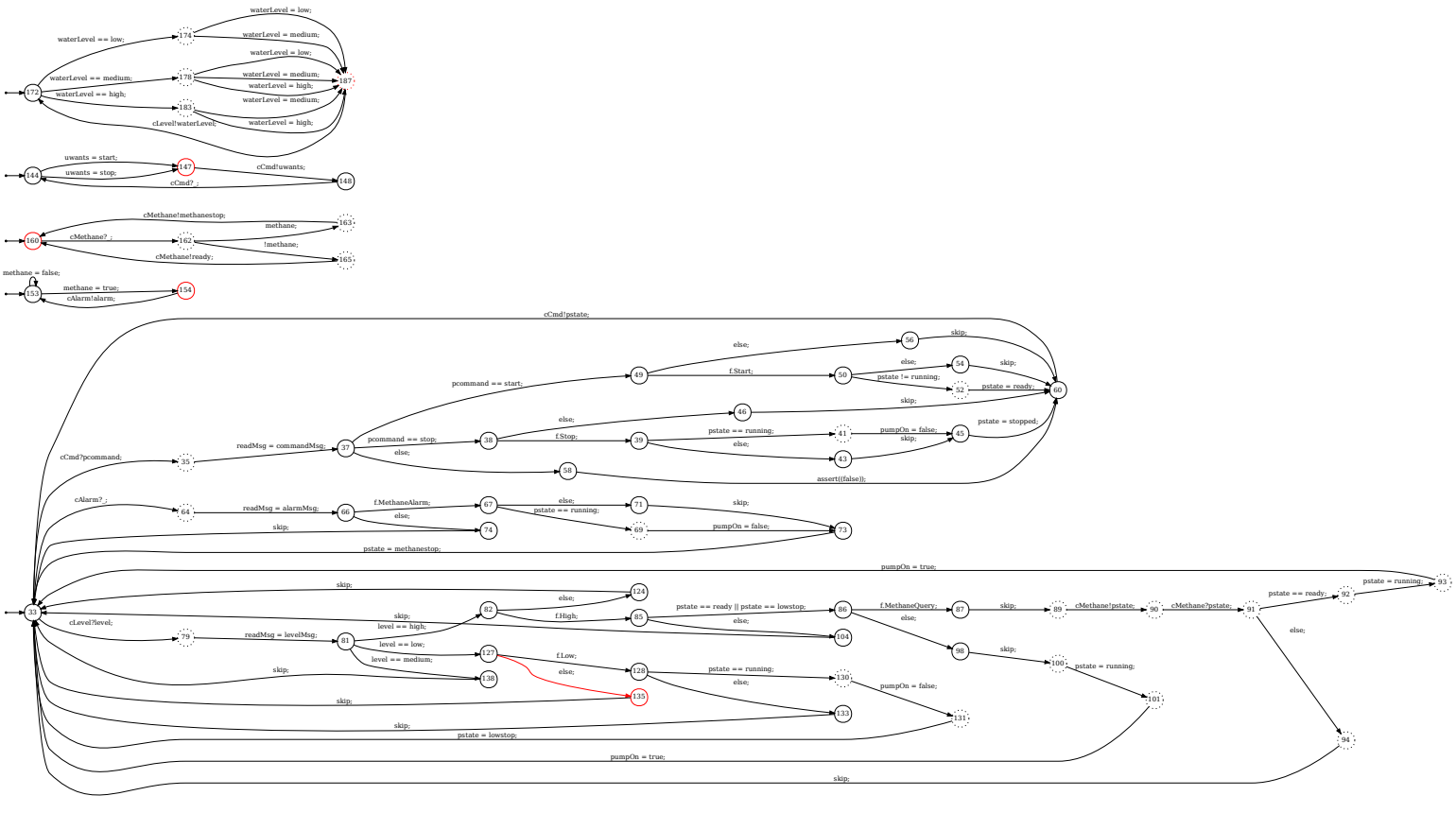
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
pcommand == stop;
else;
37
readMsg = commandMsg;
35
cCmd?pcommand;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
level == medium;
138
skip;
skip;
135
133
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
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162
163
165
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cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
pstate == running;
else;
130
pumpOn = false;
131
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pstate = running;
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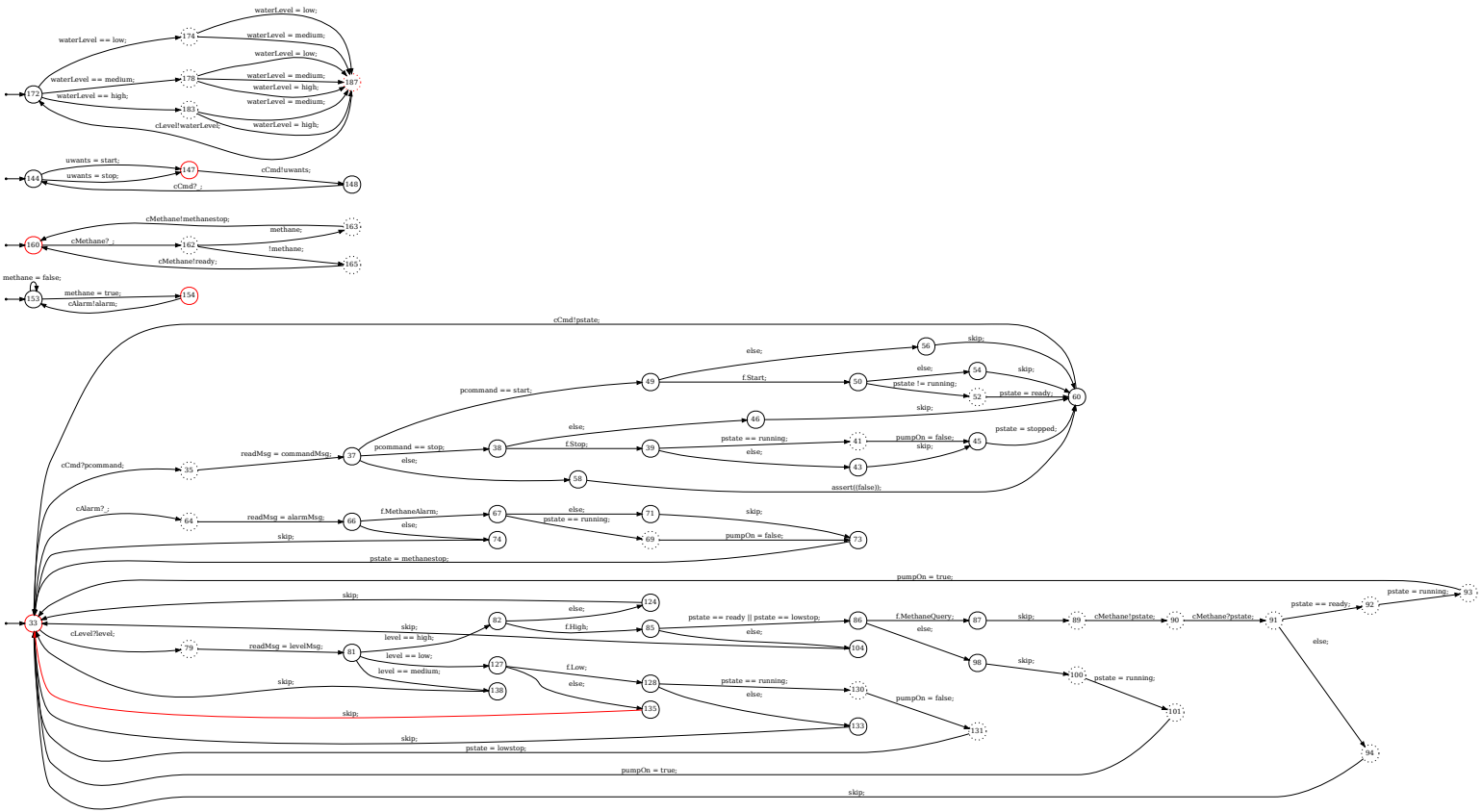
skip;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waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
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else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
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pcommand == start;
46
skip;
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
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f.Stop;
39
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86
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skip;
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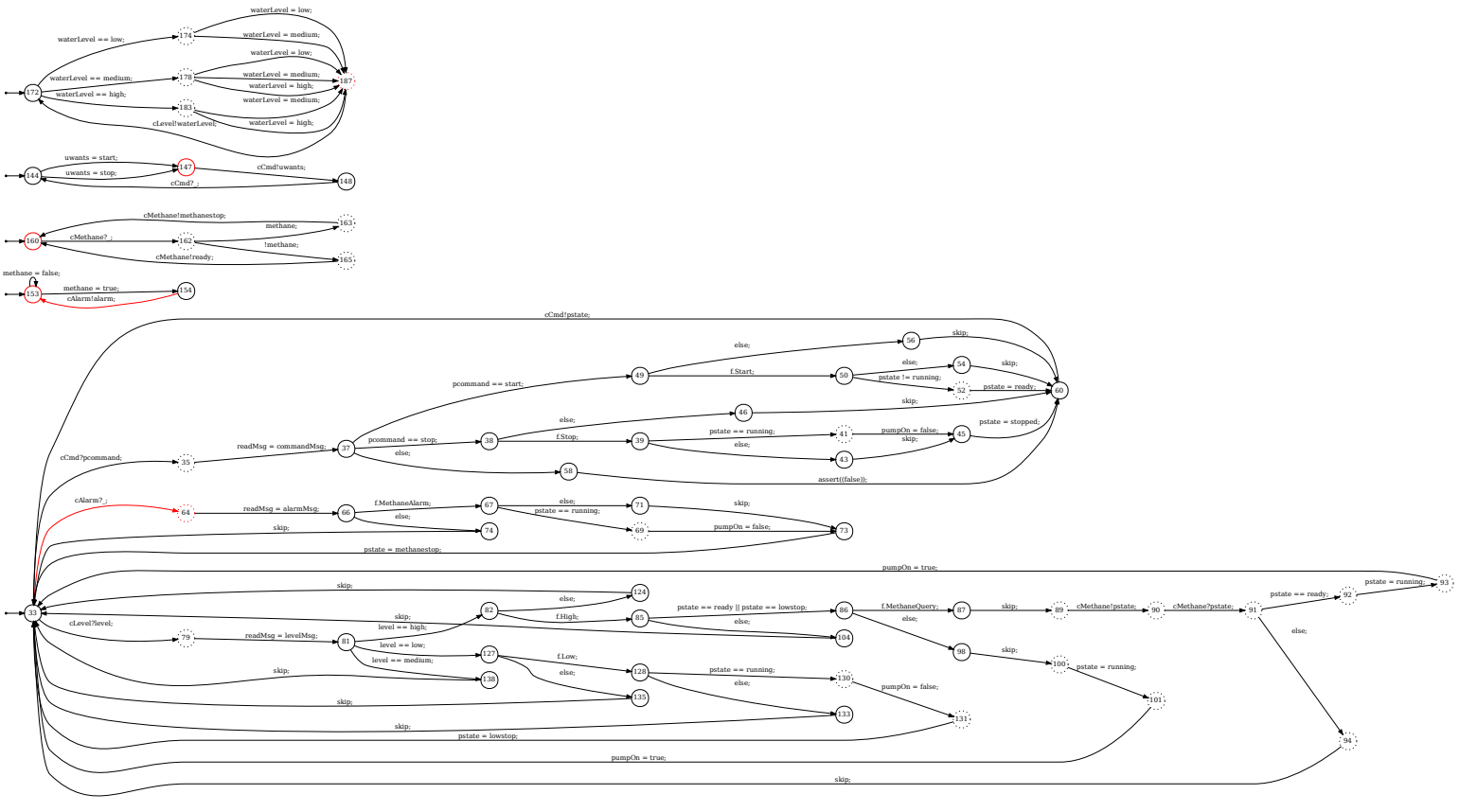
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waterLevel == low;
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waterLevel = medium;
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144
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160
162
163
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cMethane!methanestop;
cMethane? ;
methane;
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methane = true;
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pstate != running;
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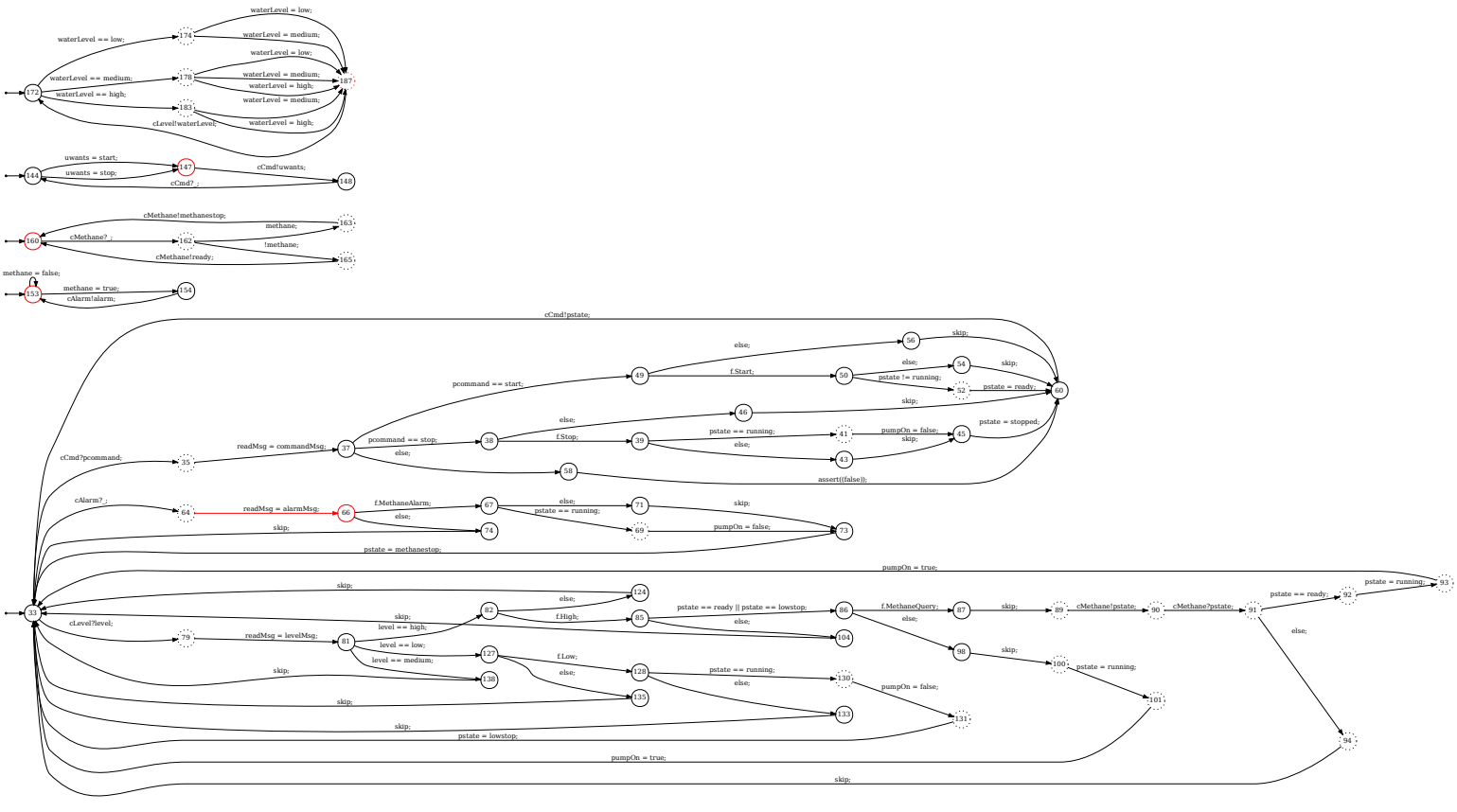
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pumpOn = false;
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pstate = running;
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skip;
skip;
skip;
pstate = lowstop;
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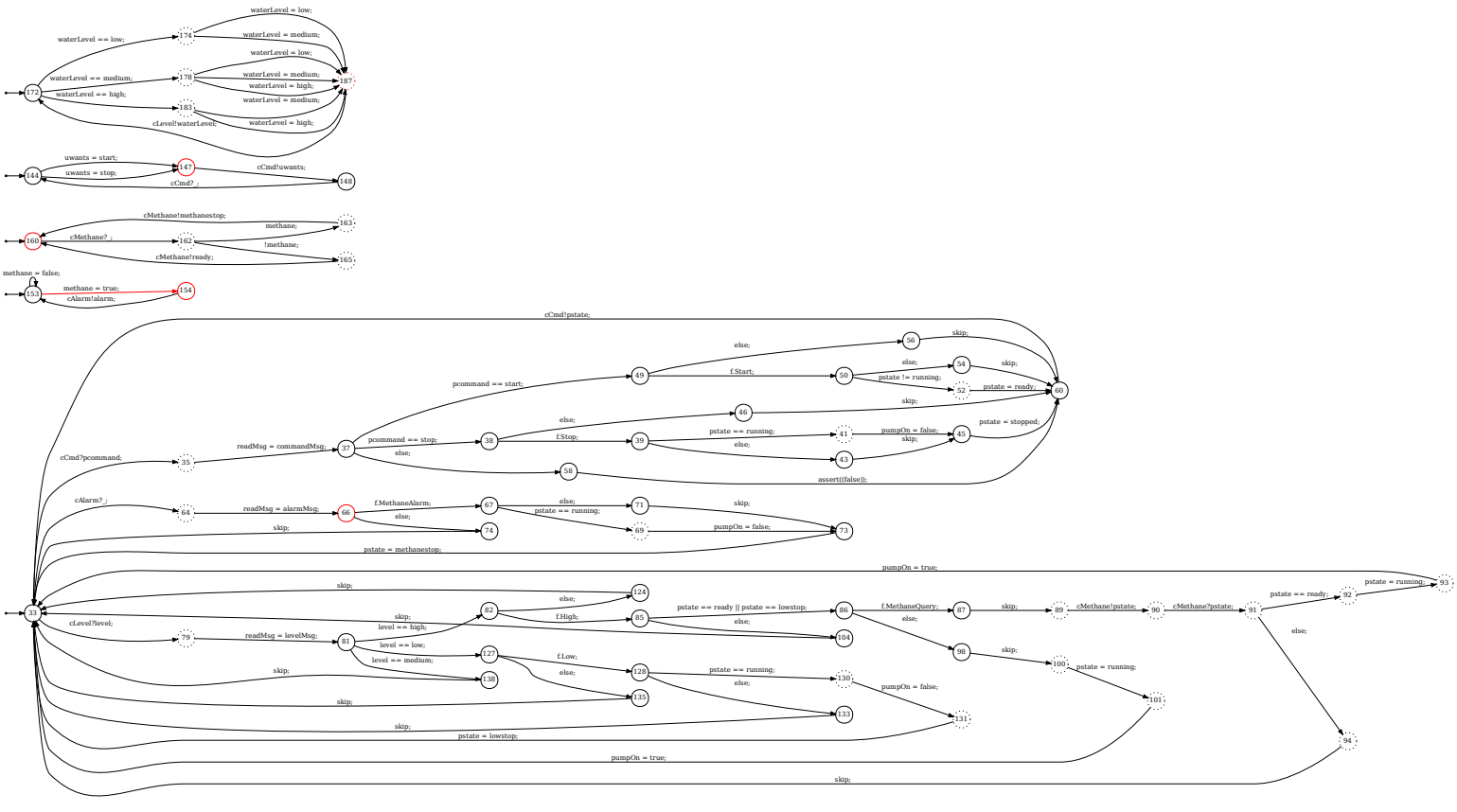
skip;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waterLevel = low;
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160
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methane;
!methane;
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154
methane = false;
methane = true;
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cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
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cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
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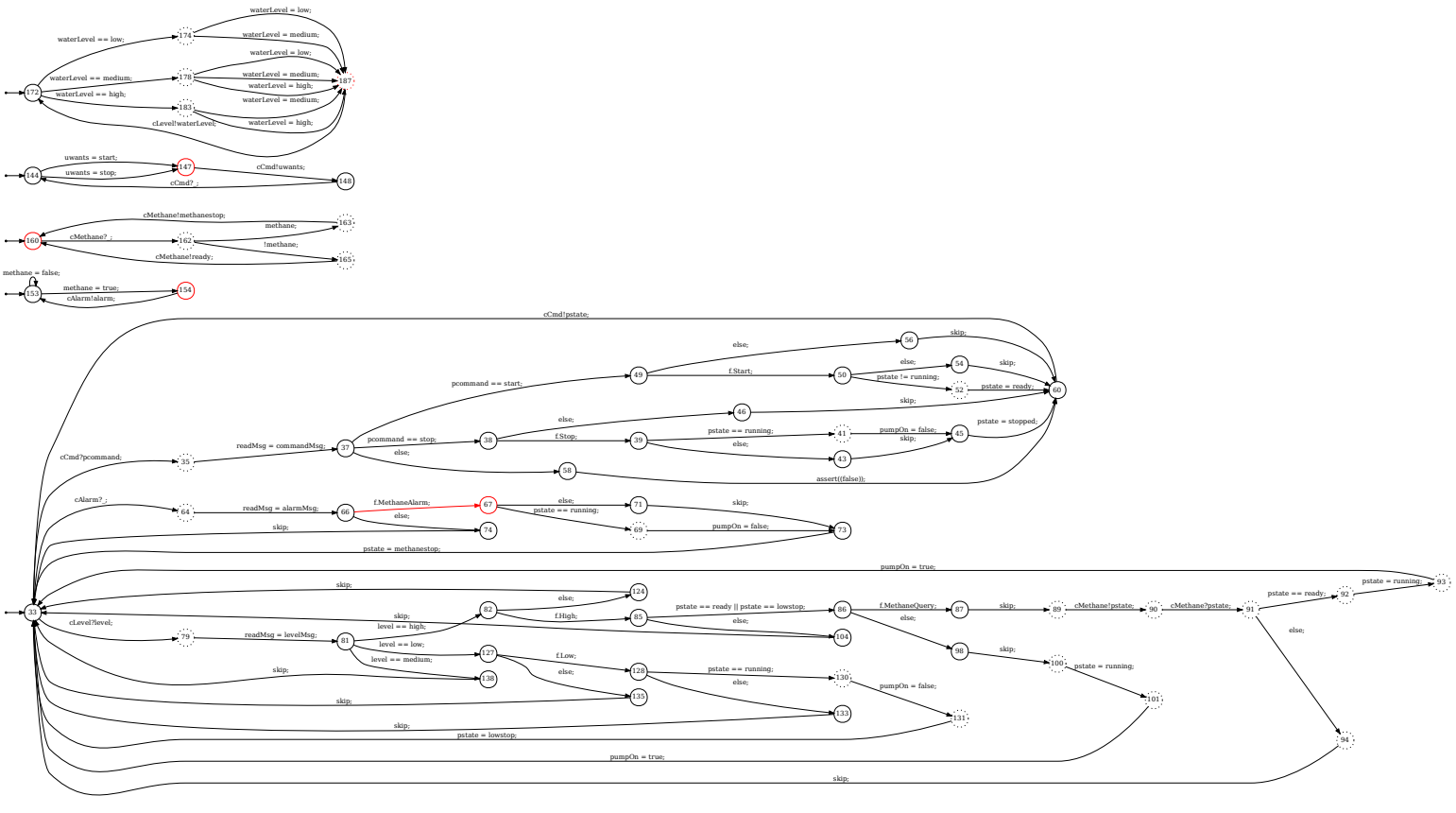
pstate = running;
pstate = lowstop;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waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
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148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
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pcommand == start;
skip;
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else;
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pstate == running;
pumpOn = false;
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pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
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58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
pstate == running;
skip;
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69
pumpOn = false;
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skip;
pstate = methanestop;
pumpOn = true;
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skip;
124
else;
82
f.High;
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else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
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135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
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cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
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else;
98
skip;
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pstate = running;
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pstate == running;
else;
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skip;
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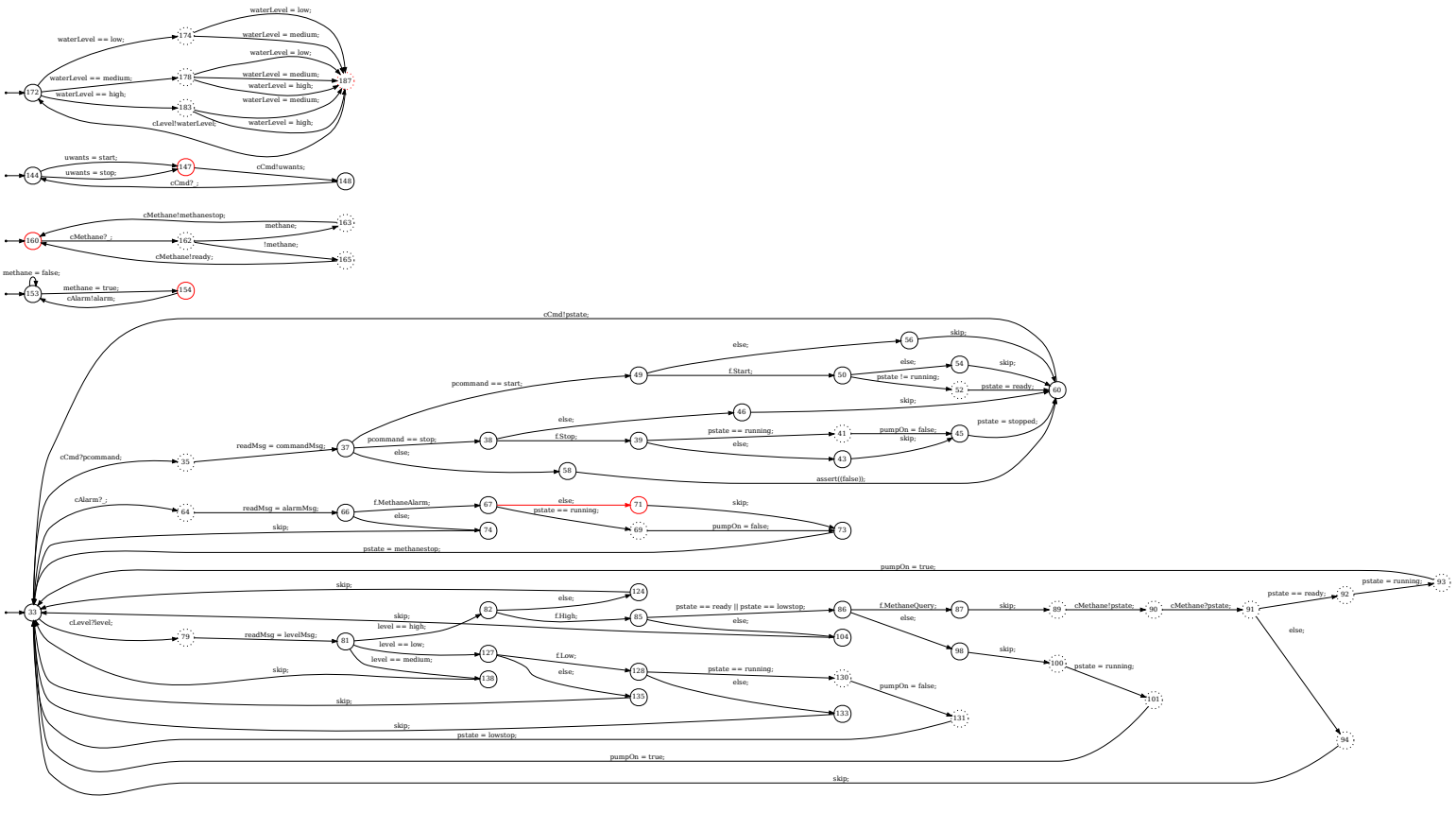
skip;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waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
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163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
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methane = false;
methane = true;
cAlarm!alarm;
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cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
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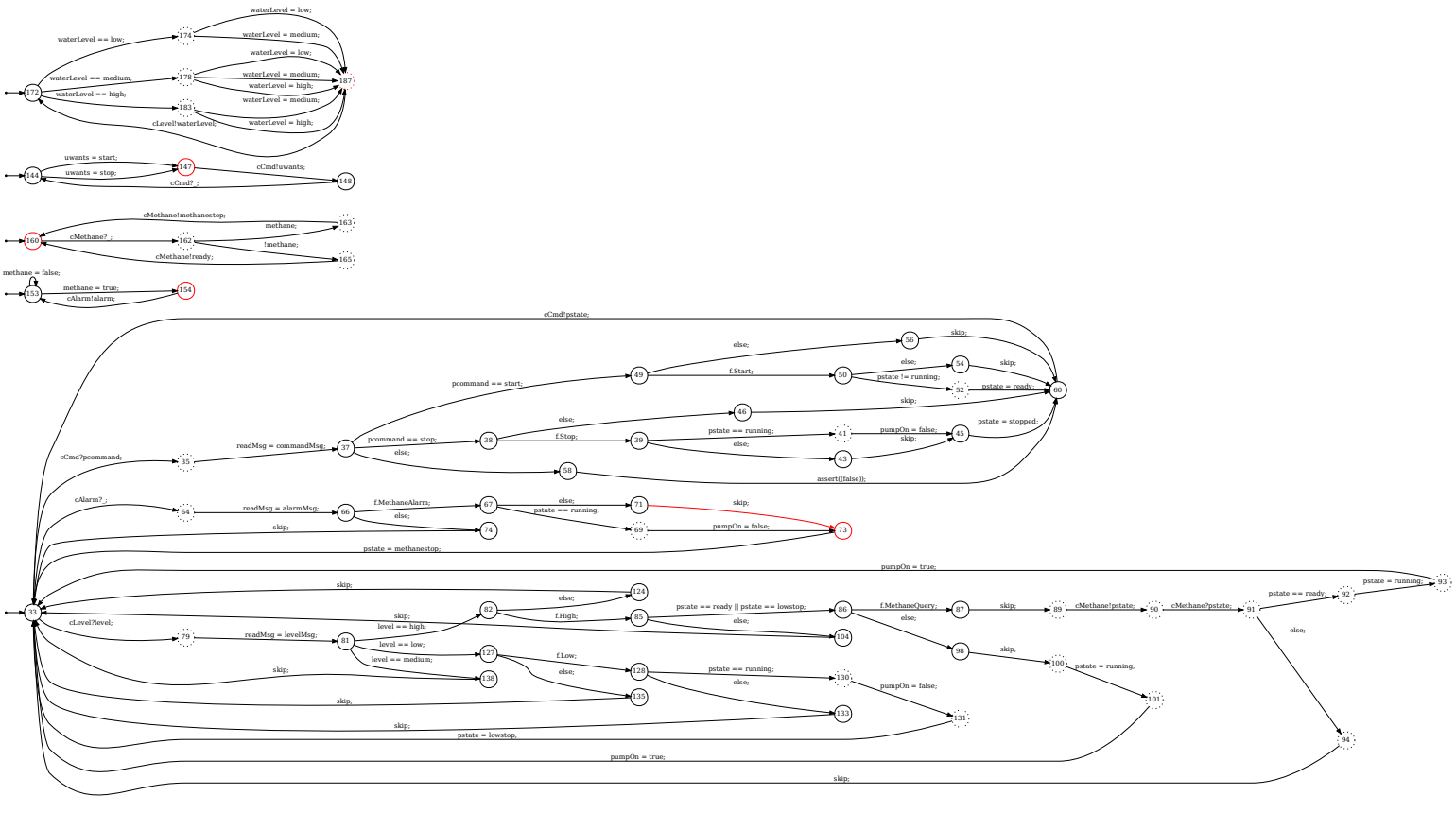
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waterLevel = low;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
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cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
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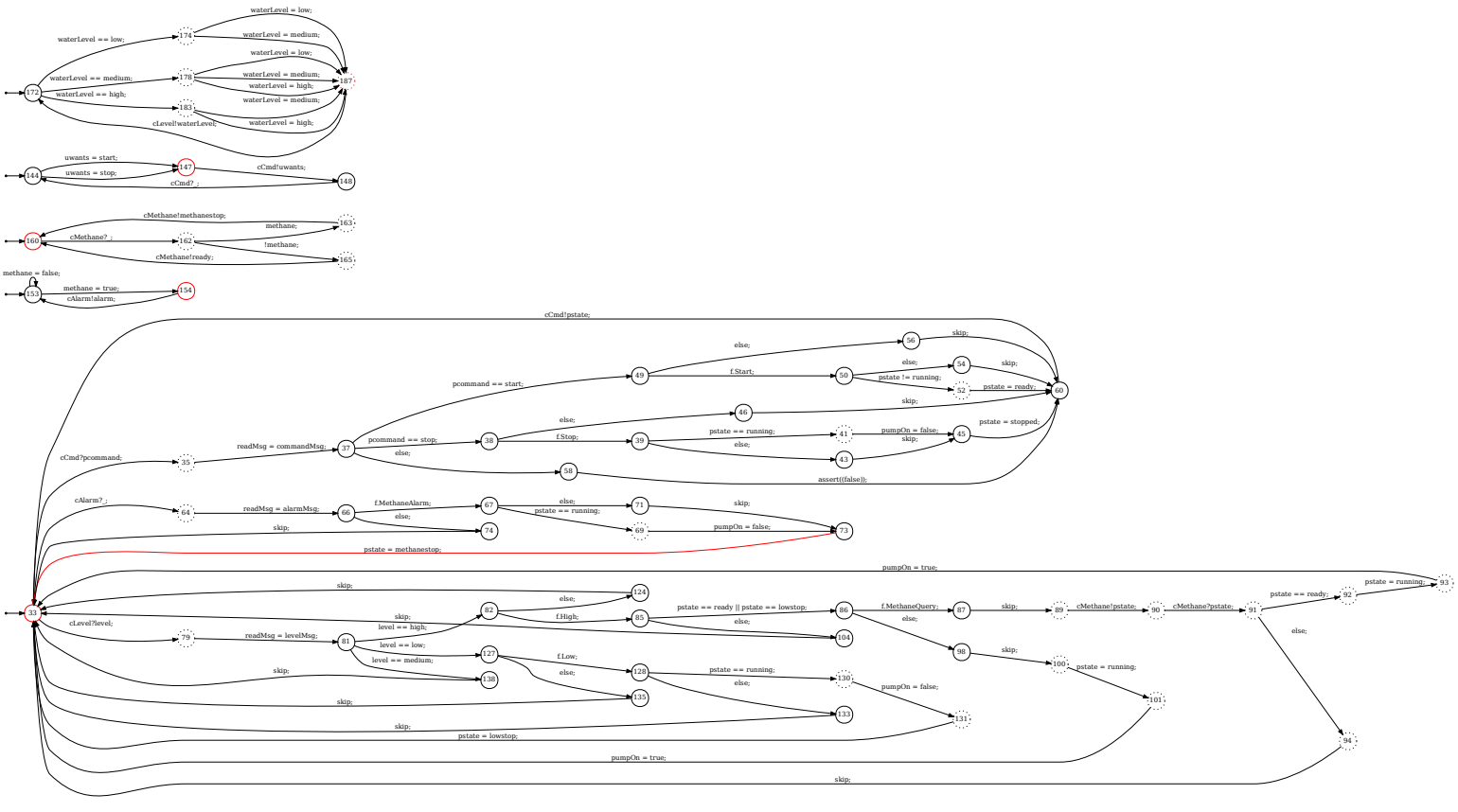
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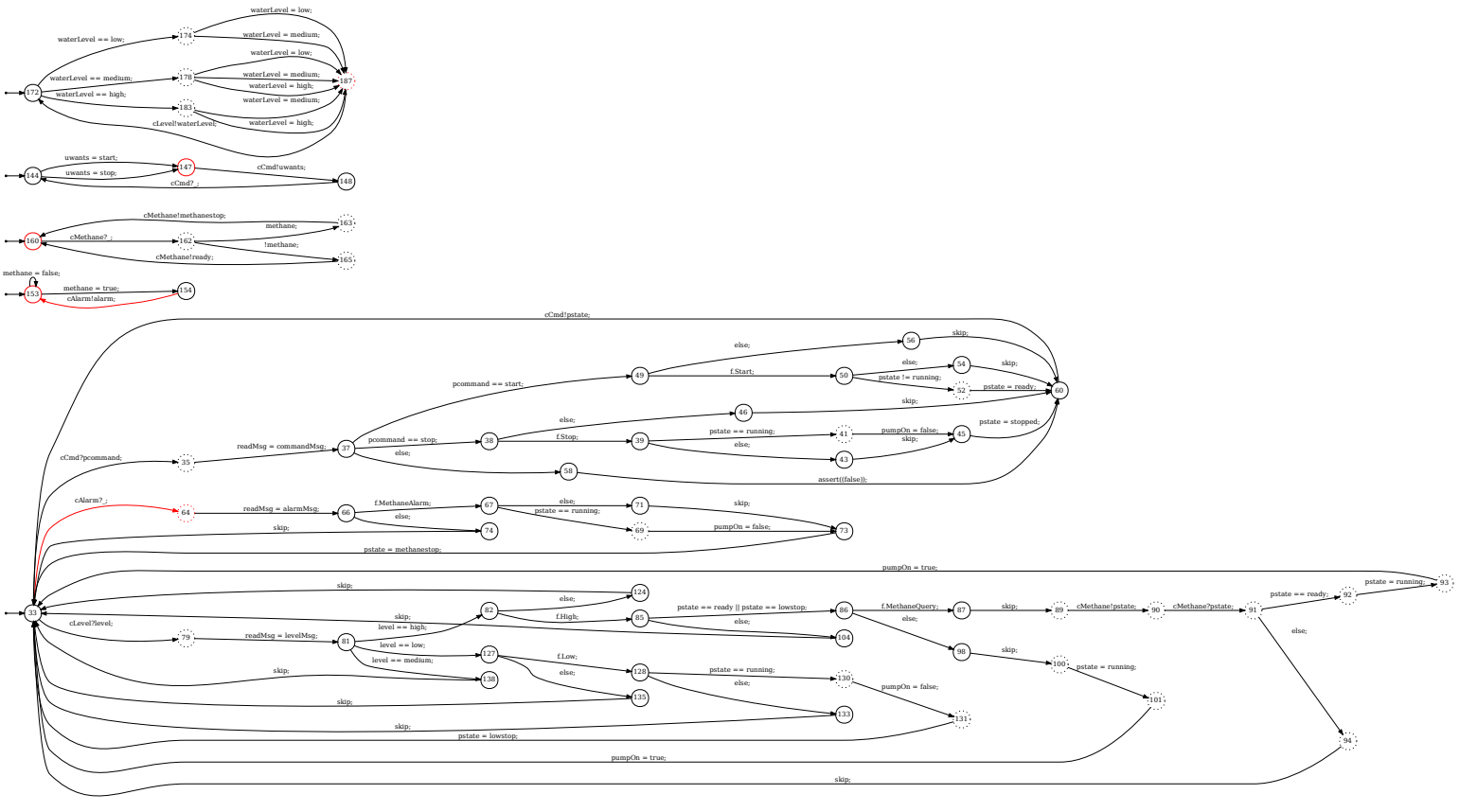
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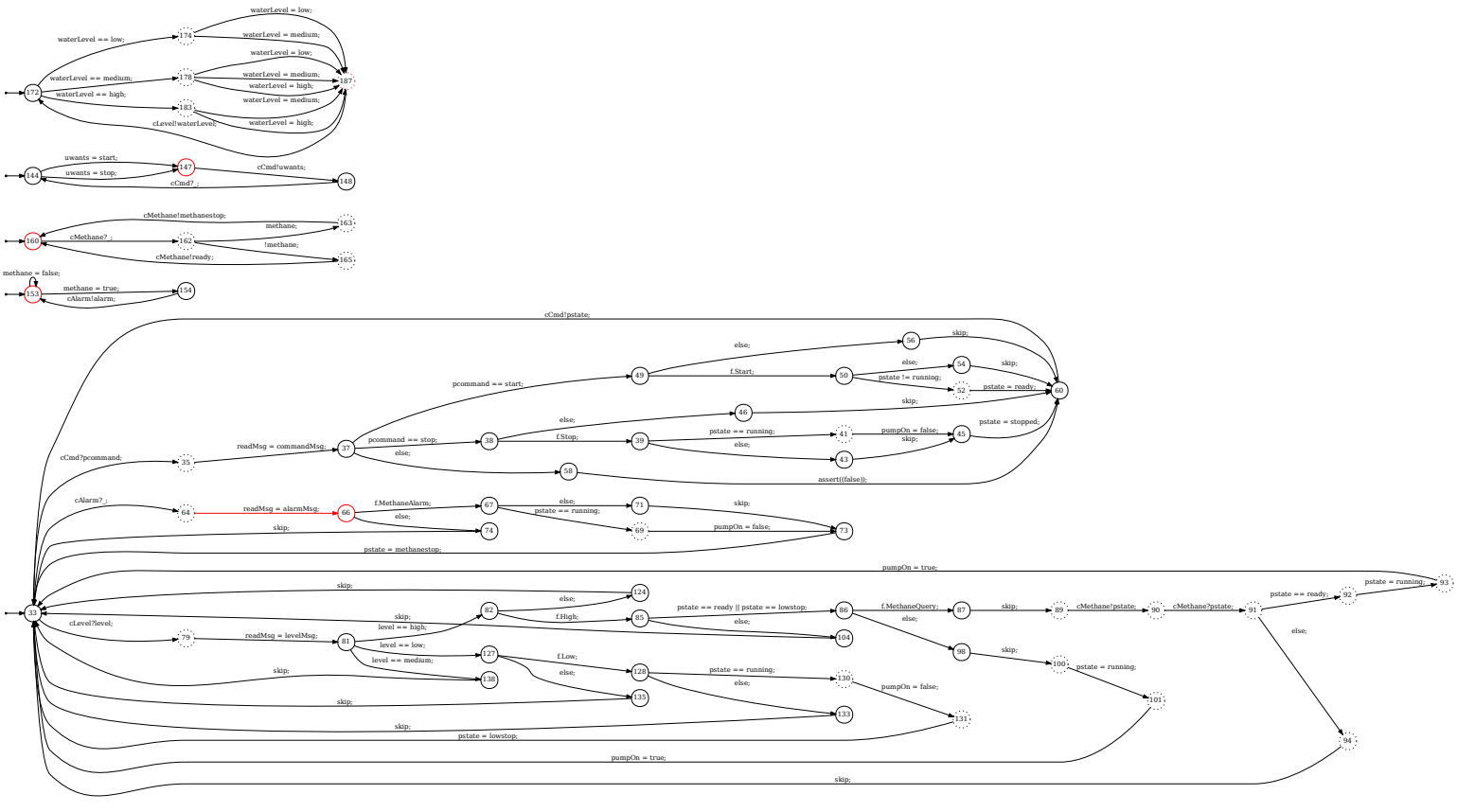
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready;
92
pstate = running;
93
94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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pumpOn = false;
skip;
f.Stop;
39
pstate == running;
else;
43
38
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
else;
104
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
98
skip;
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pstate = running;
101
94
138
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skip;
skip;
skip;
pstate = lowstop;
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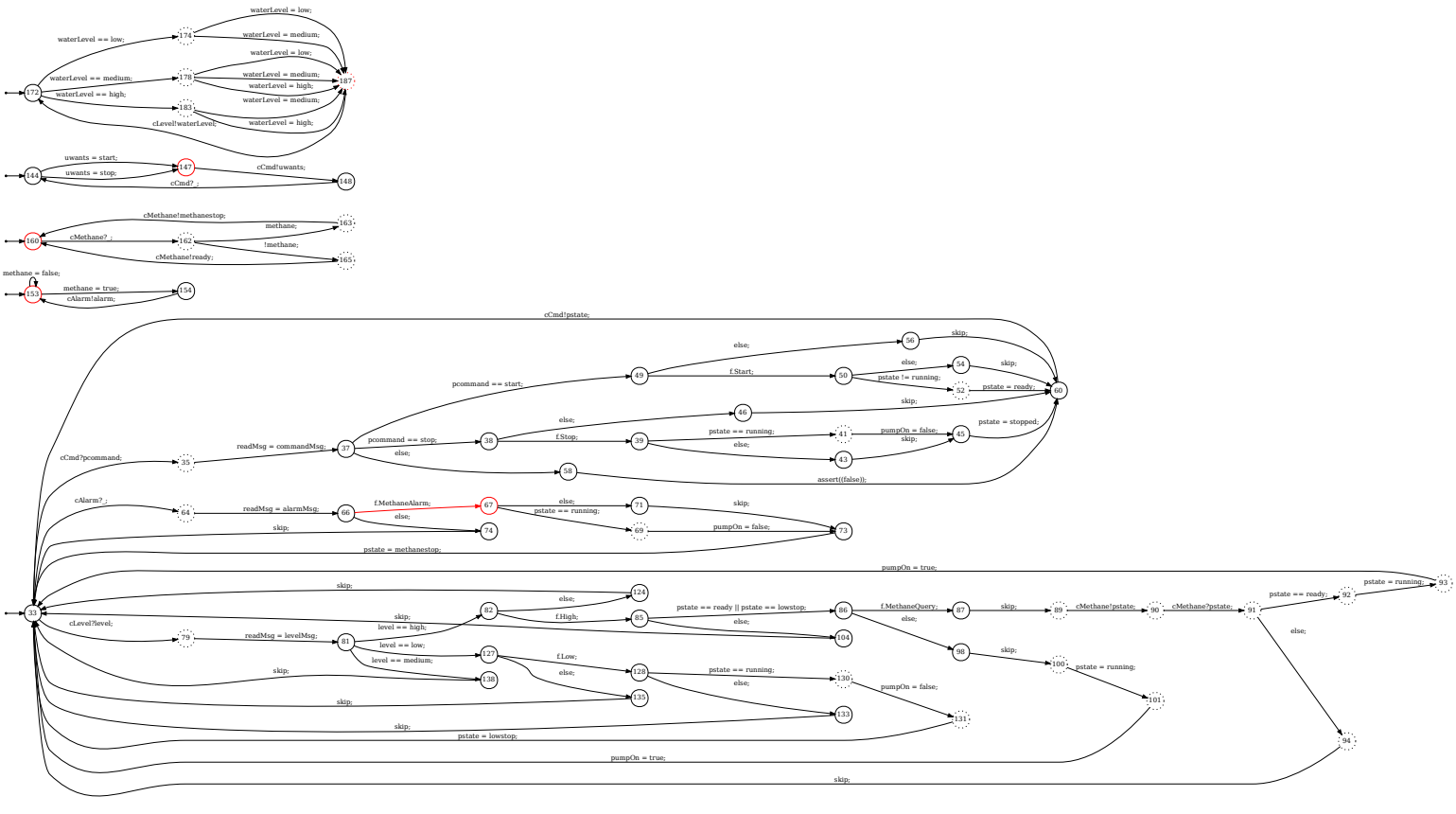
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
60
skip;
46
else;
pcommand == start;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
39
f.Stop;
38
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
skip;
level == high;
f.High;
85
else;
104
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
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skip;
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pstate = lowstop;
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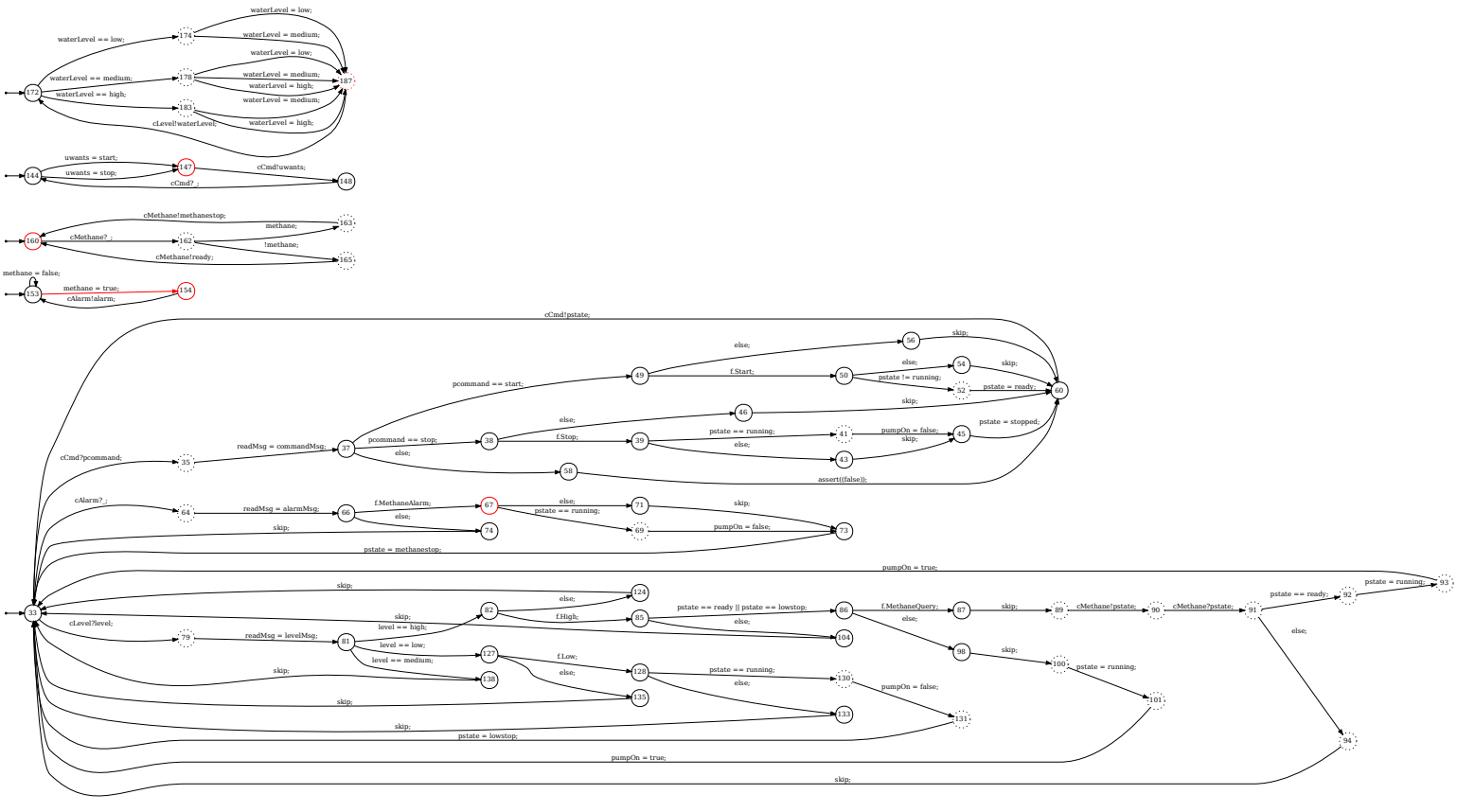
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waterLevel = medium;
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cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
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skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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else;
pstate == ready;
92
pstate = running;
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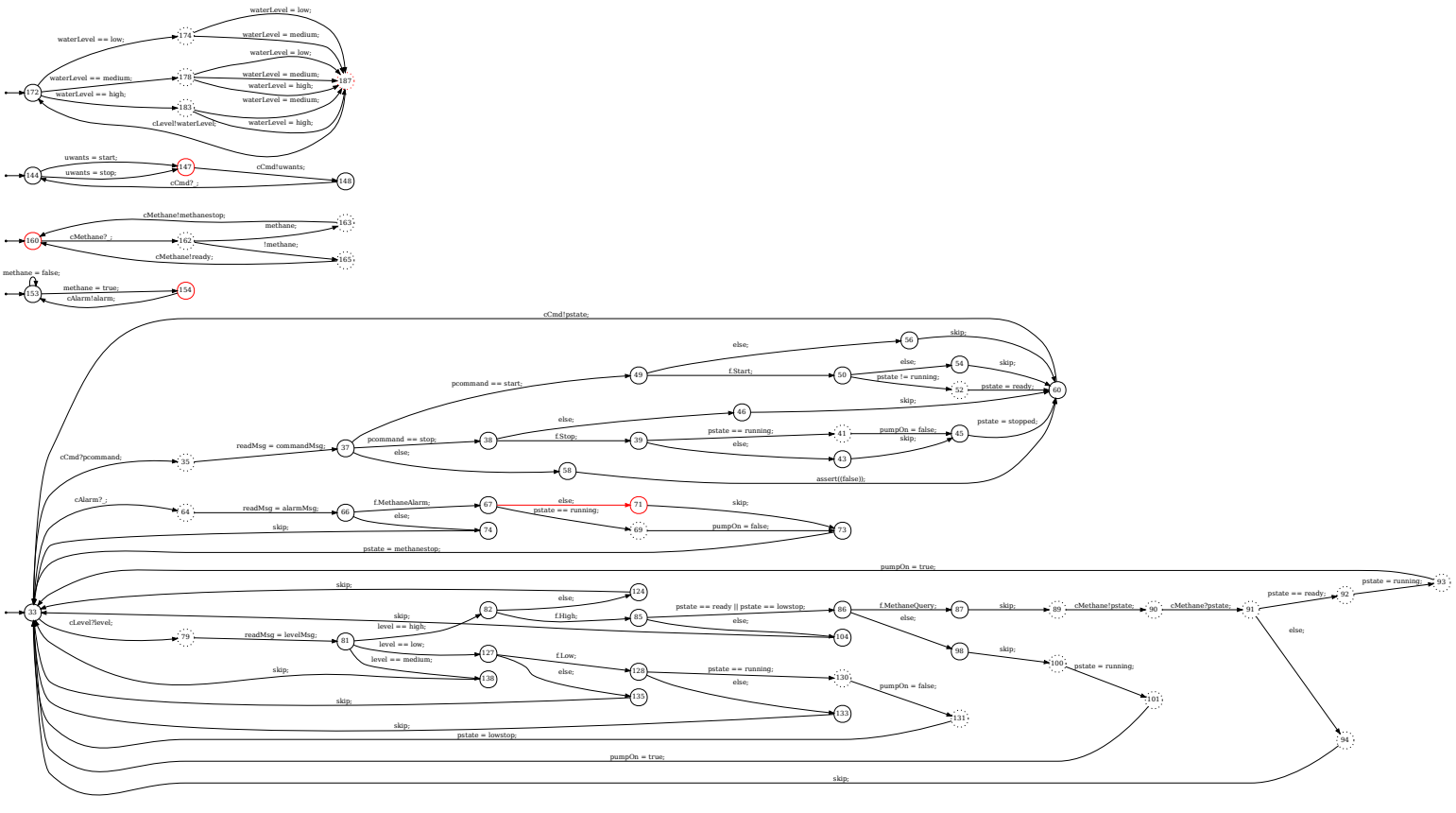
94
pumpOn = true;
skip;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waterLevel = low;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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101
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124
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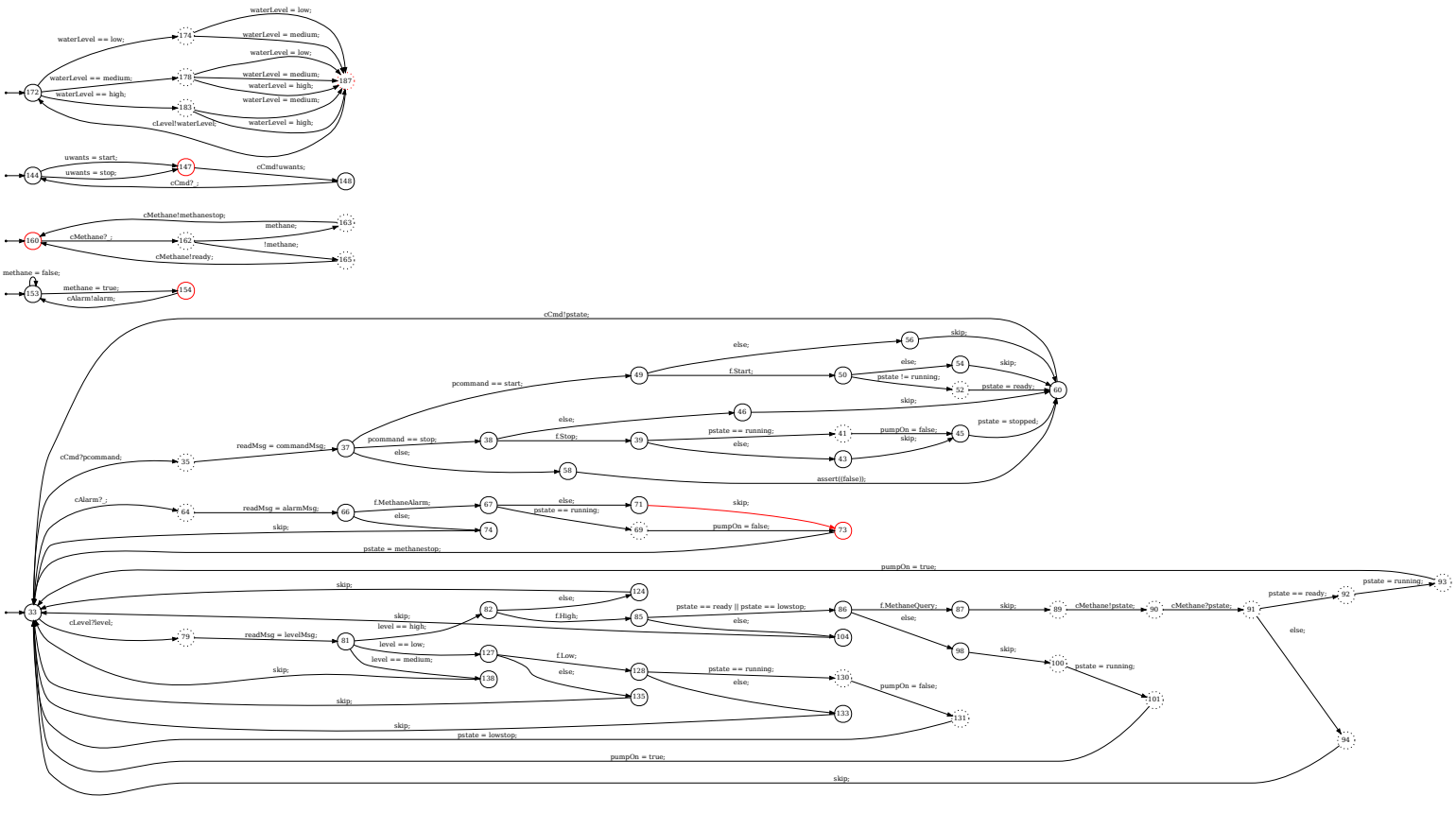
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
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56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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101
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124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
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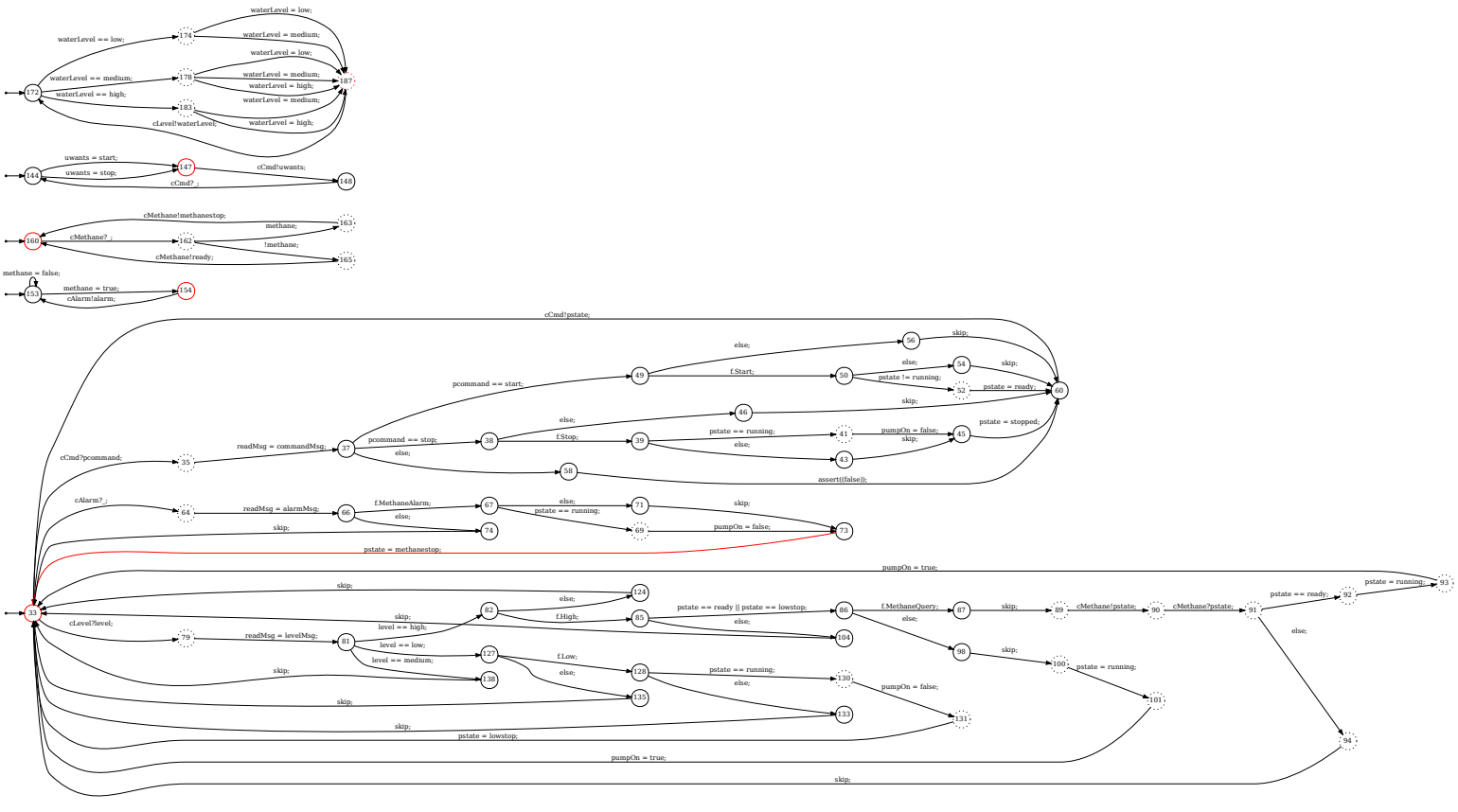
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel = low;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
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172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
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else;
pumpOn = false;
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skip;
135
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skip;
pstate = lowstop;
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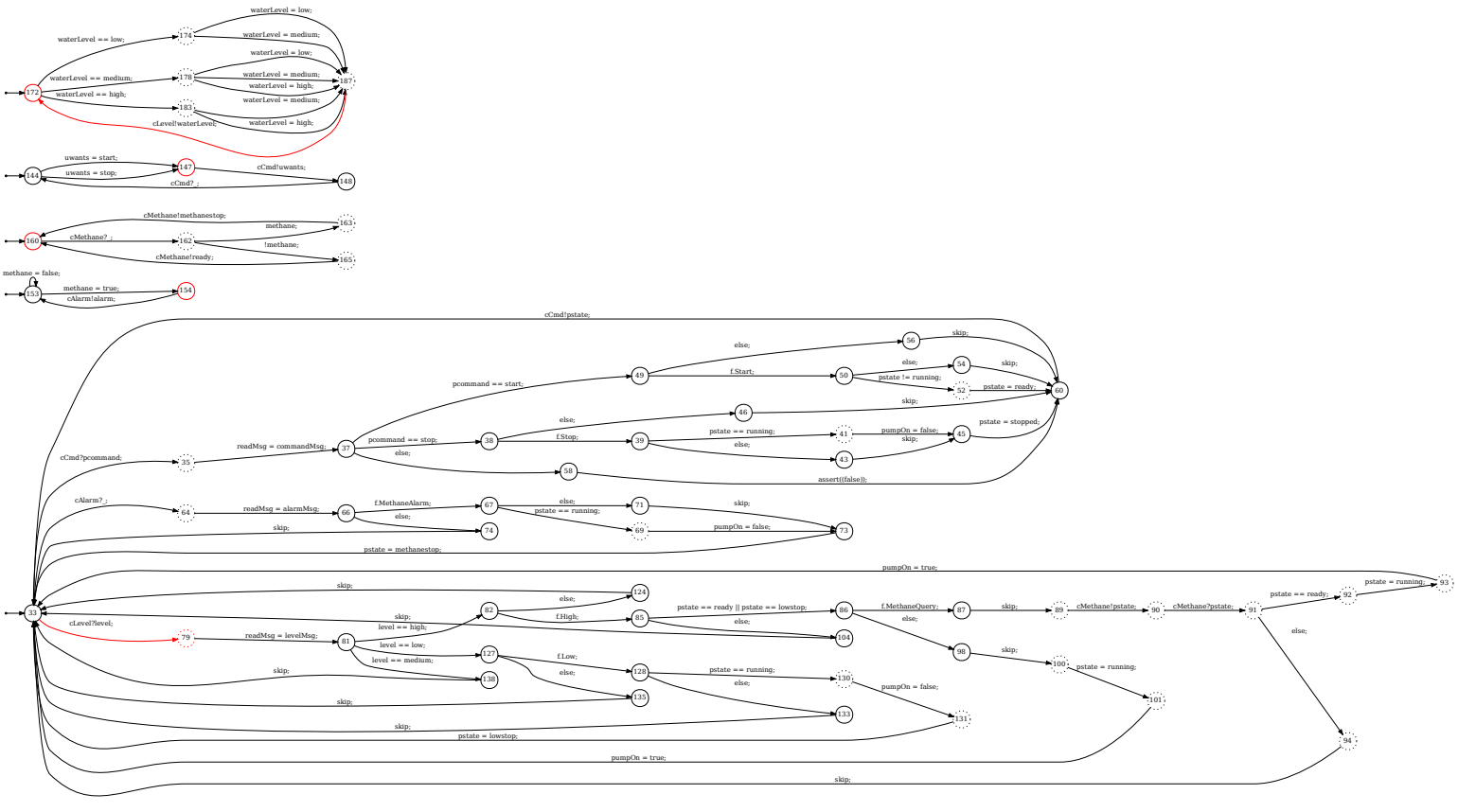
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
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38
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assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
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124
else;
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85
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cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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pstate = running;
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pumpOn = false;
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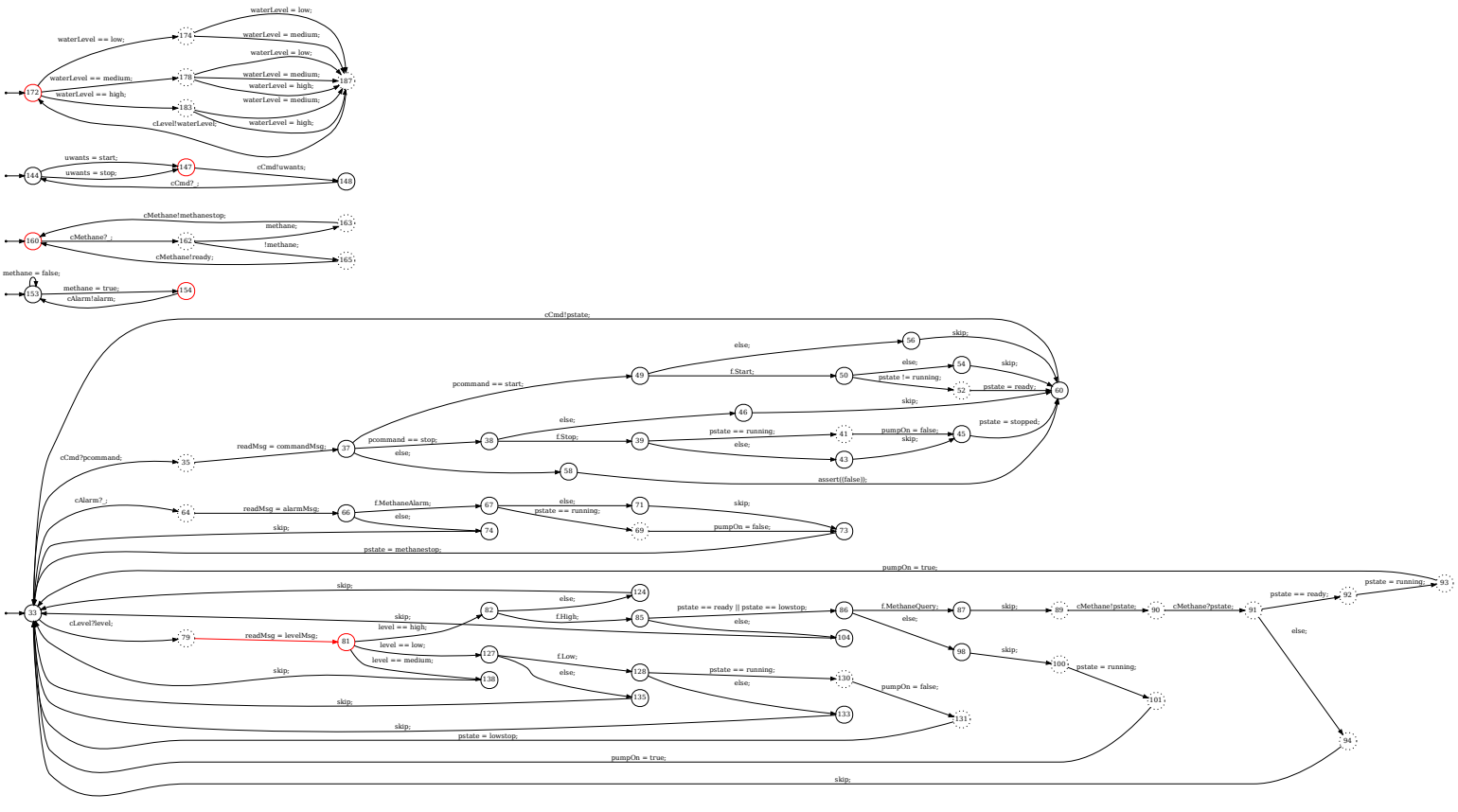
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
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cCmd!uwants;
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162
163
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cMethane? ;
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methane = false;
methane = true;
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skip;
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pstate = ready;
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pcommand == start;
skip;
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pstate == running;
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pstate = stopped;
skip;
else;
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else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
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pstate == running;
74
69
pumpOn = false;
73
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pstate = methanestop;
pumpOn = true;
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else;
82
f.High;
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else;
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cLevel?level;
79
readMsg = levelMsg;
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skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
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138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
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f.MethaneQuery;
else;
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cMethane!pstate;
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cMethane?pstate;
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pstate = running;
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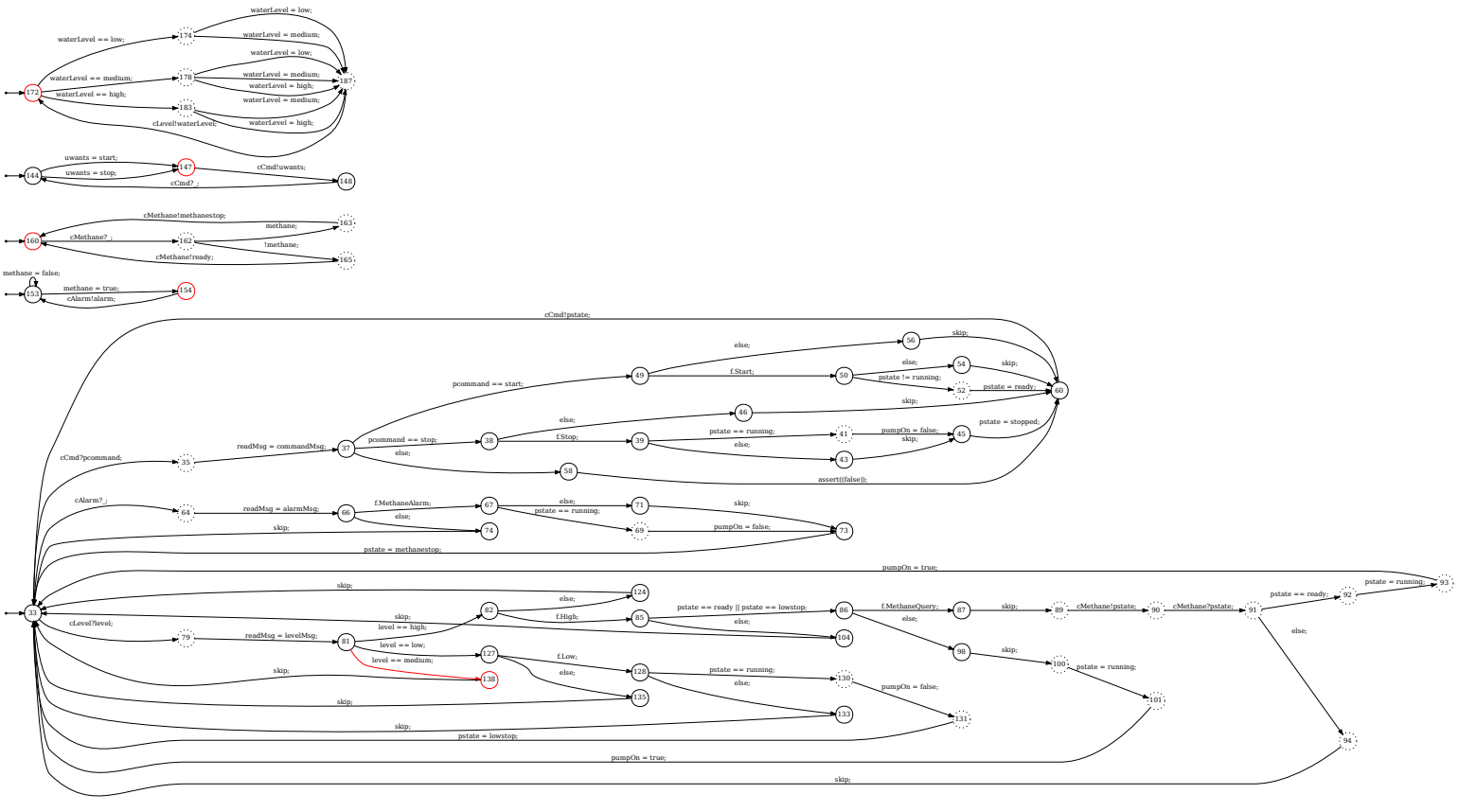
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waterLevel == low;
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waterLevel = low;
waterLevel == high;
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waterLevel = high;
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148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
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else;
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cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
135
138
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
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pstate == running;
else;
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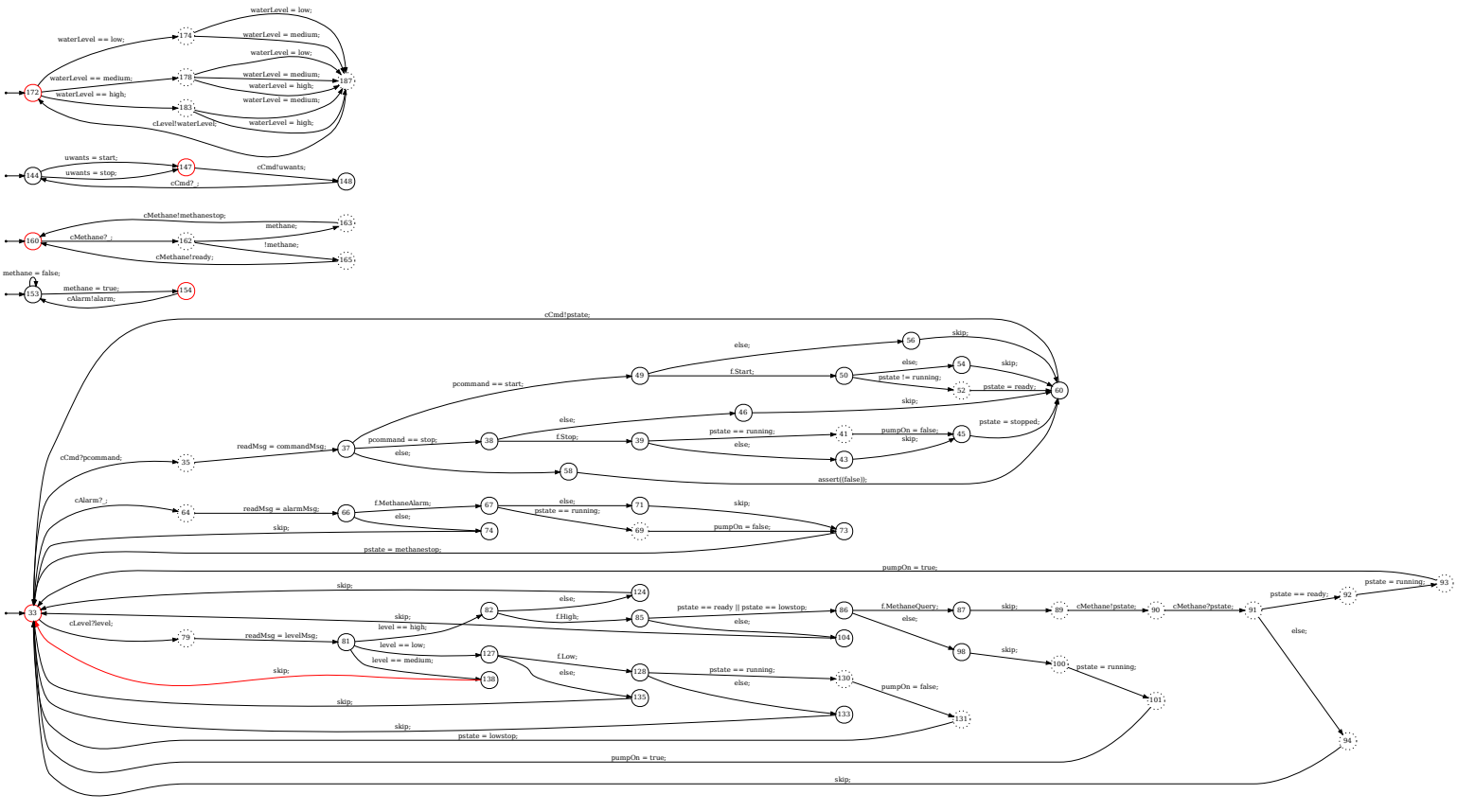
skip;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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
f.Stop;
39
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
133
131
138
135
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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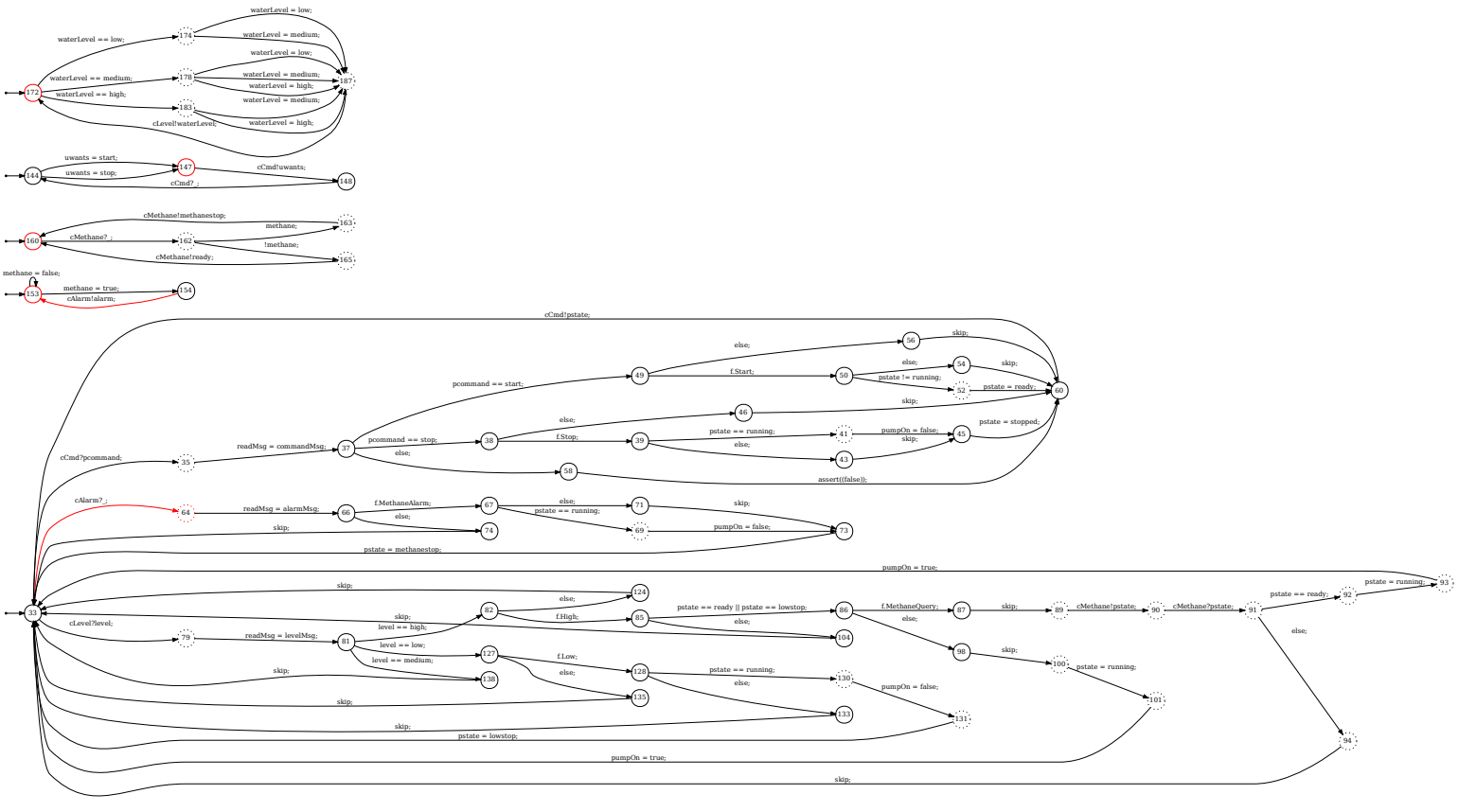
else;
98
skip;
100
pstate = running;
101
94
pstate == ready;
92
pstate = running;
93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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == stopped;
pumpOn = false;
45
skip;
38
39
43
f.Stop;
pstate == running;
else;
else;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
else;
98
skip;
100
pstate = running;
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pumpOn = false;
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133
131
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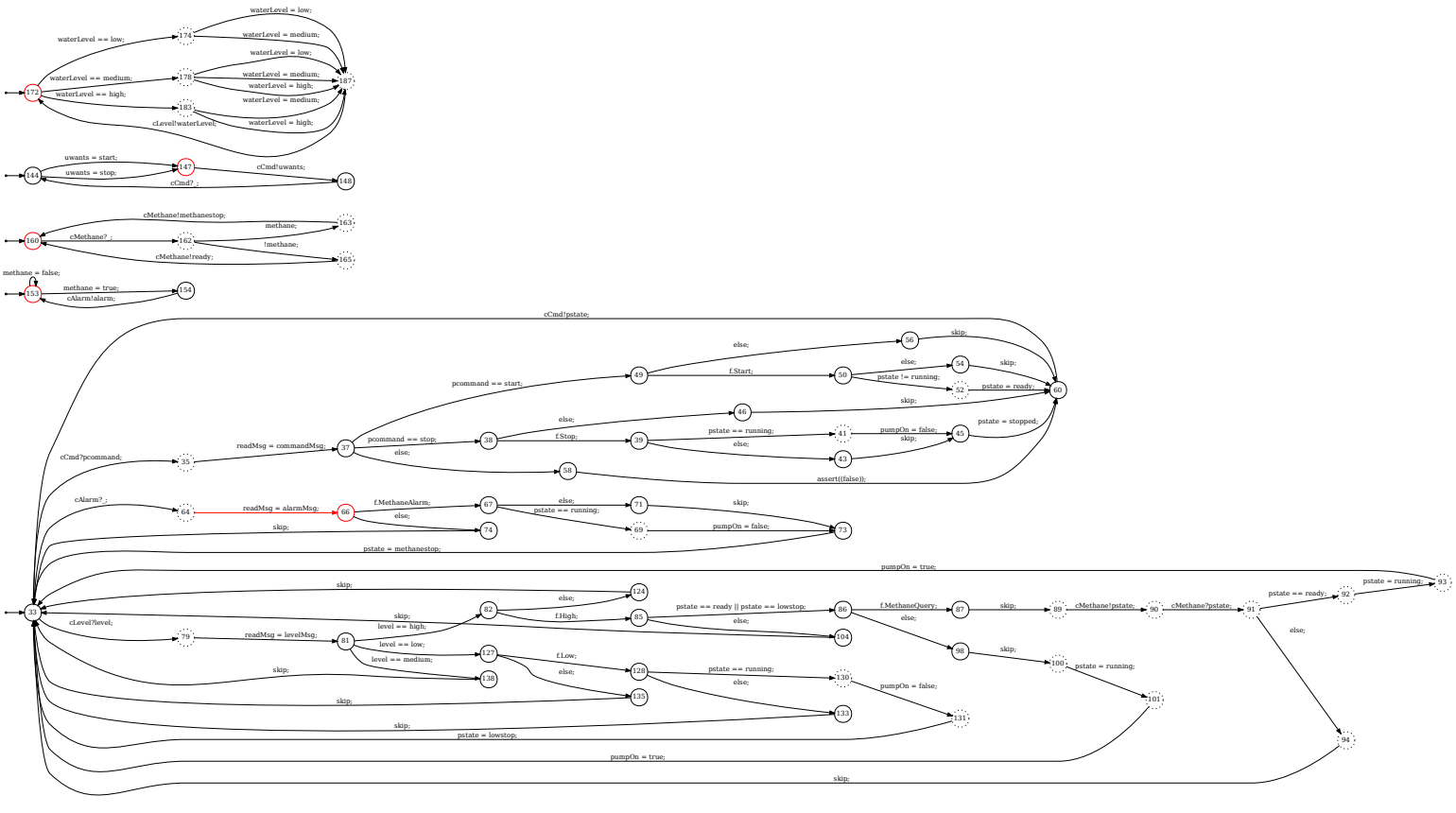
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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183
187
waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
33
79
81
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85
86
87
89
90
91
92
93
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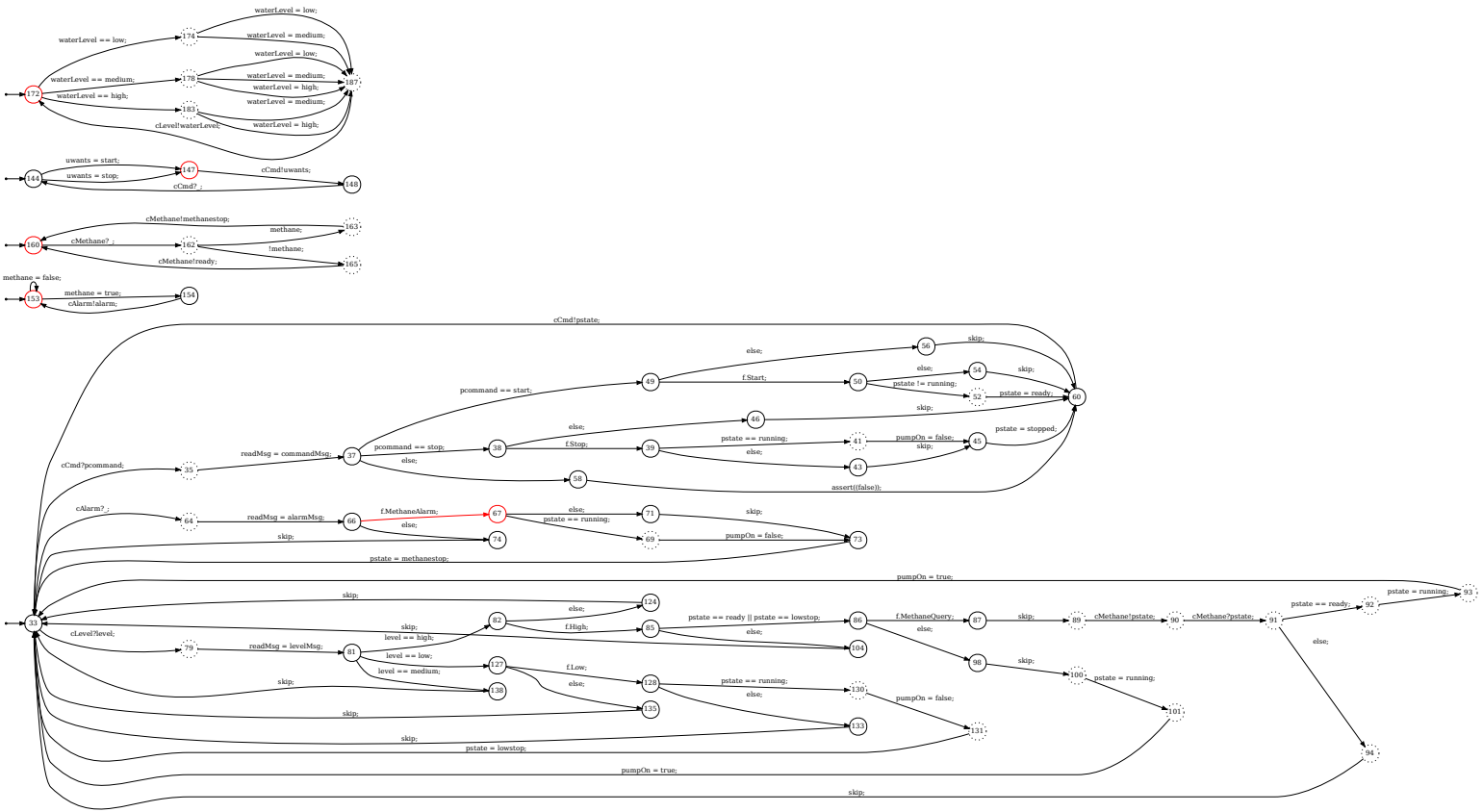
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate == ready;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
52
pcommand == start;
f.Start;
pstate != running;
pstate = ready;
60
46
skip;
else;
38
39
41
45
pstate = stopped;
f.Stop;
pstate == running;
pumpOn = false;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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skip;
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cMethane!pstate;
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cMethane?pstate;
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pstate == ready;
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else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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skip;
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pstate = running;
101
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138
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skip;
skip;
skip;
pstate = lowstop;
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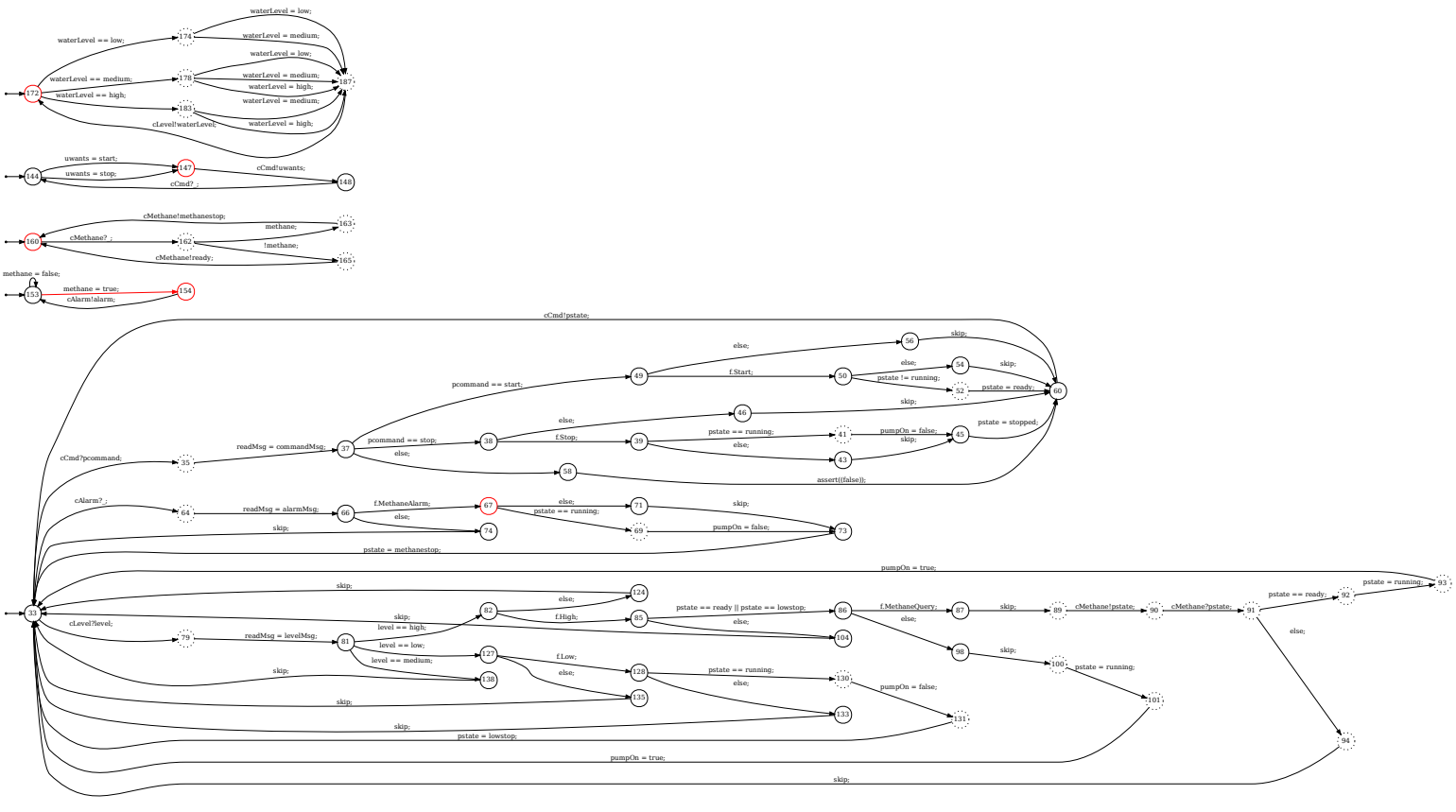
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
else;
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else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
133
131
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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else;
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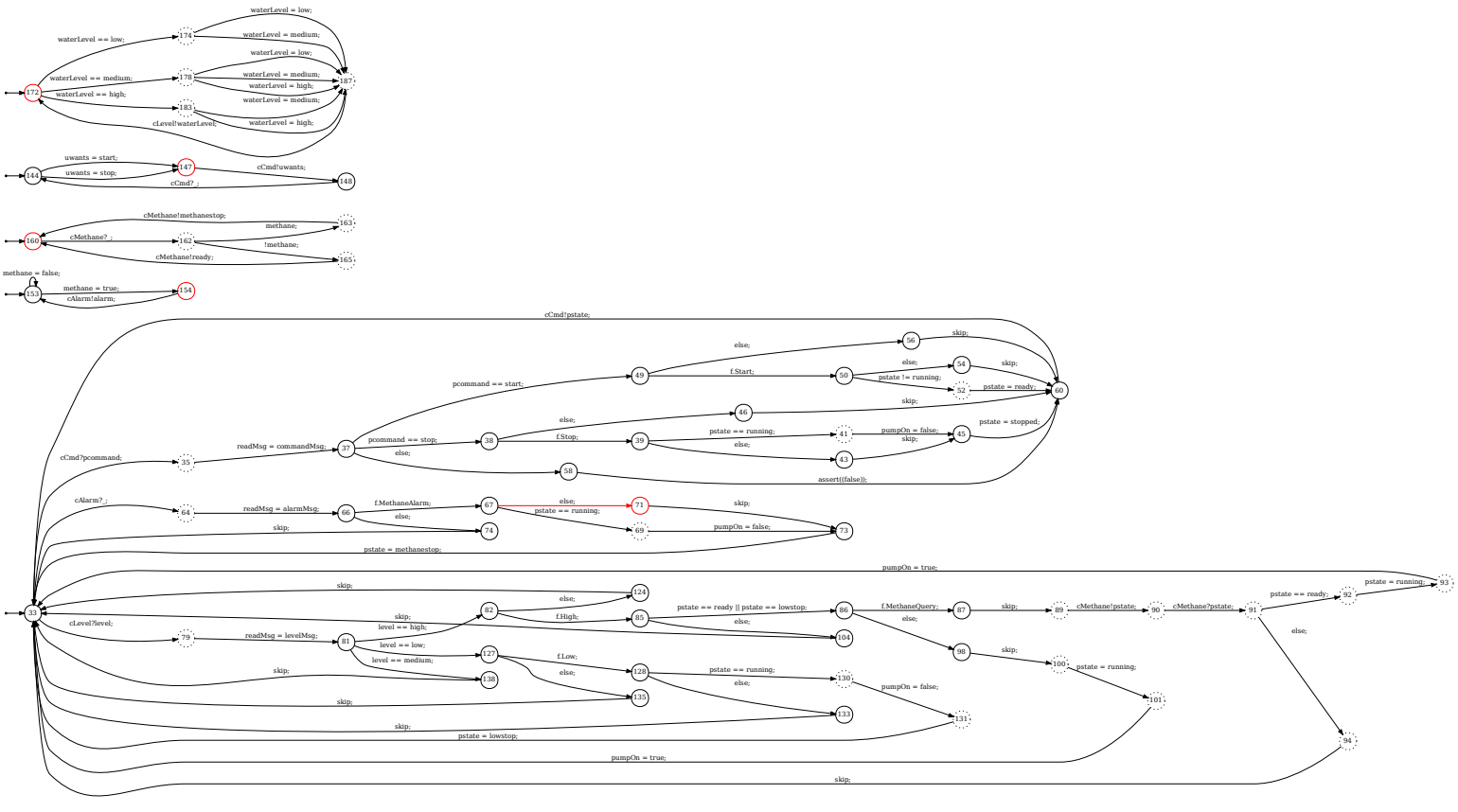
skip;
100
pstate = running;
101
94
pstate == ready;
92
pstate = running;
93
pumpOn = true;
skip;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183
187
waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
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41
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52
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56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
64
66
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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81
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85
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101
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124
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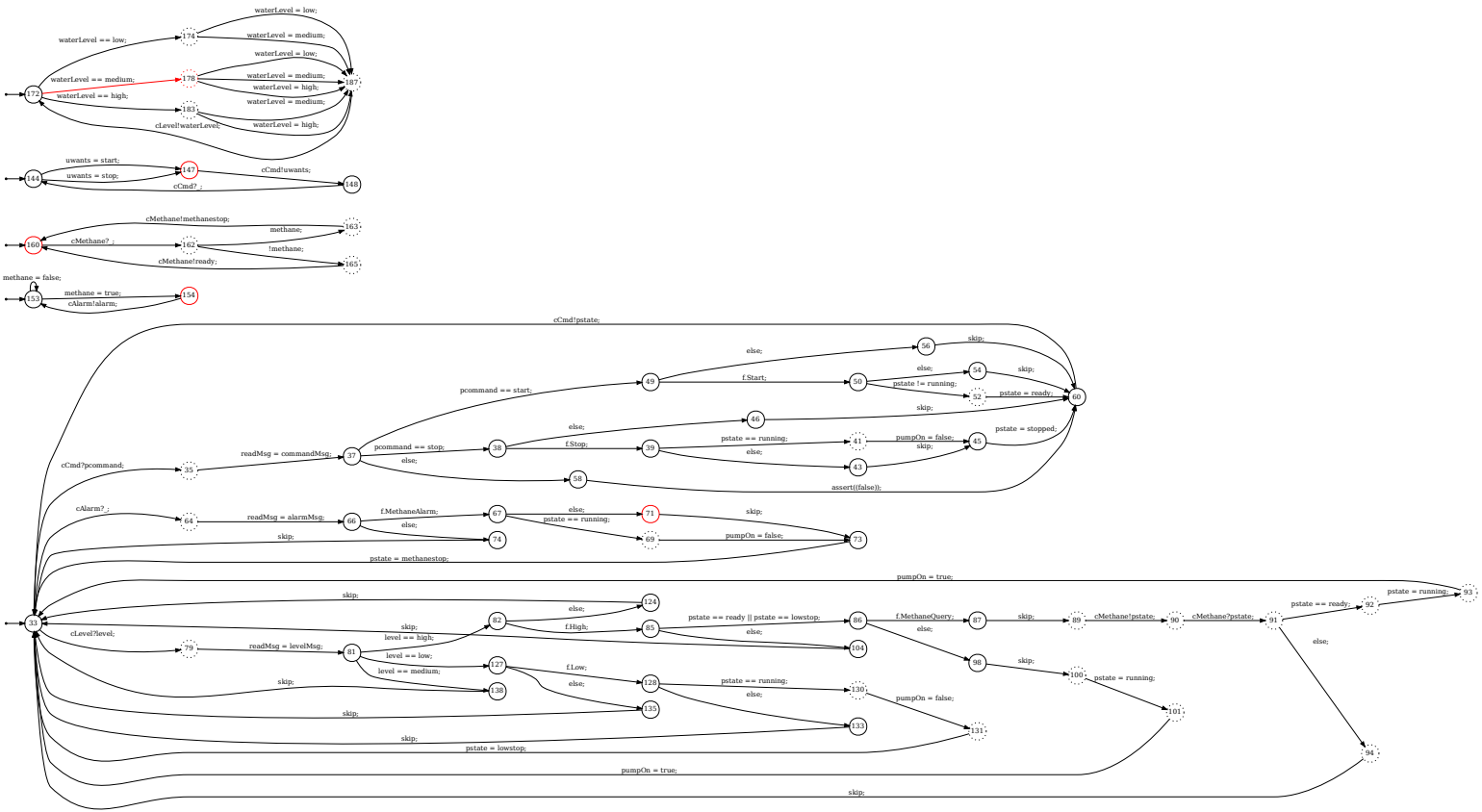
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate == ready;
pstate = lowstop;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183
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waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
pstate != running;
pstate = ready;
skip;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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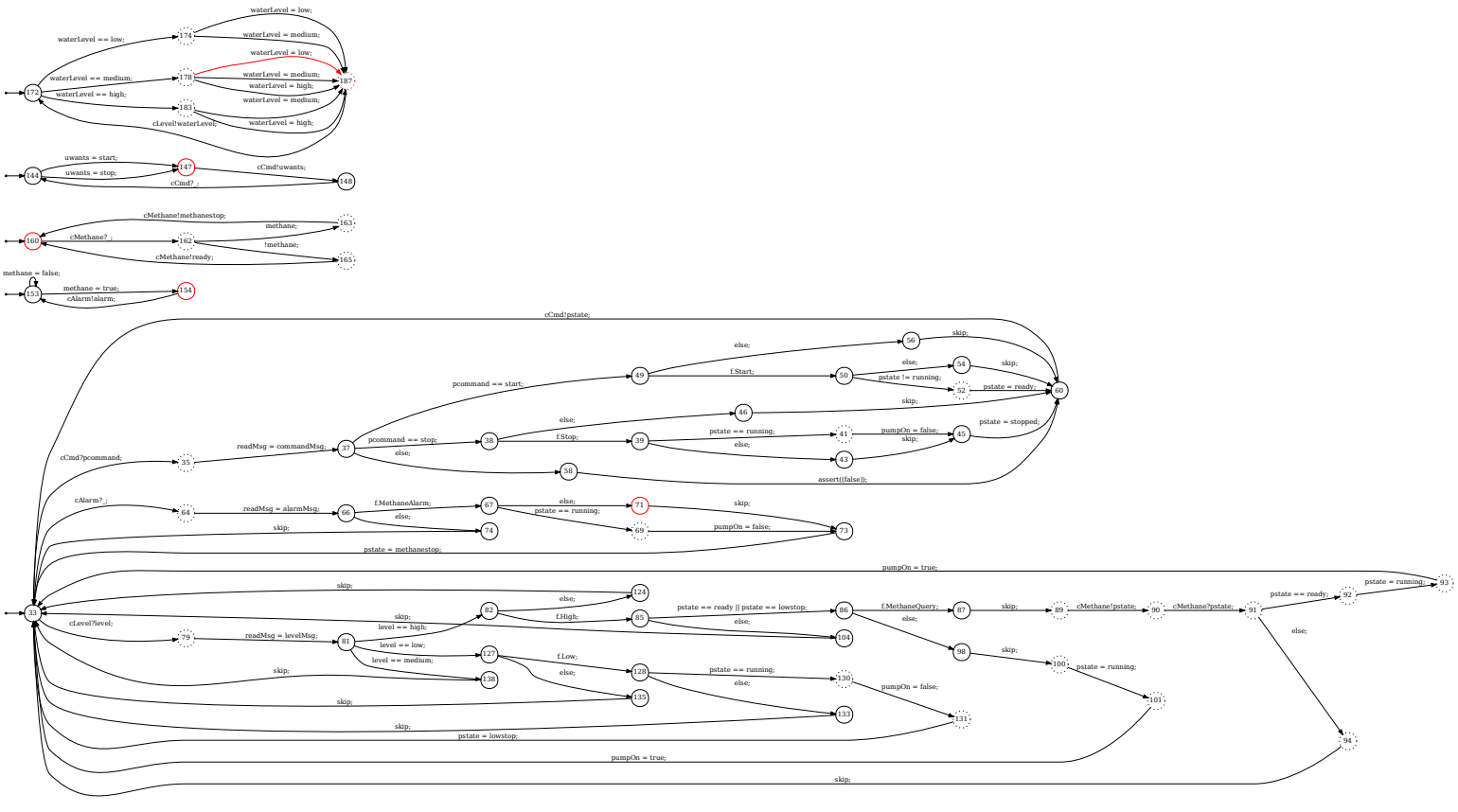
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
49
f.Start;
50
else;
54
skip;
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
131
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
93
else;
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skip;
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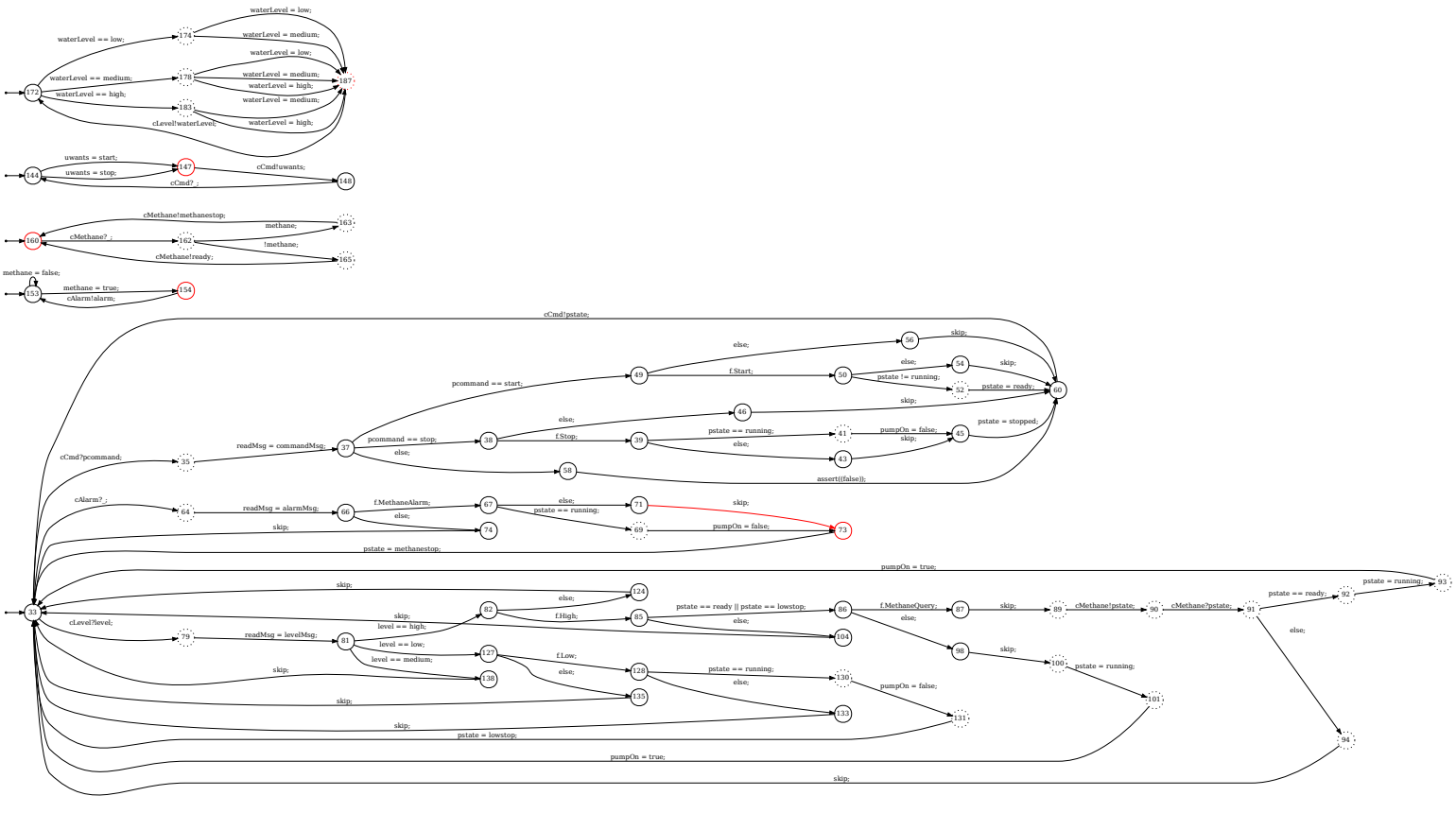
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
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160
162
163
165
cMethane!methanestop;
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methane;
!methane;
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methane = false;
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154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
79
81
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90
91
92
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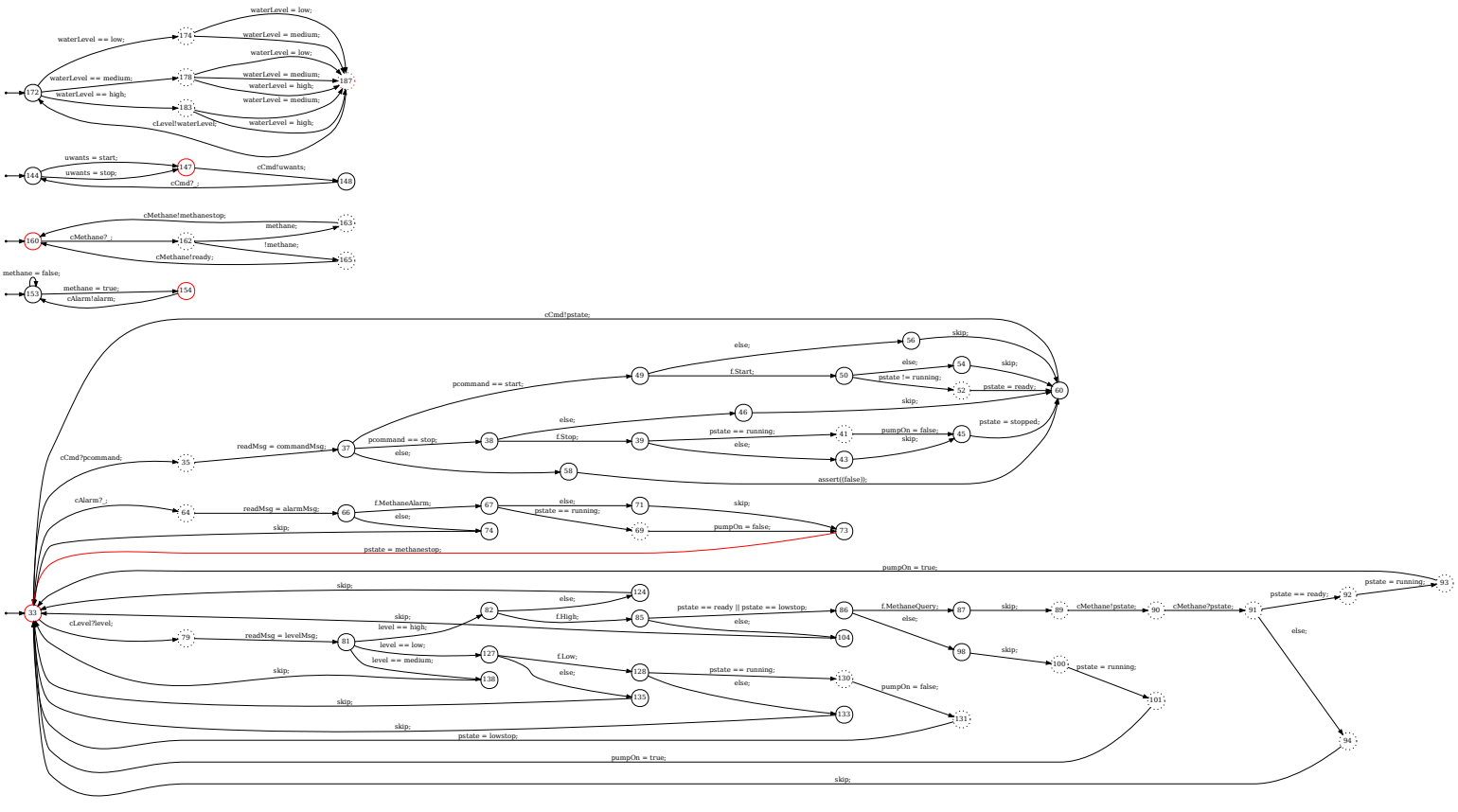
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == low;
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waterLevel = low;
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waterLevel = medium;
waterLevel = high;
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172
waterLevel == high;
183
waterLevel = medium;
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waterLevel = high;
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144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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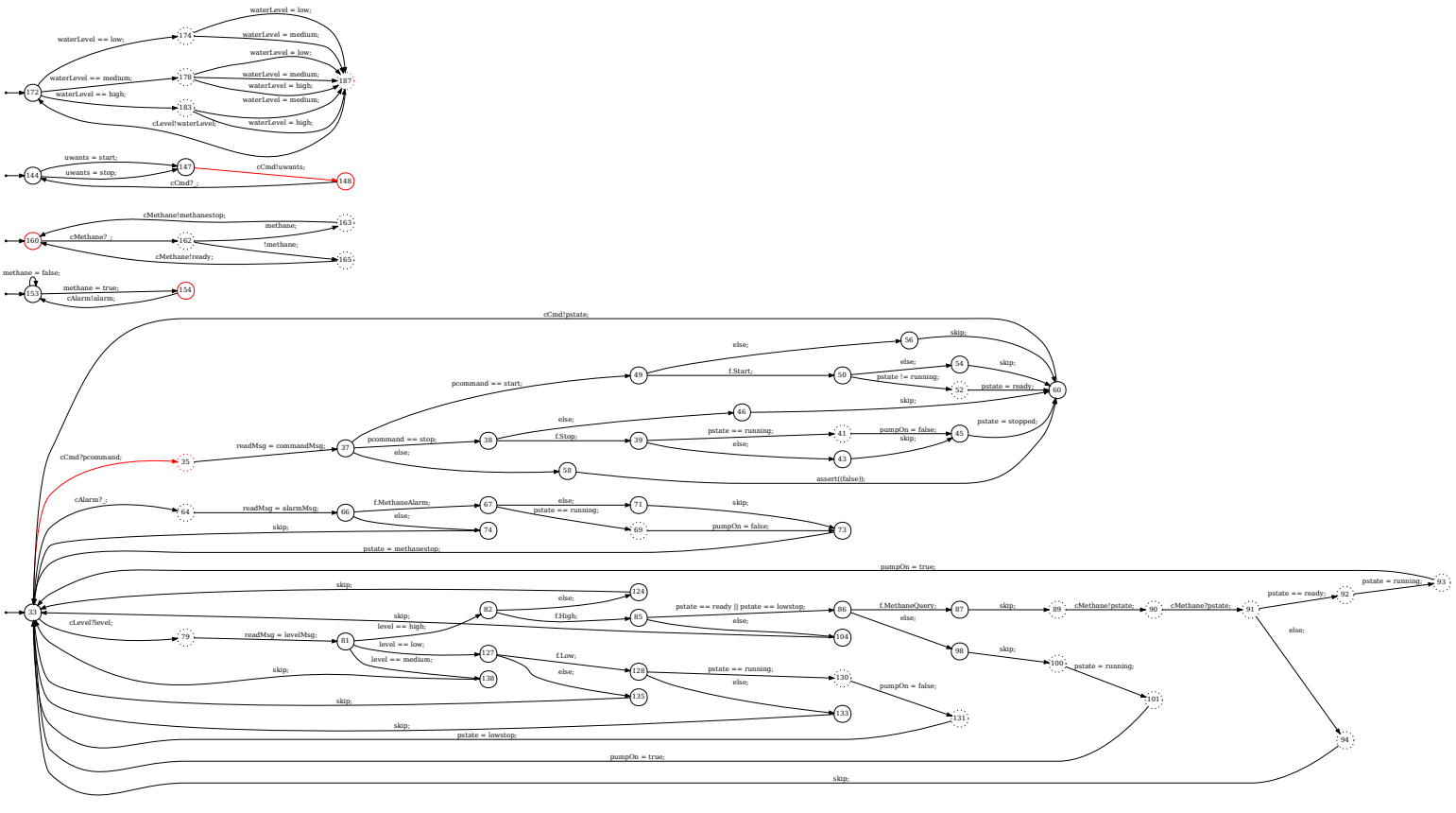
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
130
else;
pumpOn = false;
101
skip;
135
133
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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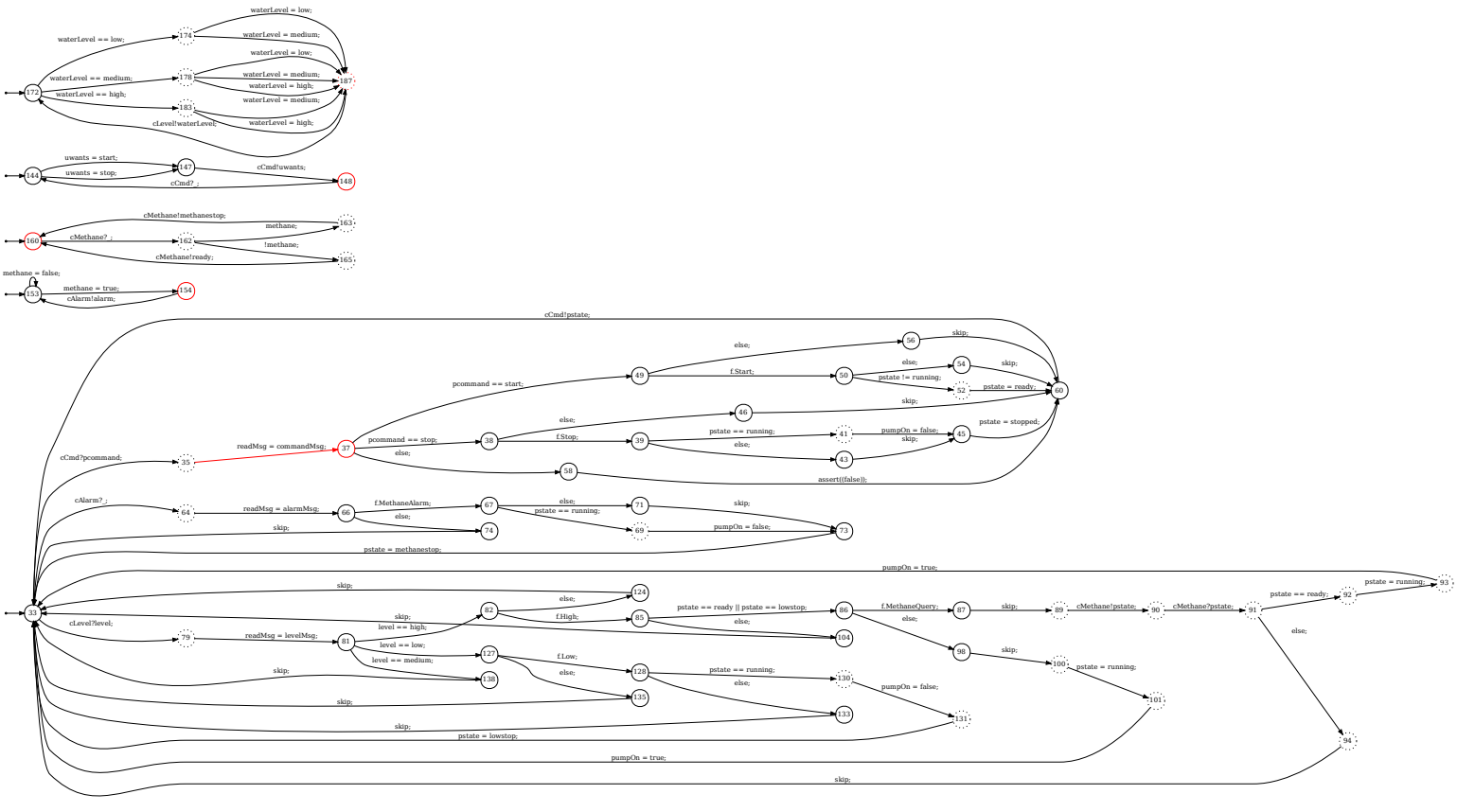
waterLevel == low;
174
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
pumpOn = false;
131
pstate == ready;
92
pstate = running;
93
94
pumpOn = true;
skip;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174
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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
else;
43
else;
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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67
else;
71
skip;
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74
69
pumpOn = false;
73
skip;
pstate = methanestop;
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33
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124
else;
82
f.High;
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level == high;
cLevel?level;
79
readMsg = levelMsg;
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level == low;
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level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
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86
f.MethaneQuery;
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89
cMethane!pstate;
90
cMethane?pstate;
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98
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pstate = running;
101
pstate == running;
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else;
pumpOn = false;
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131
pstate = lowstop;
pumpOn = true;
skip;
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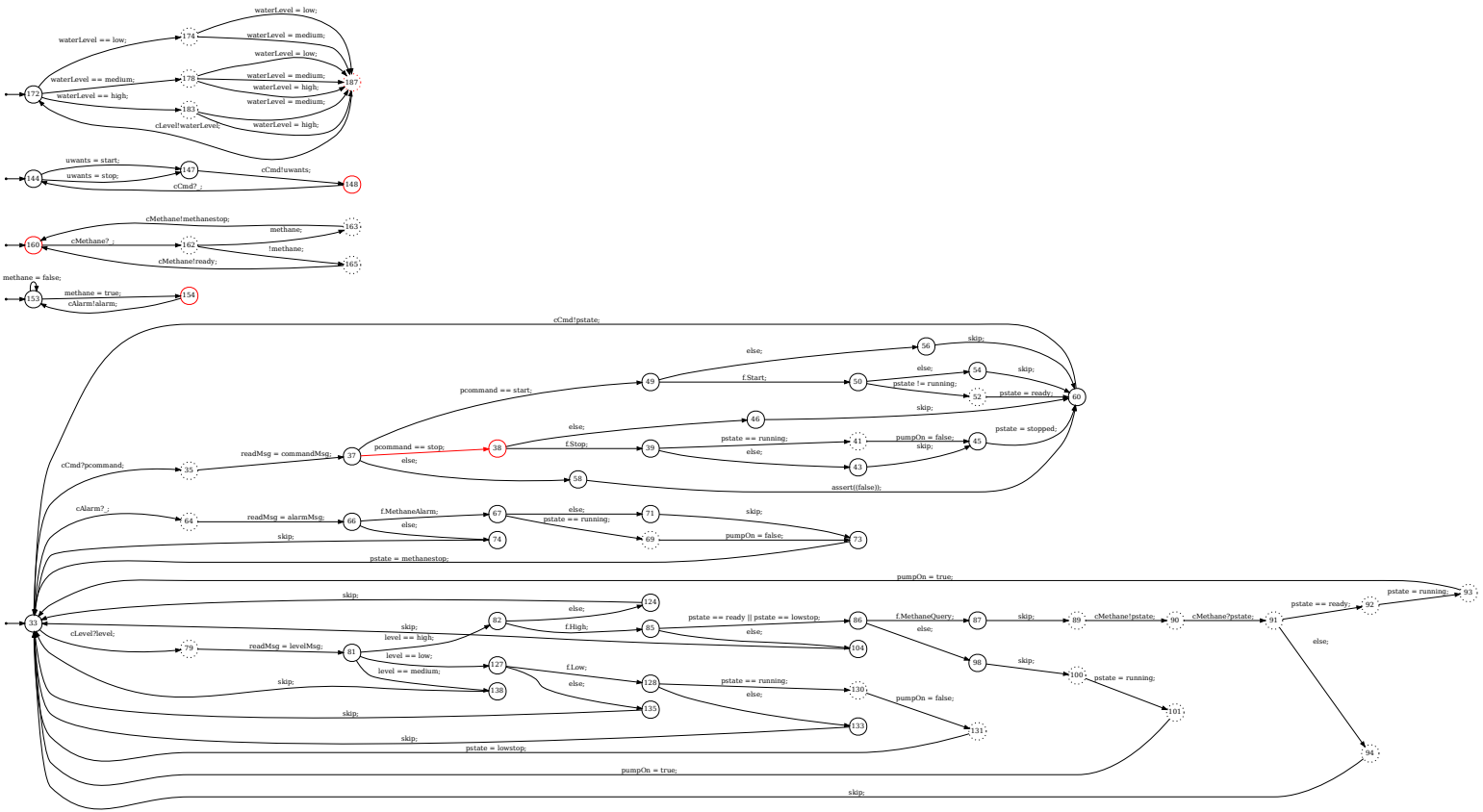
pstate = ready;
93
94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waterLevel == low;
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waterLevel = low;
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waterLevel == medium;
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waterLevel = medium;
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skip;
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f.Start;
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pumpOn = false;
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pstate = stopped;
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assert((false));
cCmd?pcommand;
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readMsg = commandMsg;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
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pstate == ready;
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pstate = running;
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100
pstate = running;
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pstate == running;
else;
130
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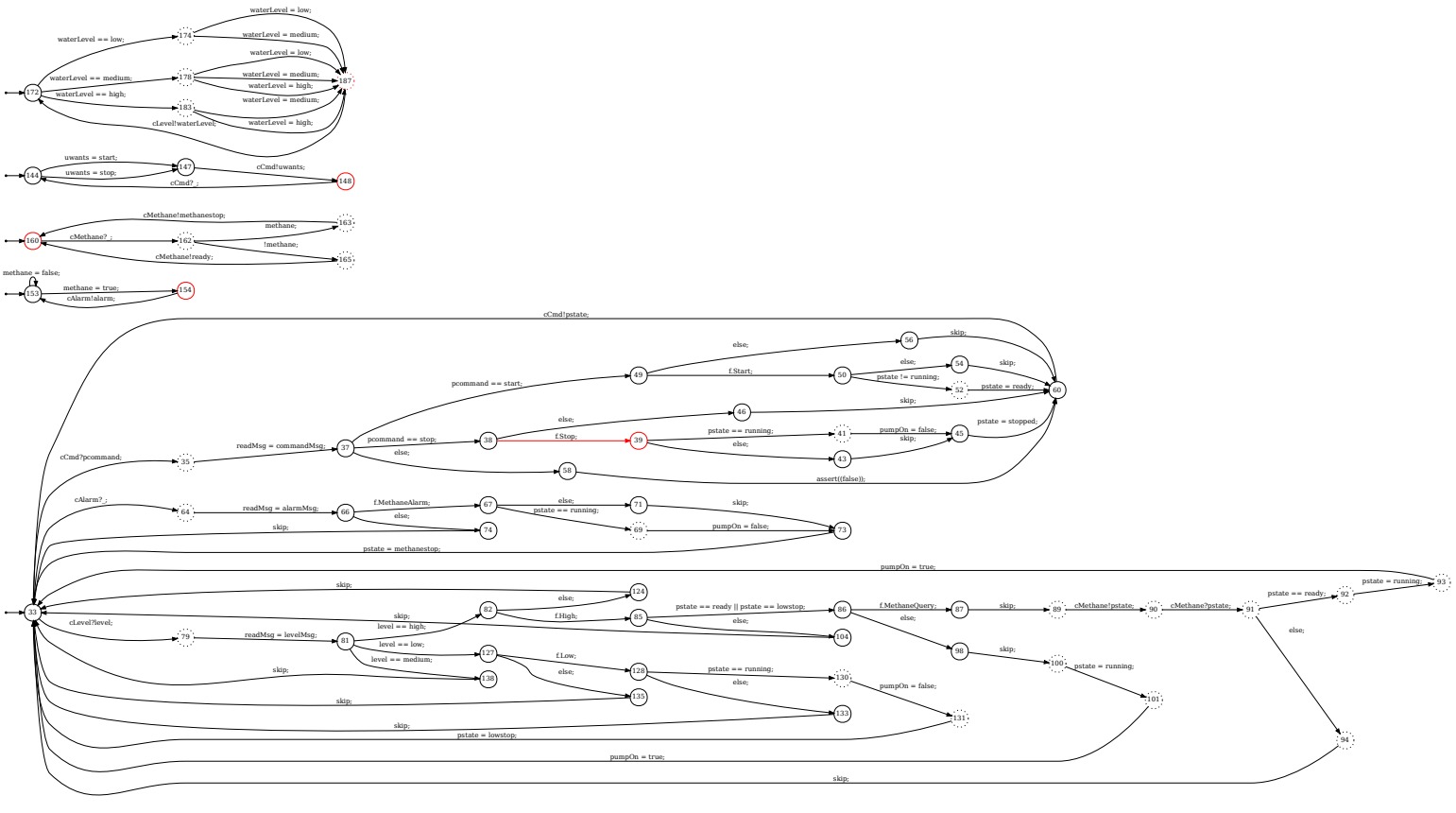
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
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waterLevel = high;
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methane = true;
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else;
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skip;
else;
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pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
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skip;
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else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
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level == medium;
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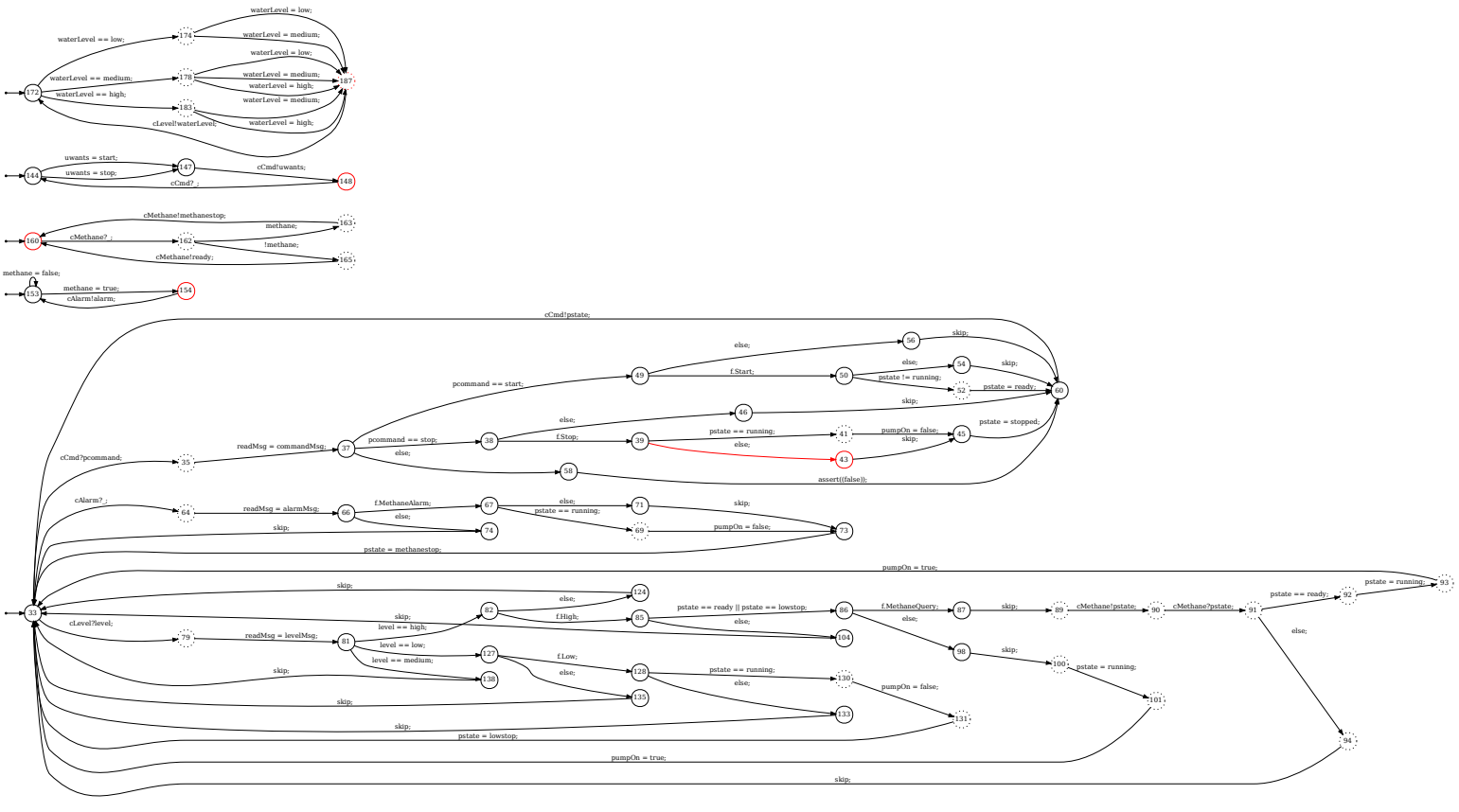
128
else;
130
pumpOn = false;
131
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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37
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43
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46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
79
81
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86
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91
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93
94
98
100
101
104
124
127
128
130
131
133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
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else;
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else;
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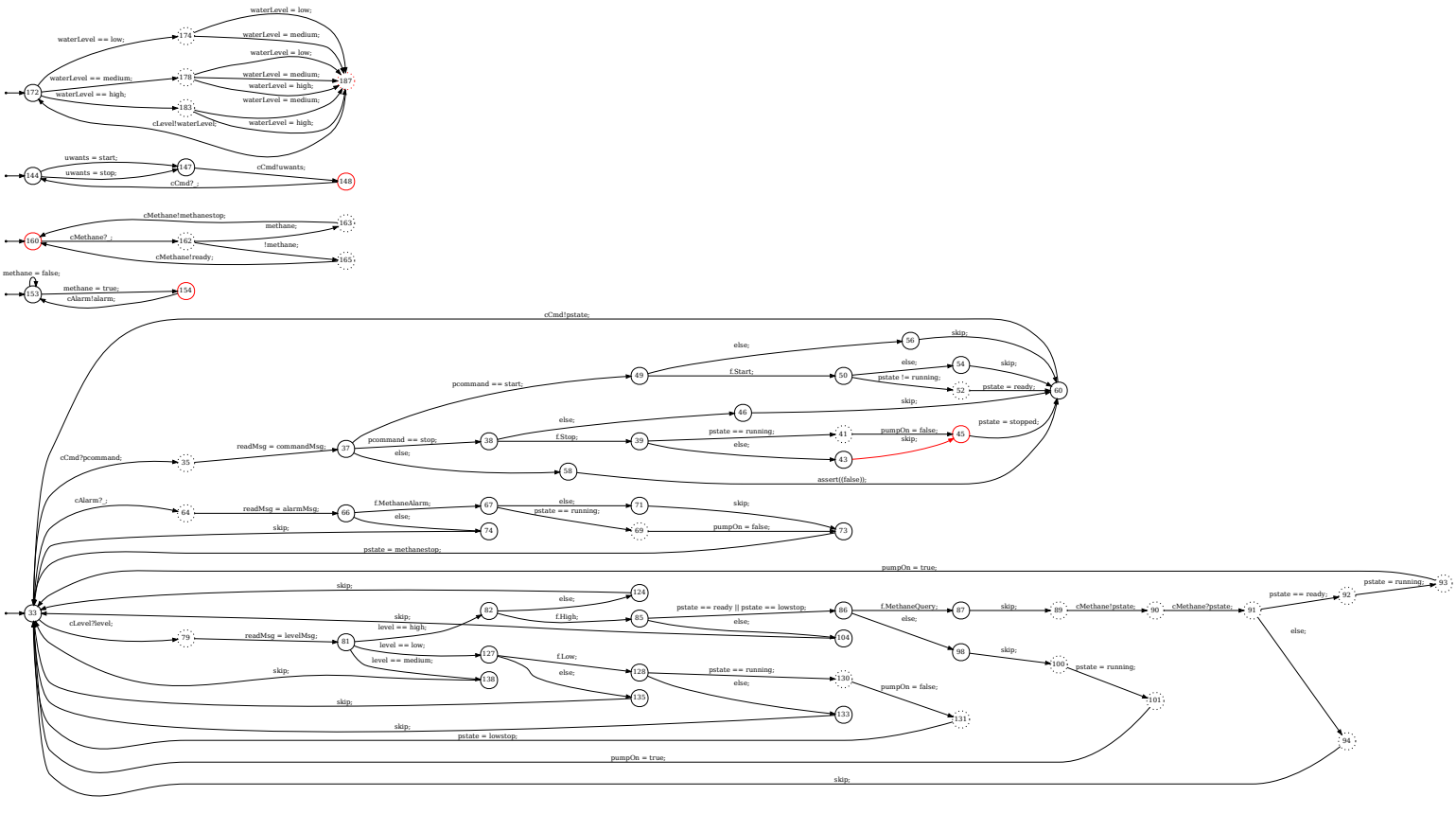
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
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waterLevel = medium;
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187
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52
pstate = ready;
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39
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45
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43
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58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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66
f.MethaneAlarm;
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73
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skip;
124
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82
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level == medium;
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135
133
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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cMethane!pstate;
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cMethane?pstate;
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skip;
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pstate = running;
101
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92
pstate = running;
93
94
skip;
pstate = lowstop;
pumpOn = true;
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else;
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pumpOn = false;
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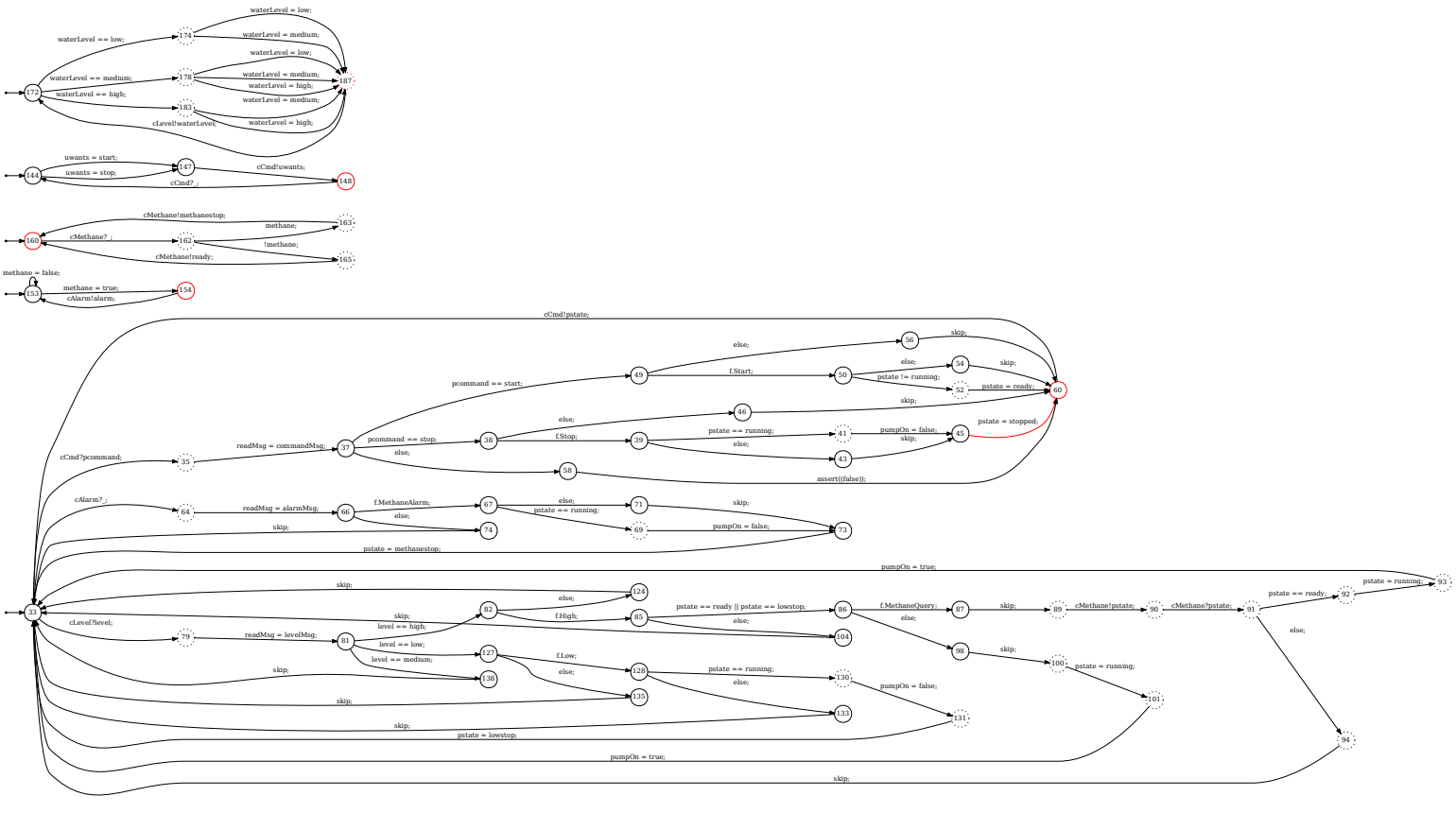
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
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147
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160
cMethane? ;
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methane;
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methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
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104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
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pstate == running;
else;
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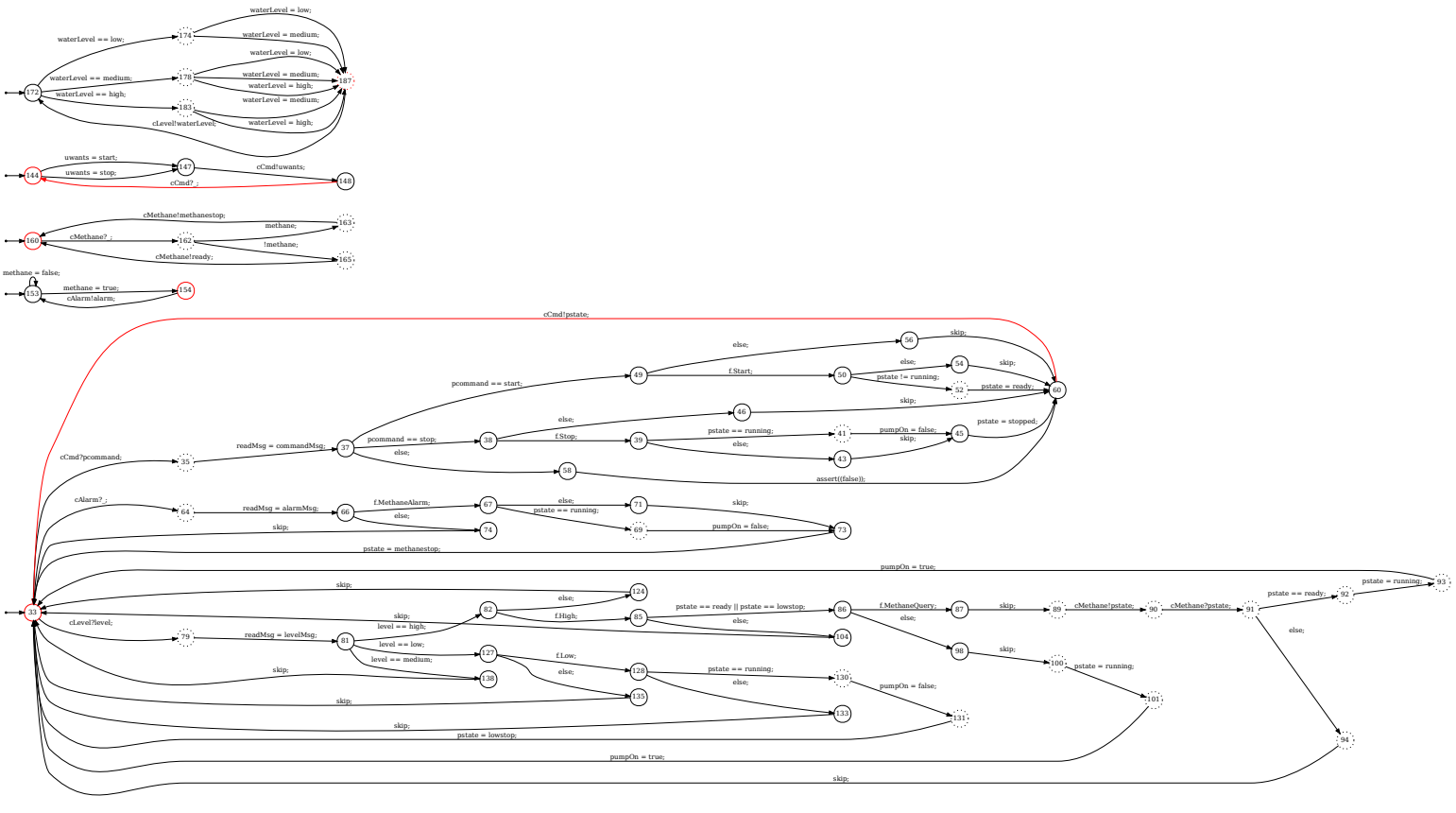
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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174
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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
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162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
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methane = false;
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154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
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49
f.Start;
50
pstate != running;
52
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60
pcommand == start;
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46
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38
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cCmd?pcommand;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
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pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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87
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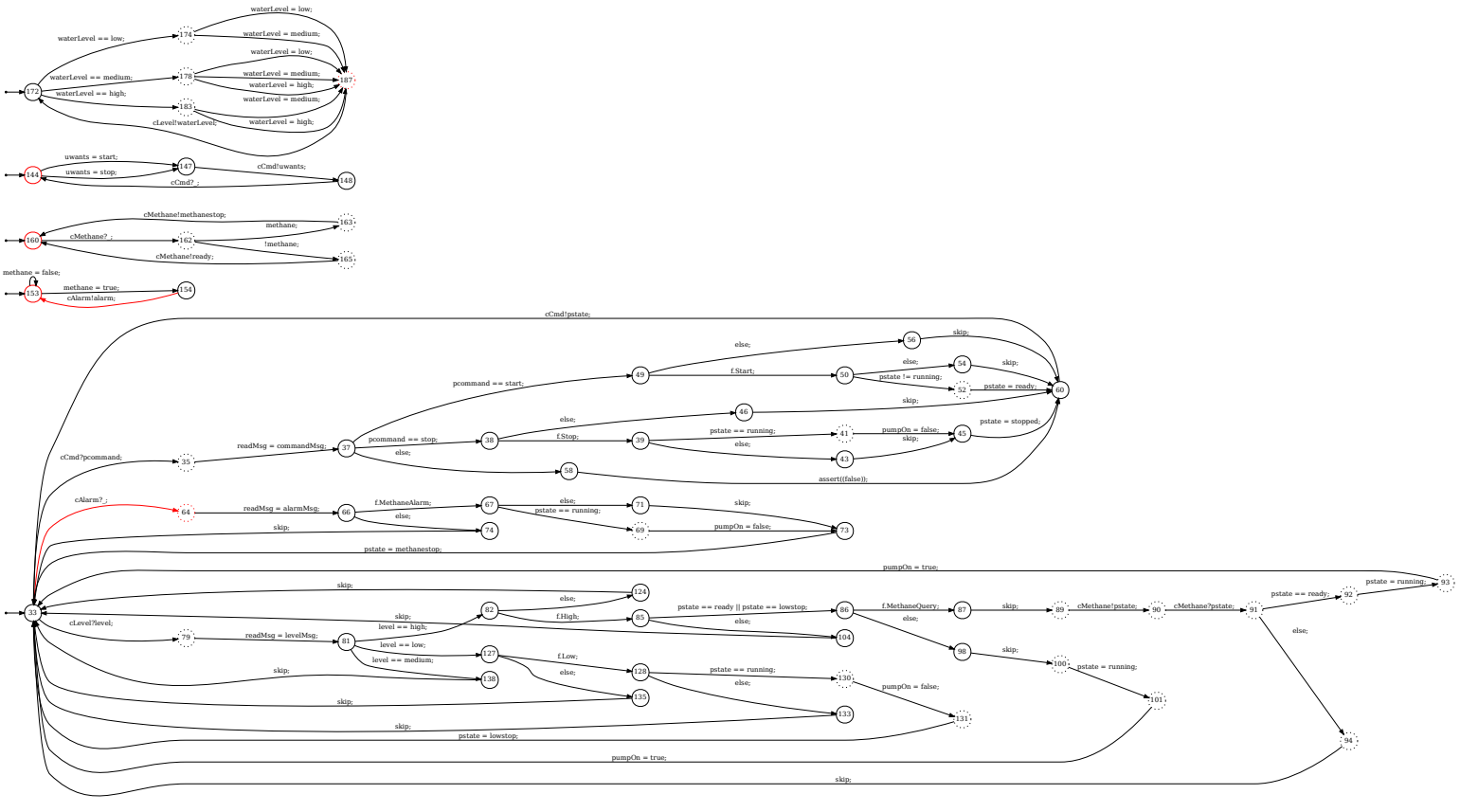
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waterLevel == low;
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pstate = ready;
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pcommand == start;
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f.Stop;
39
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37
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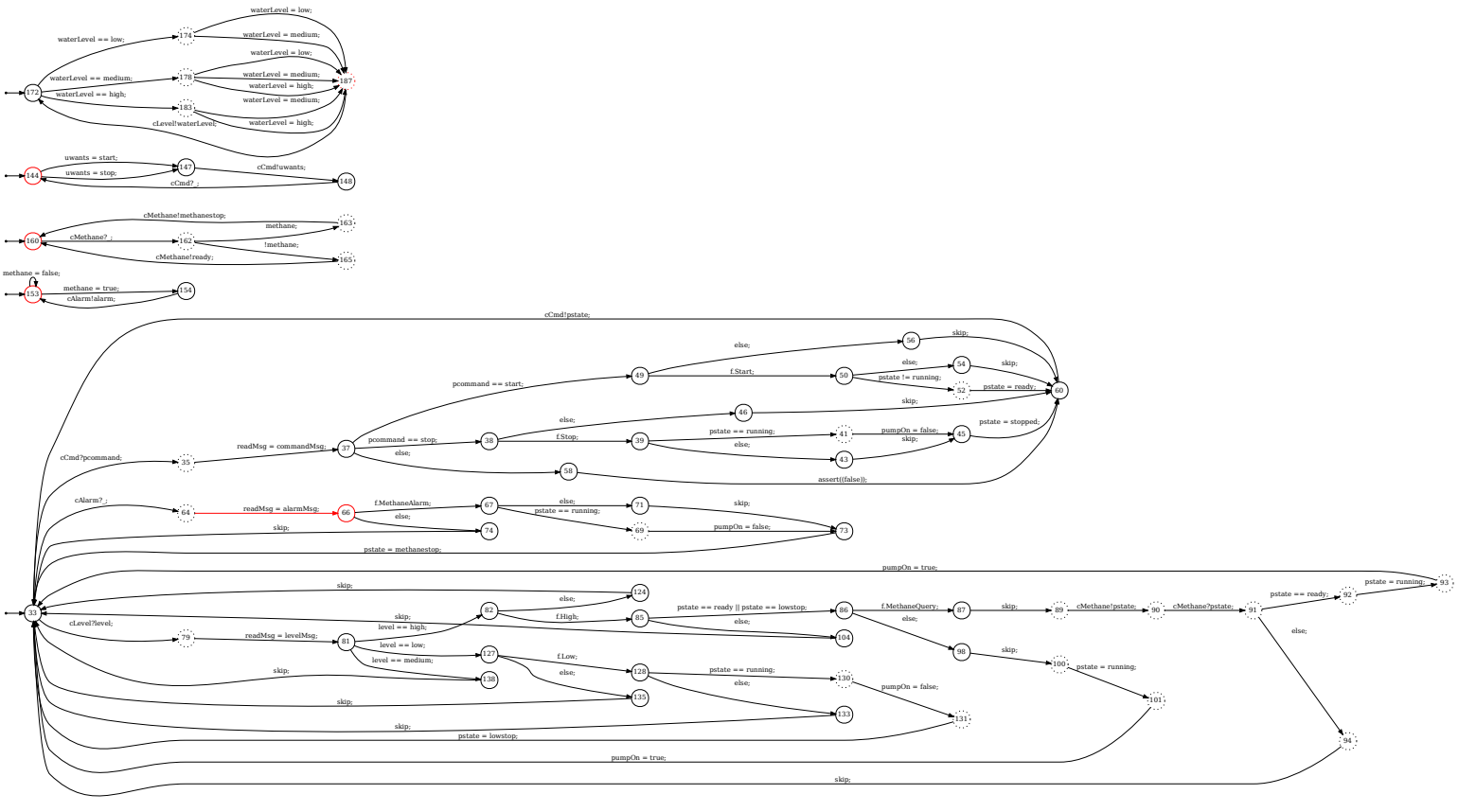
pumpOn = true;
skip;


172
waterLevel == low;
174
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
176
waterLevel = medium;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
pcommand == stop;
else;
37
readMsg = commandMsg;
35
cCmd?pcommand;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
98
skip;
100
pstate = running;
101
pstate == running;
else;
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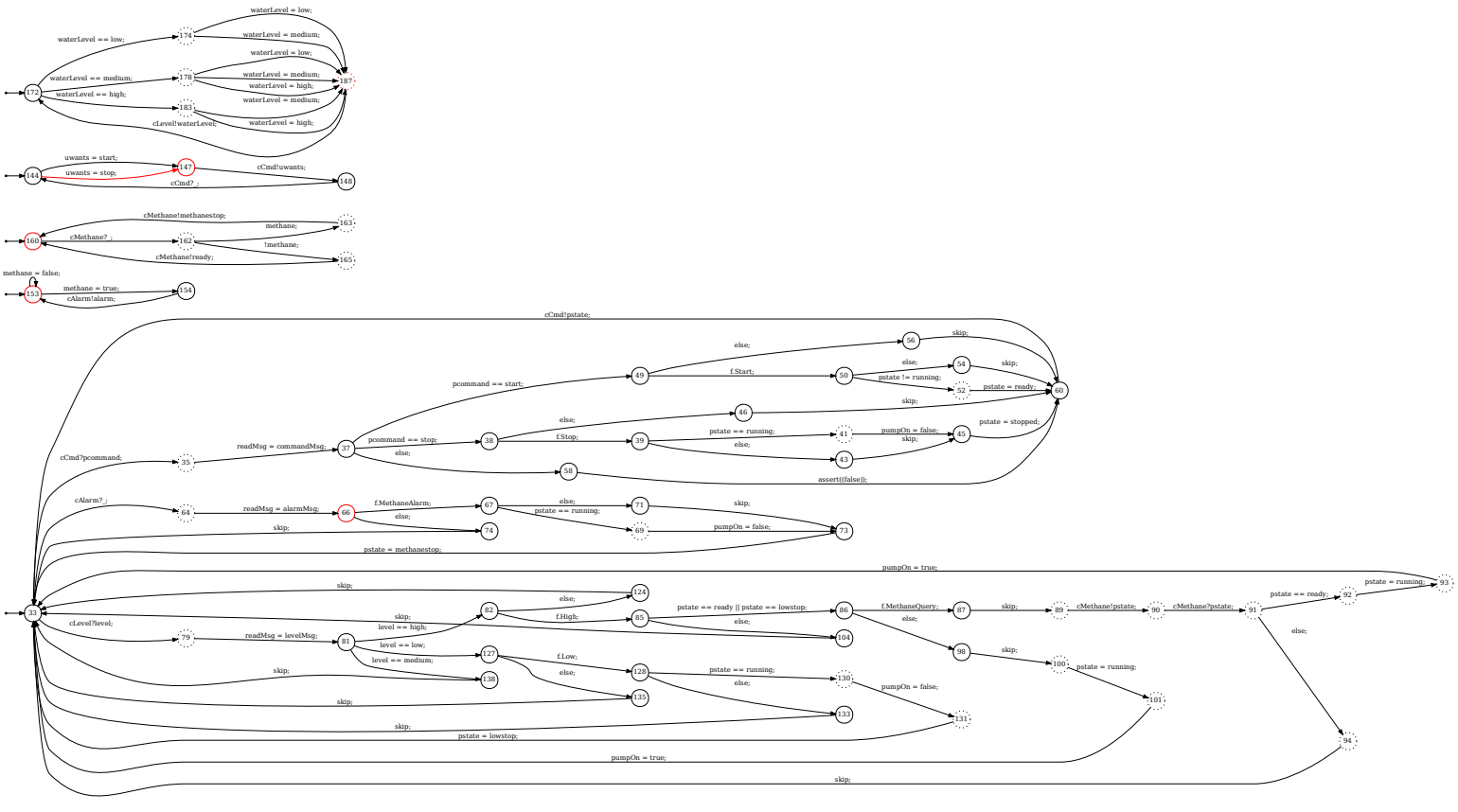
pumpOn = false;
133
131
94
pumpOn = true;
skip;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174
176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
52
pstate != running;
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
else;
38
39
43
f.Stop;
pstate == running;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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87
skip;
89
cMethane!pstate;
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cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
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131
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skip;
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pstate = running;
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skip;
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pstate = lowstop;
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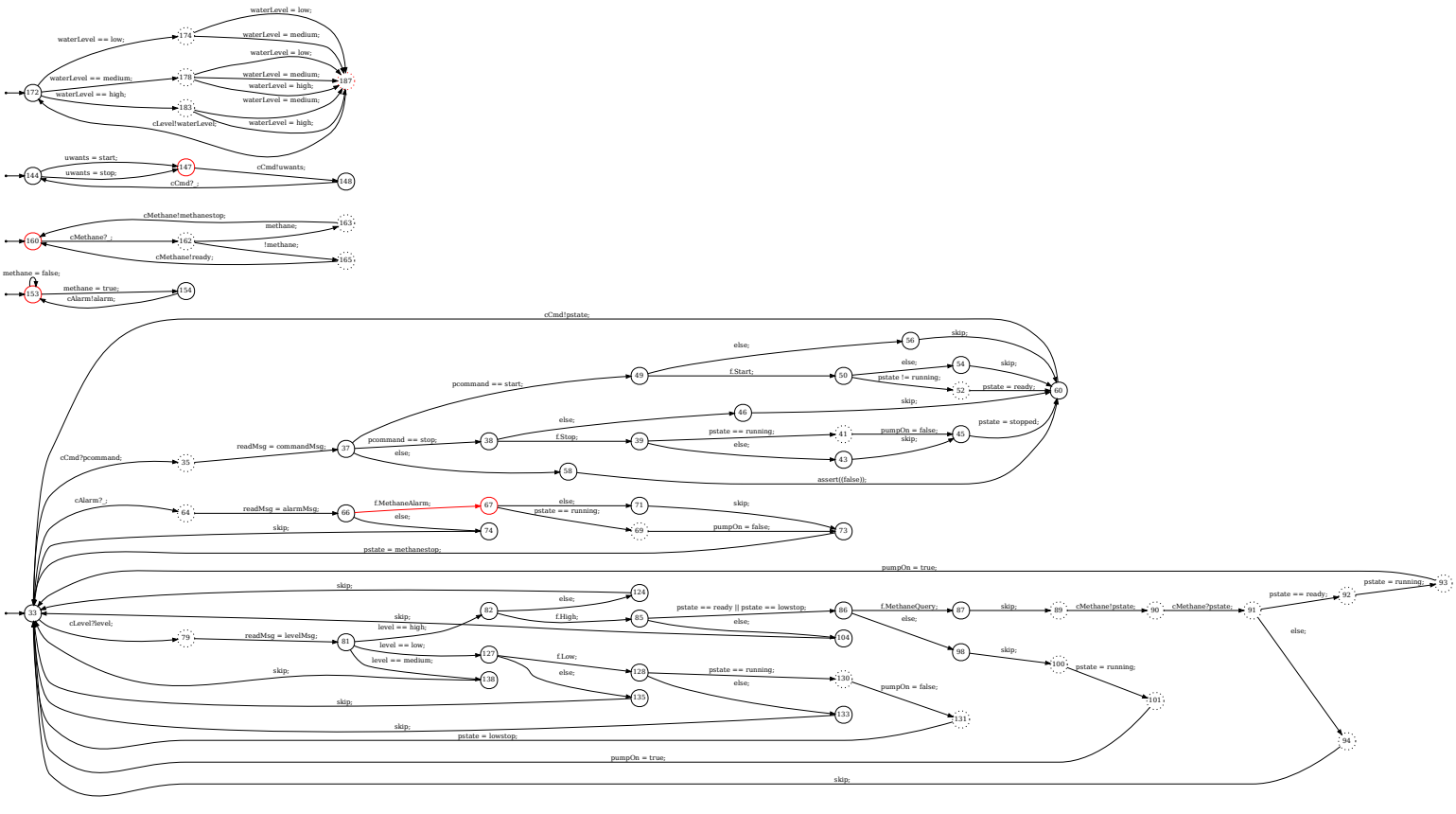
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
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cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
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f.Start;
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skip;
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pcommand == start;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
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39
f.Stop;
38
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
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f.MethaneAlarm;
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pstate == running;
skip;
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pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
skip;
level == high;
f.High;
85
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pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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89
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cMethane?pstate;
91
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pstate = running;
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level == medium;
127
f.Low;
else;
128
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pumpOn = false;
131
133
135
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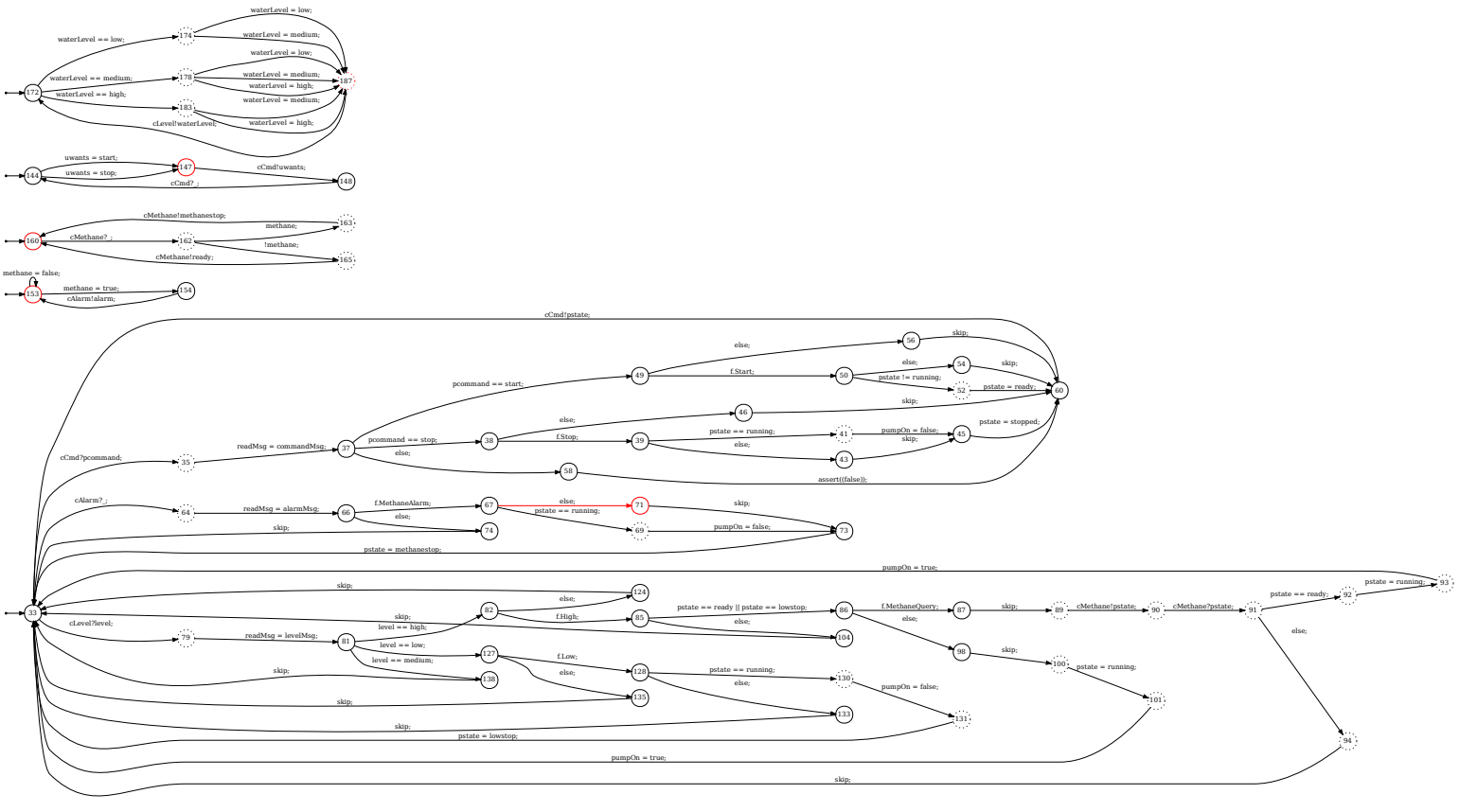
skip;
skip;
skip;
98
skip;
100
pstate = running;
101
94
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
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!methane;
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cMethane!ready;
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methane = true;
cAlarm!alarm;
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skip;
else;
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skip;
else;
49
f.Start;
50
pstate != running;
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pstate == running;
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pumpOn = false;
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pstate = stopped;
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skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
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f.MethaneQuery;
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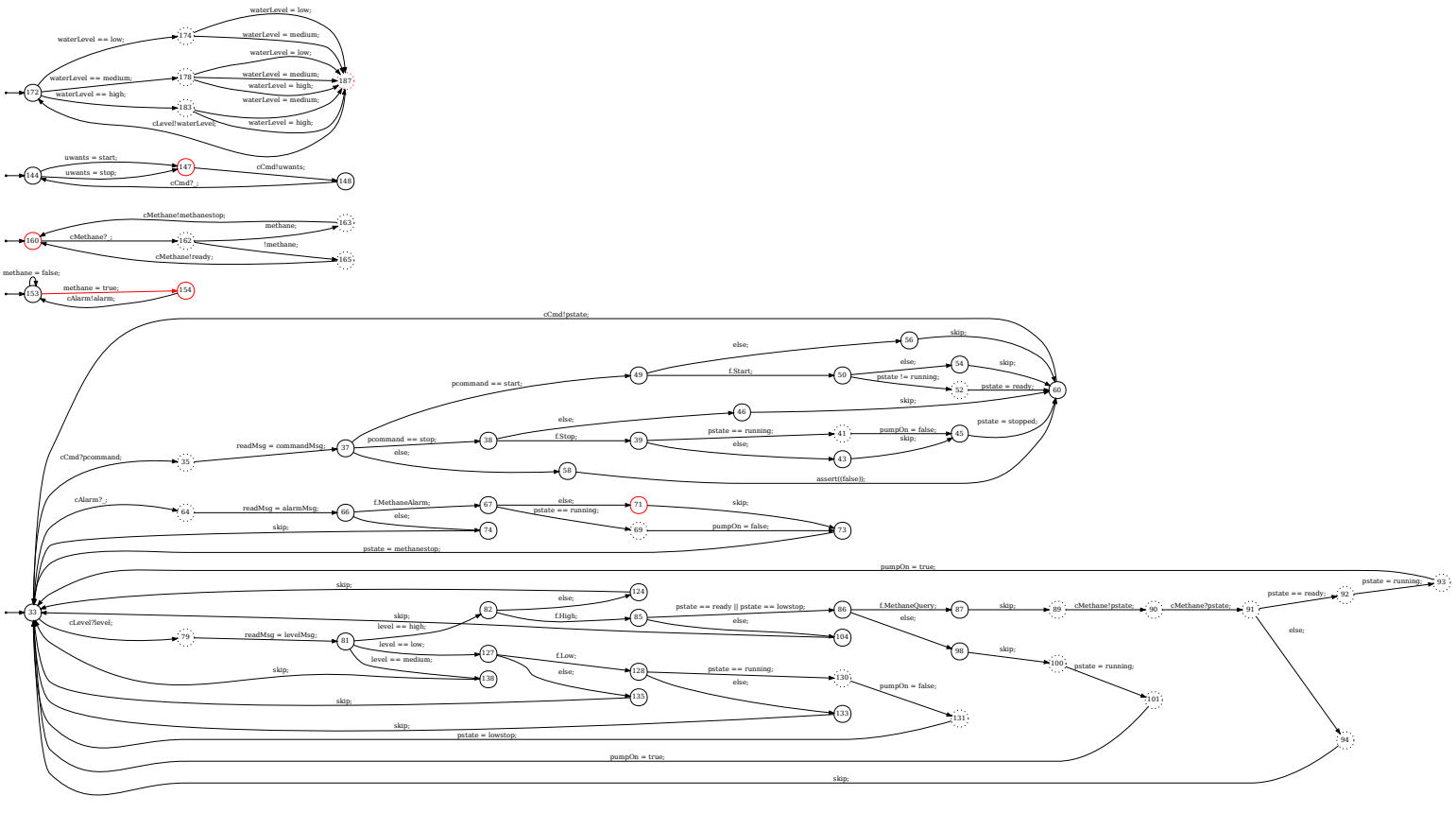
else;
98
skip;
100
pstate = running;
101
131
133
pumpOn = false;
pumpOn = true;
skip;
89
skip;
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
94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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
38
f.Stop;
39
else;
skip;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
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assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
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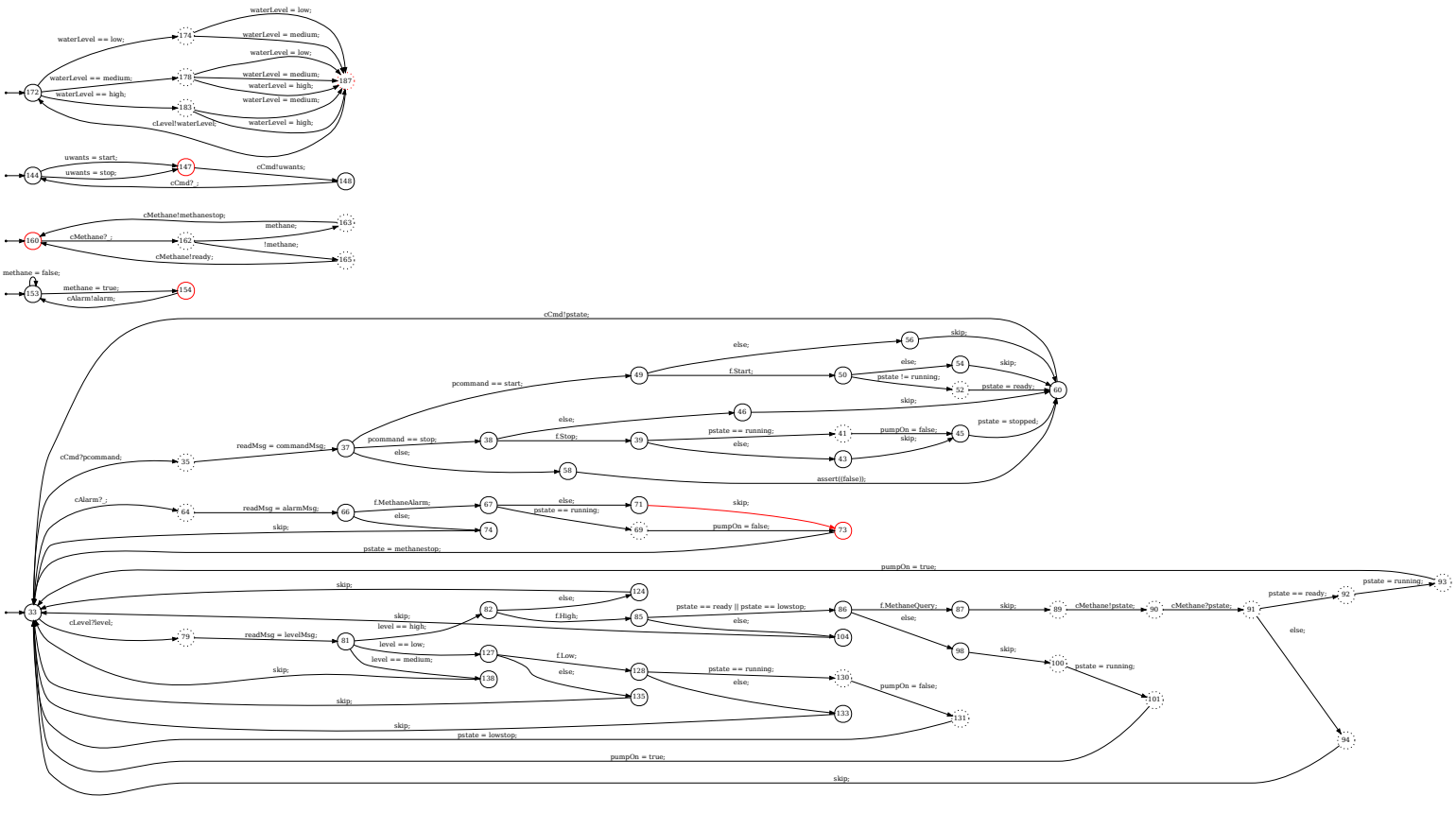
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
else;
135
133
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
130
else;
pumpOn = false;
131
skip;
pstate = lowstop;
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
79
81
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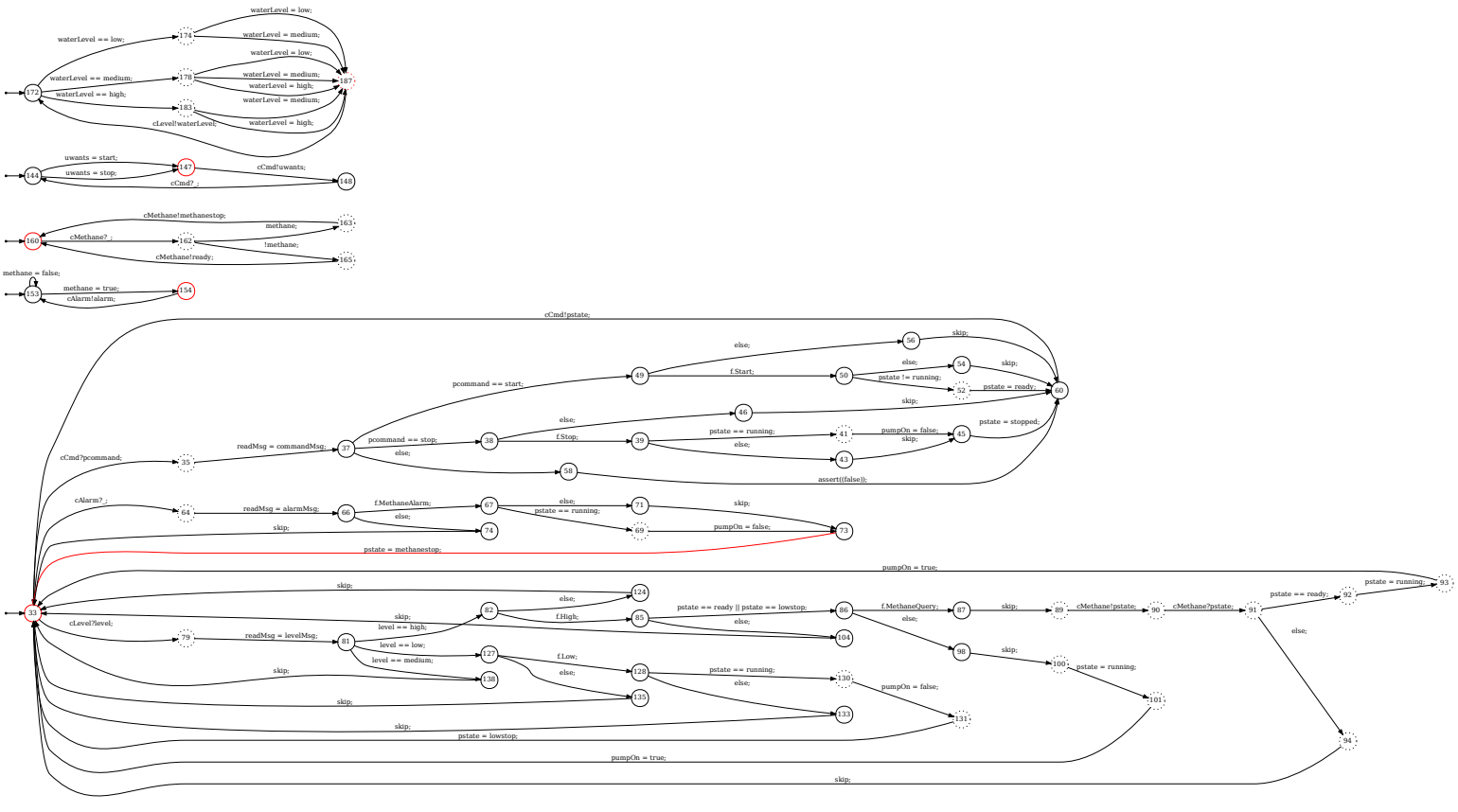
87
89
90
91
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;


waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
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pstate = running;
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else;
f.High;
85
else;
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cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
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else;
pumpOn = false;
101
skip;
135
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131
skip;
pstate = lowstop;
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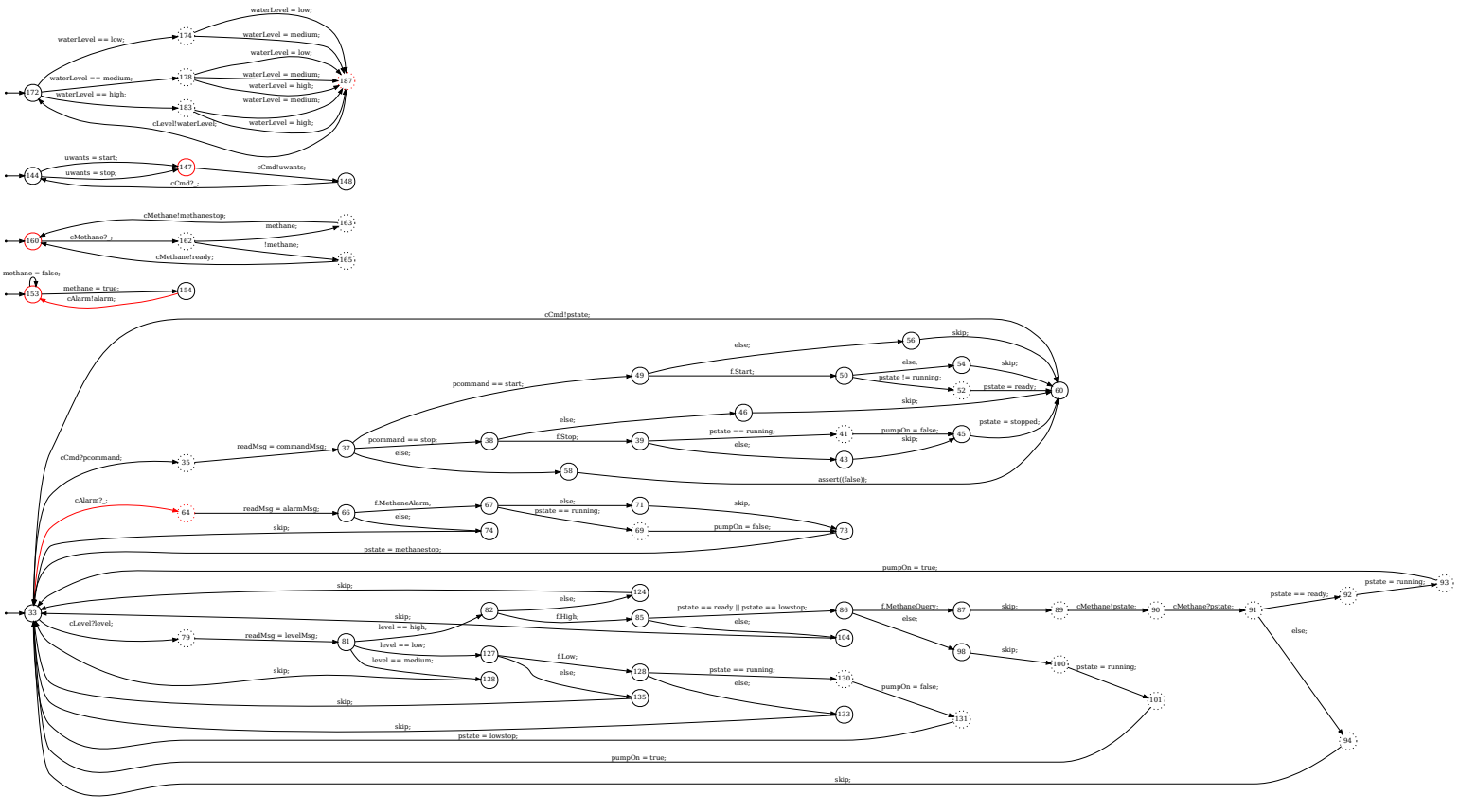
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
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cMethane!methanestop;
cMethane? ;
methane;
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methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
f.Start;
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
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45
pstate = stopped;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
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level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
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98
skip;
100
pstate = running;
101
pstate == running;
130
else;
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skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == ready;
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pstate = running;
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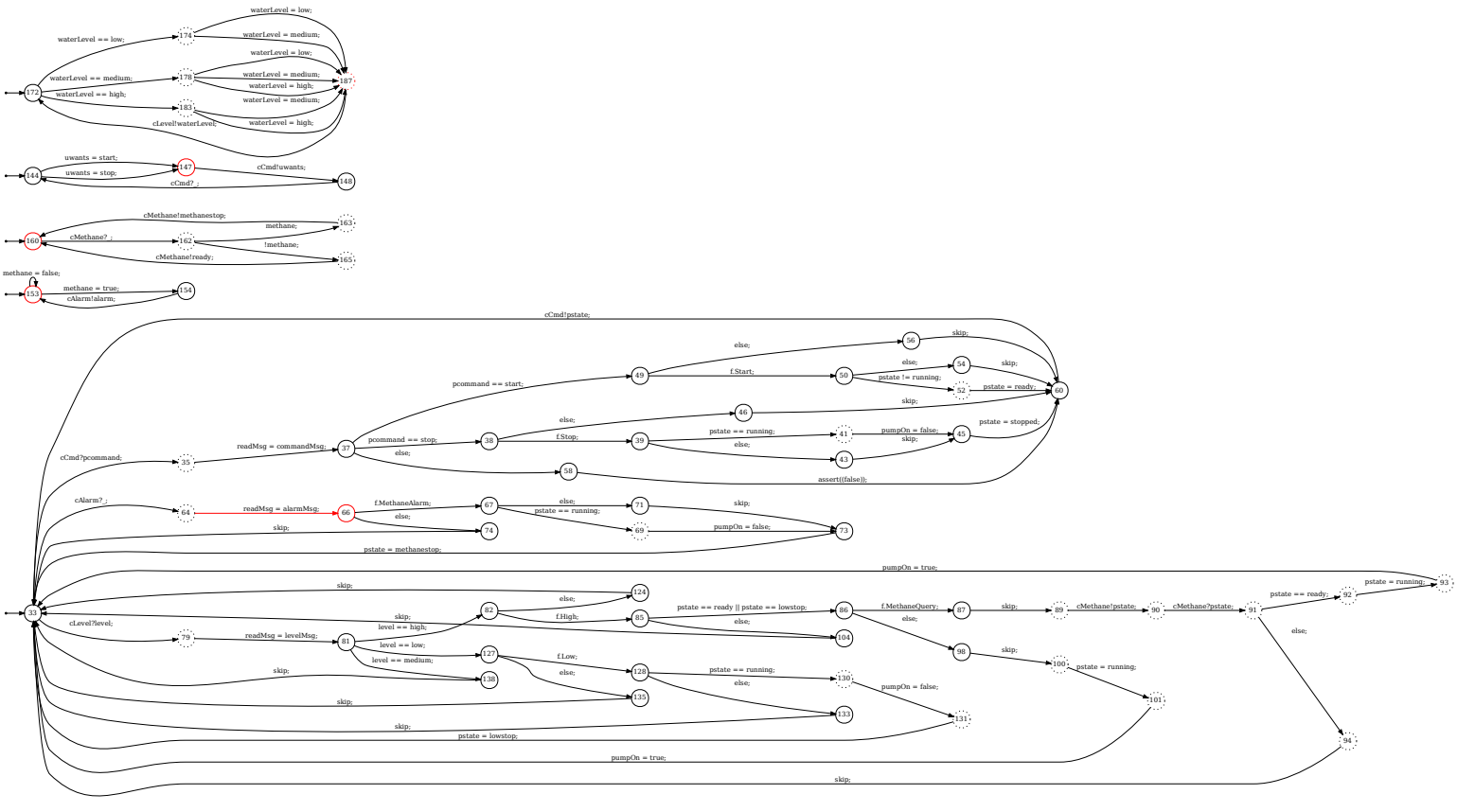
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
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41
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pstate = stopped;
pumpOn = false;
skip;
f.Stop;
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pstate == running;
else;
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38
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37
pcommand == stop;
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64
readMsg = alarmMsg;
66
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79
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81
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level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
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130
pumpOn = false;
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131
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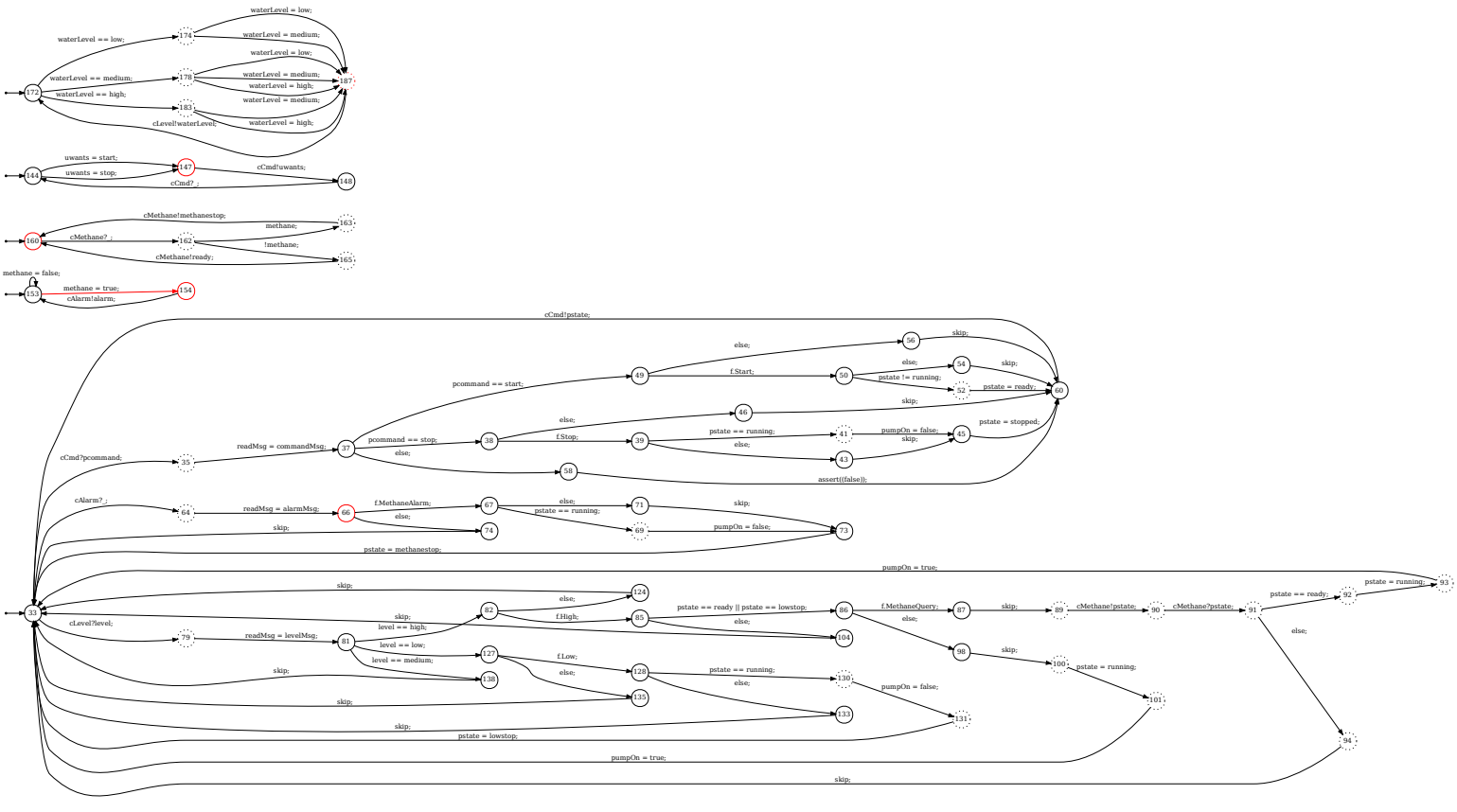
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waterLevel == low;
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waterLevel = low;
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165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
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56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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101
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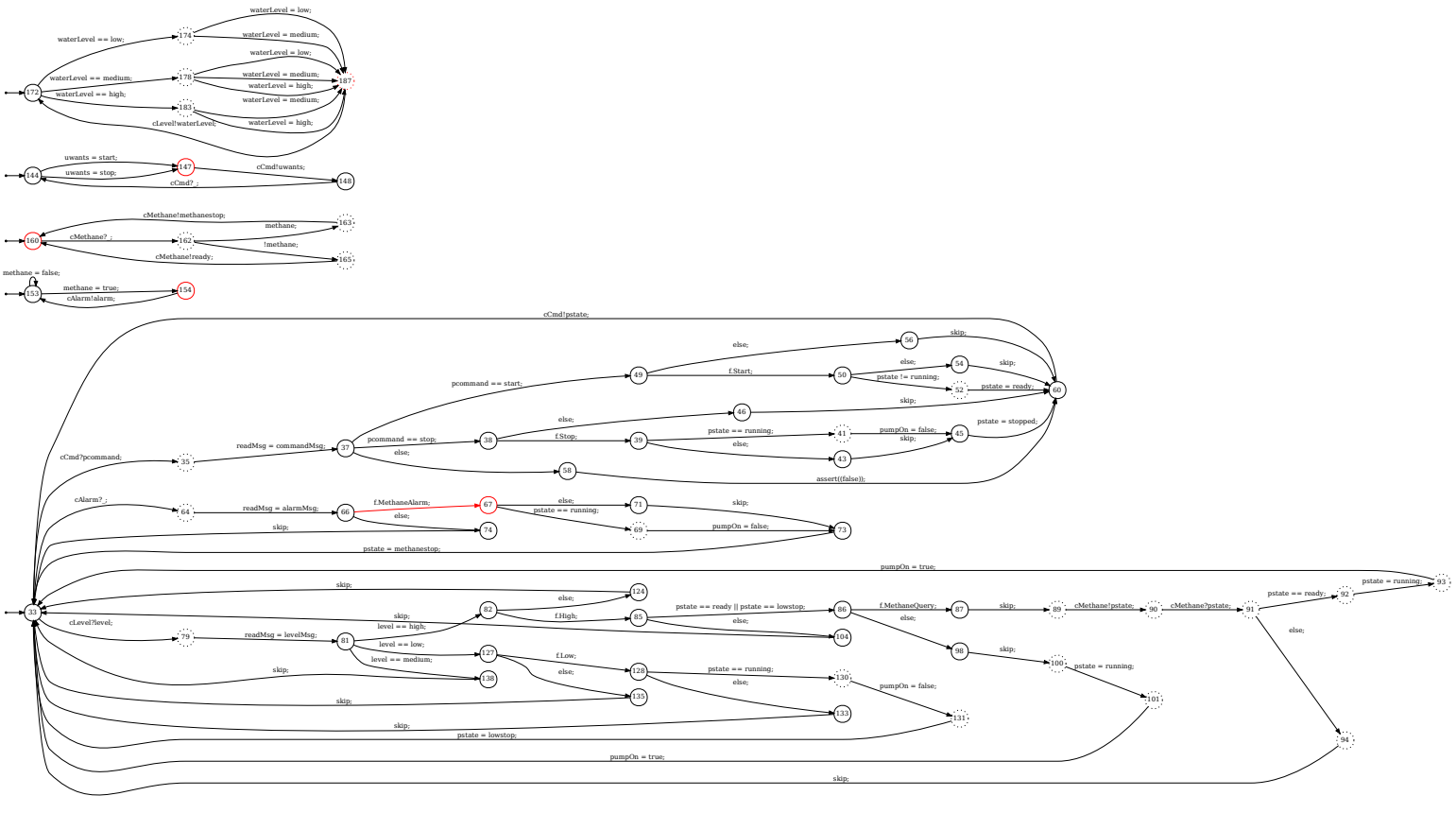
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate = lowstop;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
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pstate = running;
101
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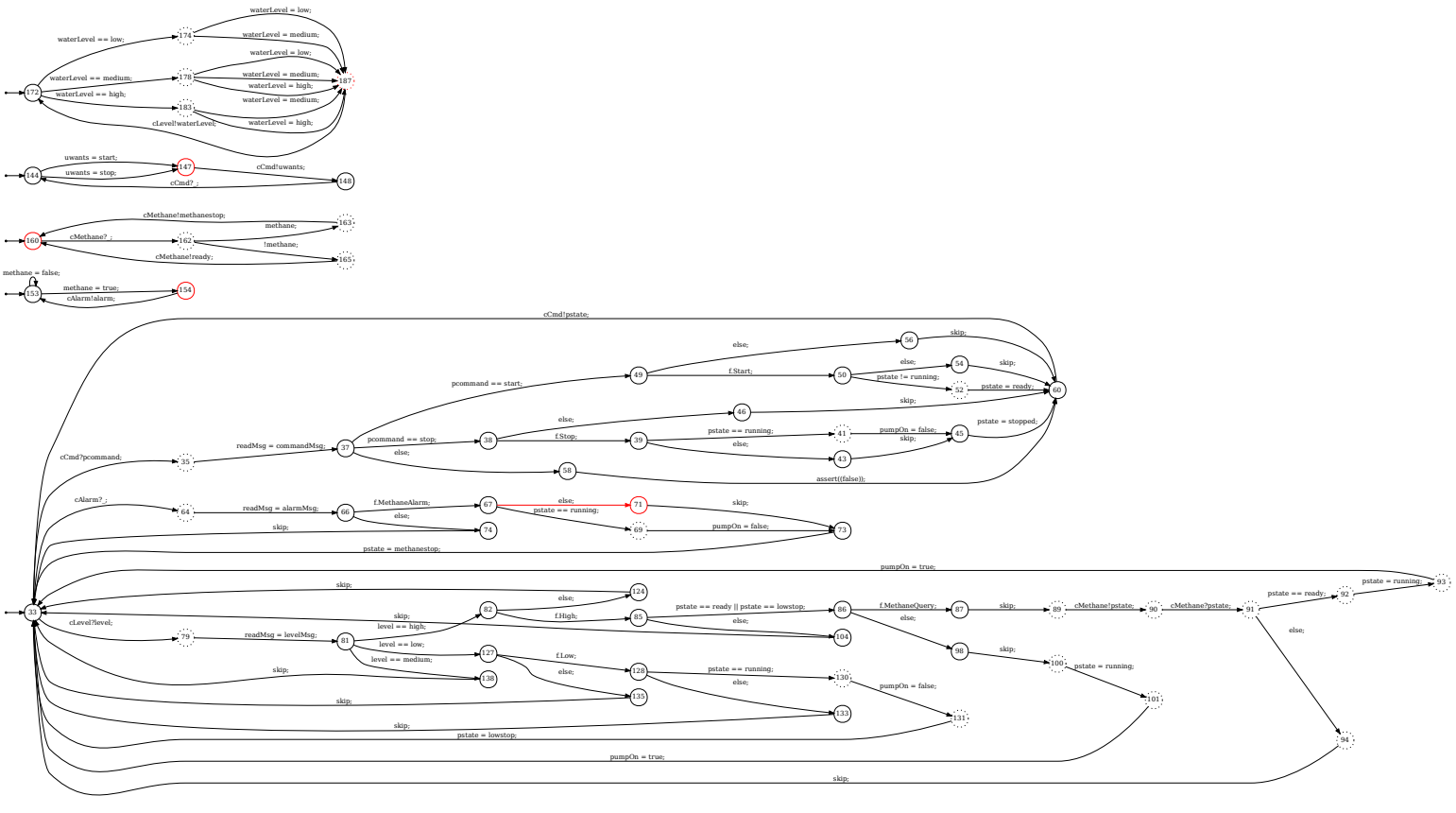
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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124
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128
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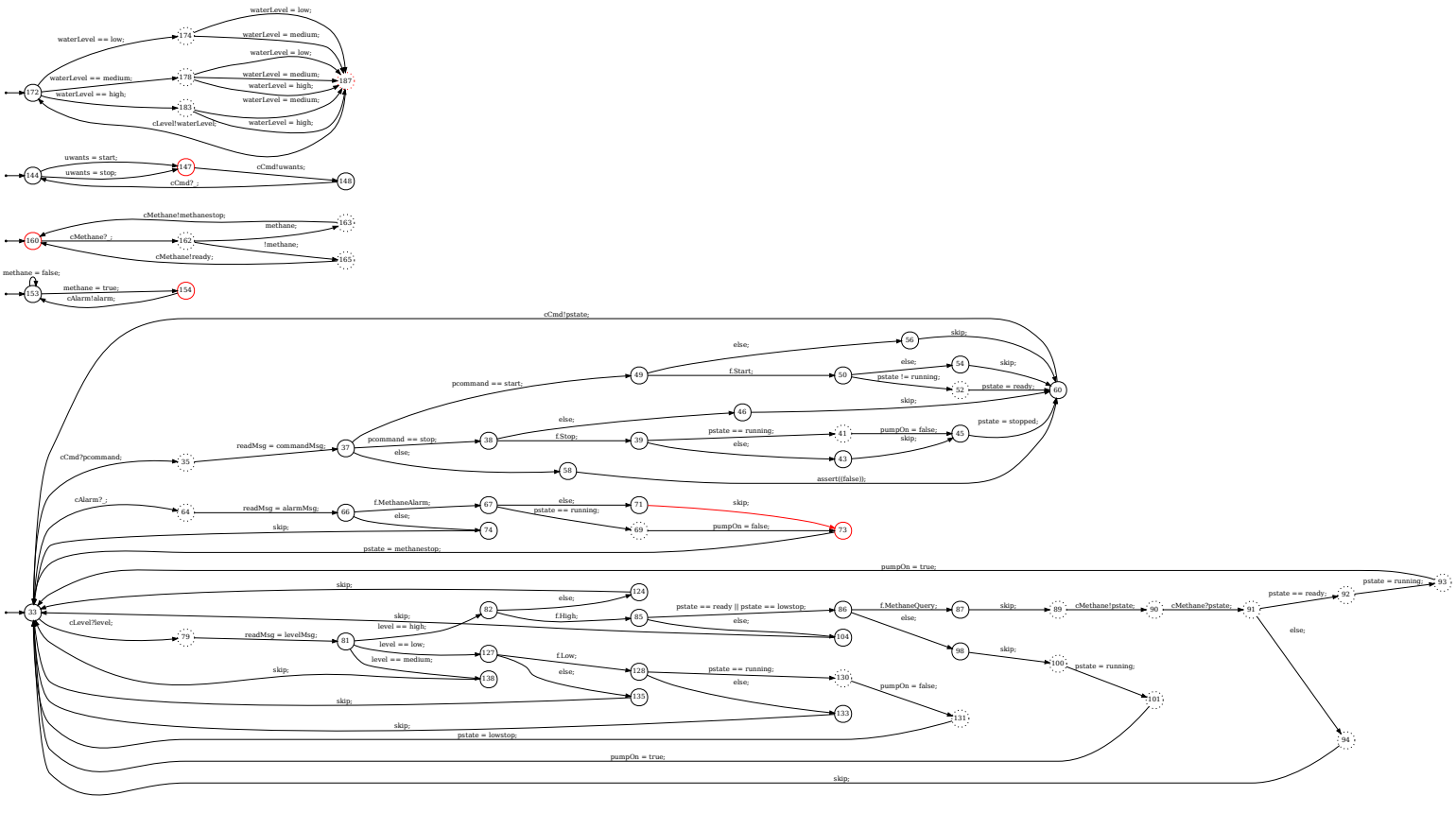
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
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58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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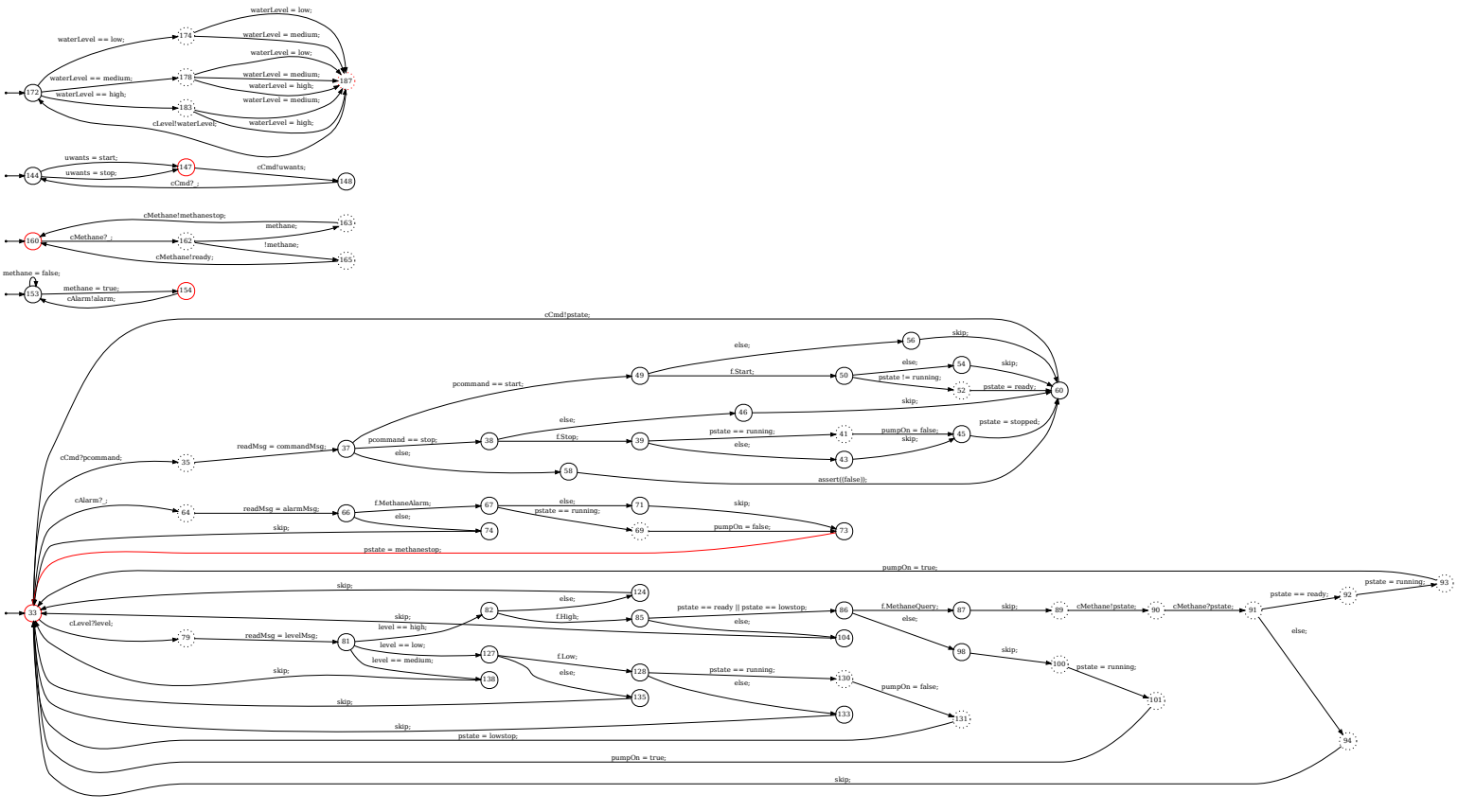
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel = medium;
waterLevel = low;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
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else;
pumpOn = false;
101
skip;
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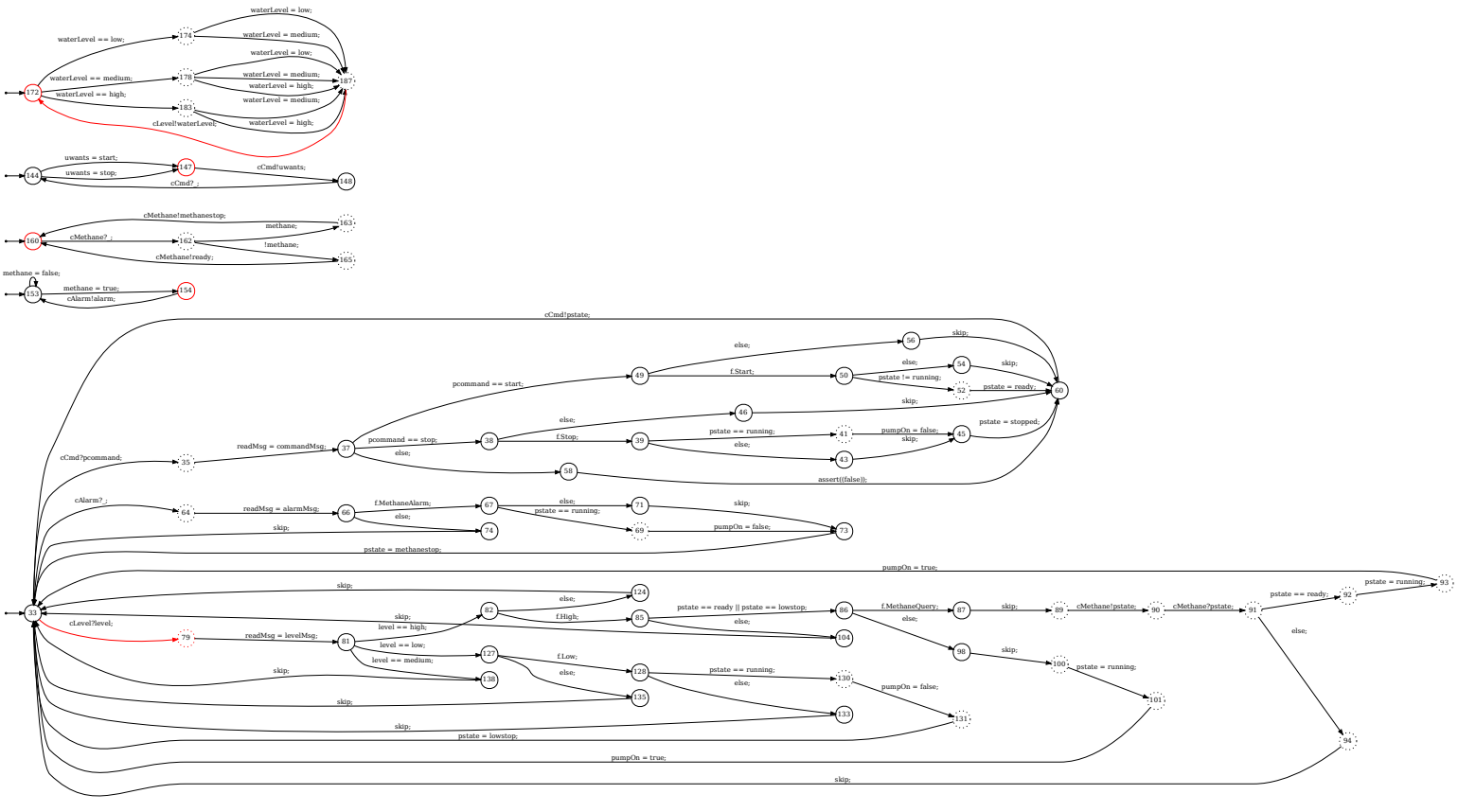
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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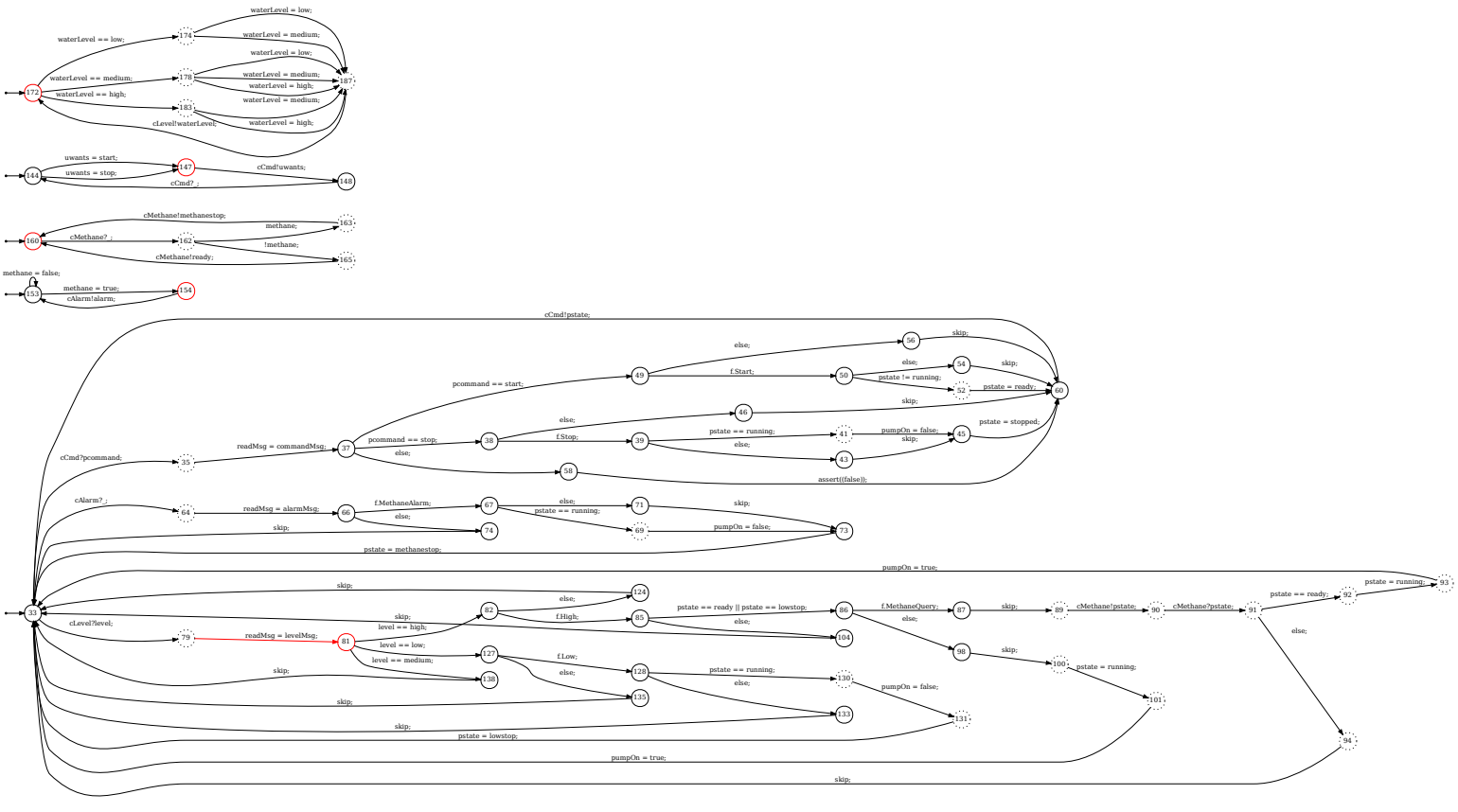
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
pumpOn = false;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
130
else;
pstate == running;
pumpOn = false;
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131
pumpOn = true;
skip;
pstate == ready;
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pstate = running;
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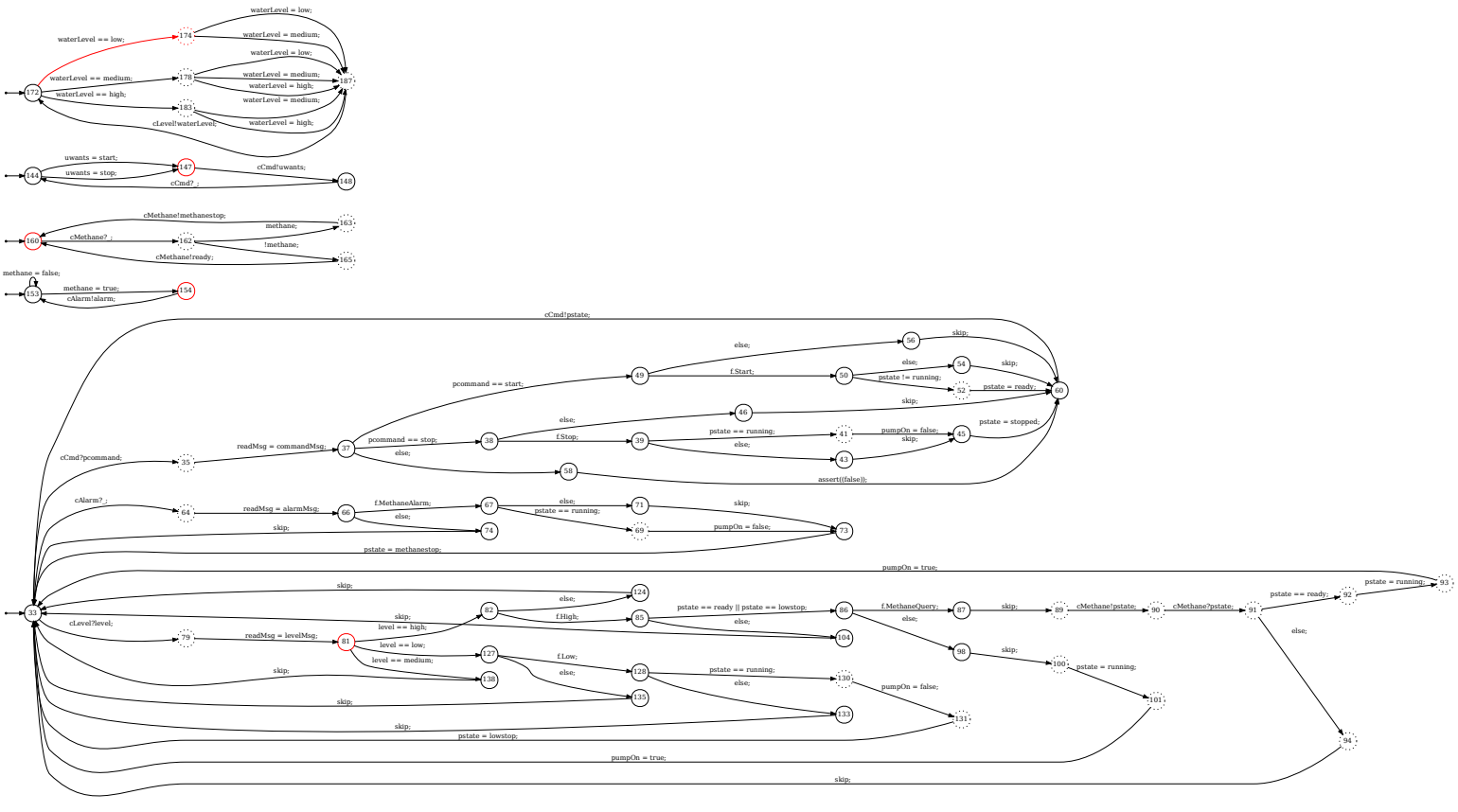
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waterLevel == low;
waterLevel == medium;
waterLevel == high;
waterLevel = low;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
cMethane!ready;
methane;
!methane;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
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41
43
45
46
49
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52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
pcommand == stop;
else;
f.Start;
f.Stop;
pstate != running;
pstate == running;
pstate = ready;
pstate = stopped;
pumpOn = false;
skip;
assert((false));
64
66
67
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71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate = methanestop;
pumpOn = true;
33
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89
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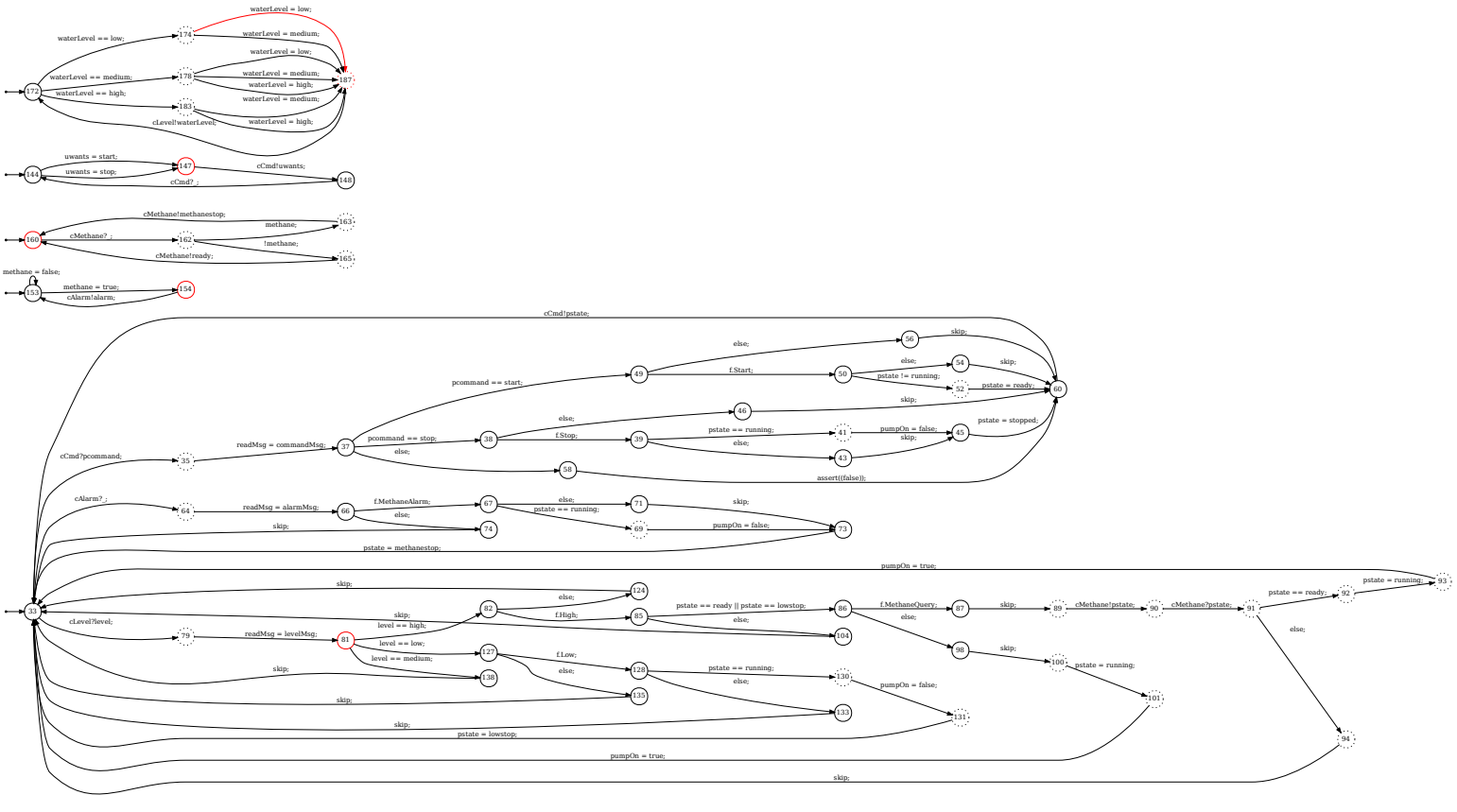
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate == ready;
pstate = lowstop;


waterLevel = low;
waterLevel == low;
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waterLevel = medium;
waterLevel = low;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
160
163
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
else;
skip;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
else;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
else;
104
else;
cLevel?level;
79
readMsg = levelMsg;
skip;
level == high;
81
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
else;
98
skip;
100
pstate = running;
101
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skip;
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pumpOn = false;
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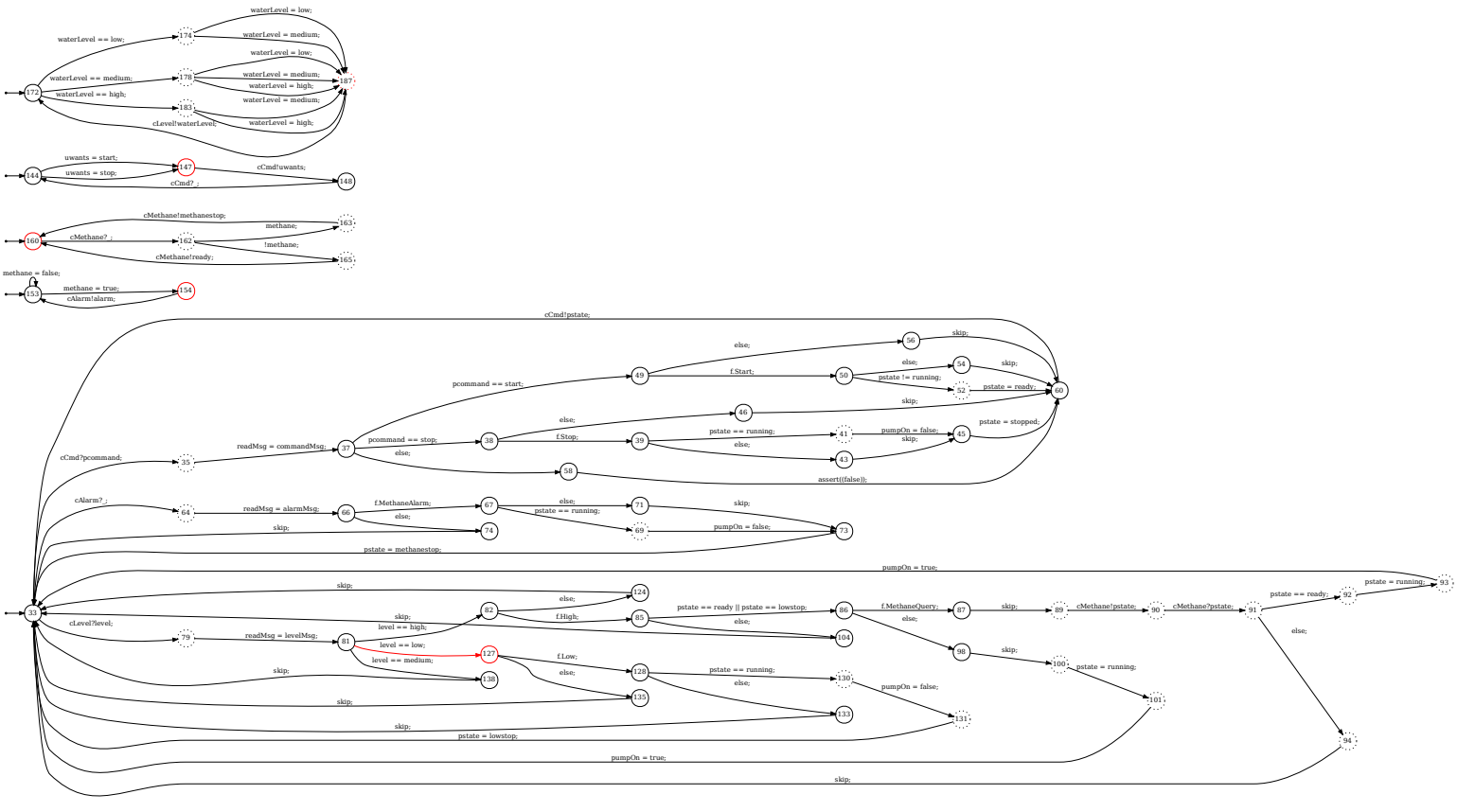
skip;
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = medium;
waterLevel = low;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
cMethane!methanestop;
methane;
cMethane? ;
!methane;
cMethane!ready;
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
skip;
pcommand == start;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
else;
pstate = stopped;
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
skip;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
else;
skip;
pstate = running;
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else;
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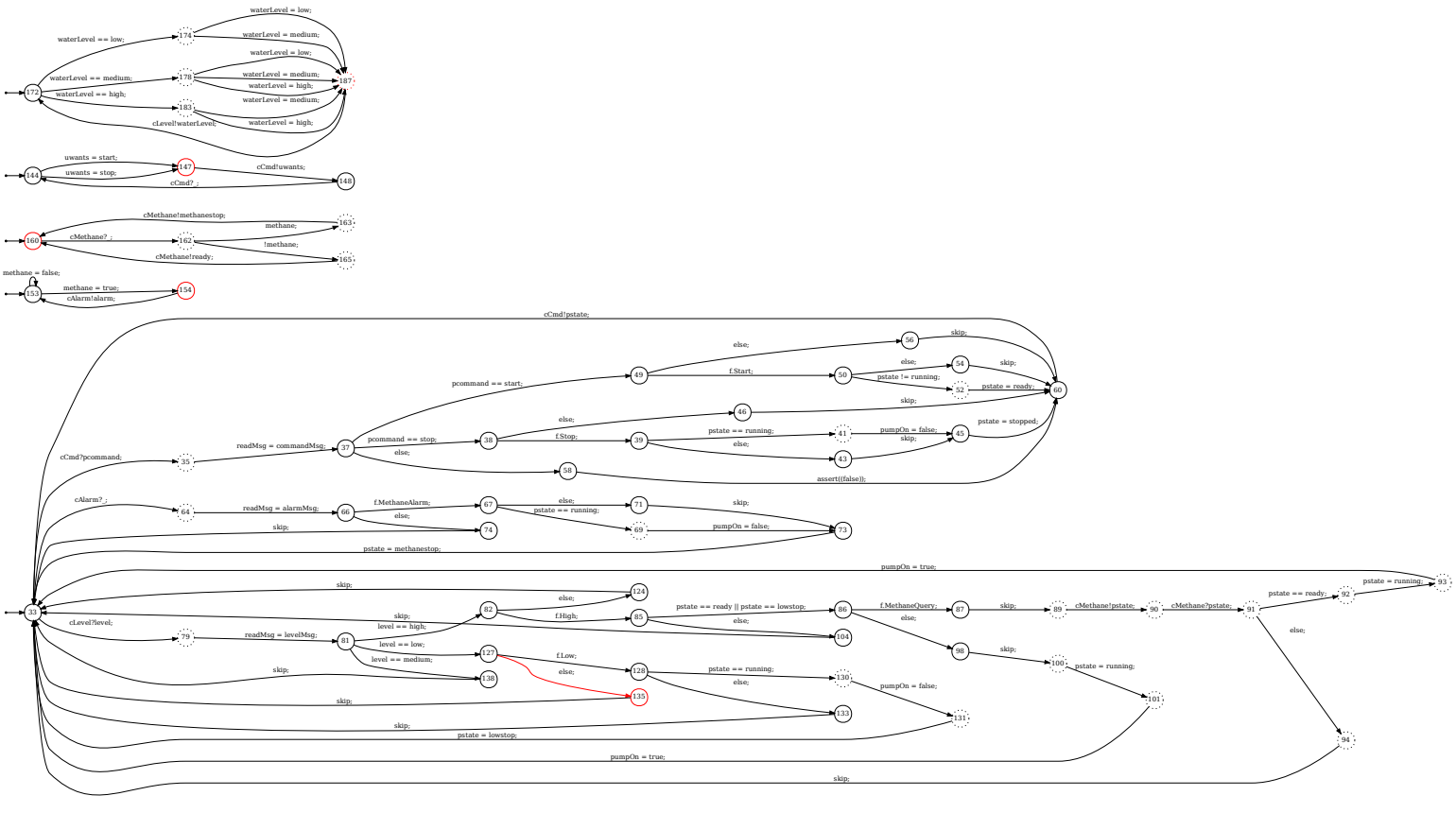
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
38
39
else;
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
138
128
pstate == running;
else;
130
pumpOn = false;
131
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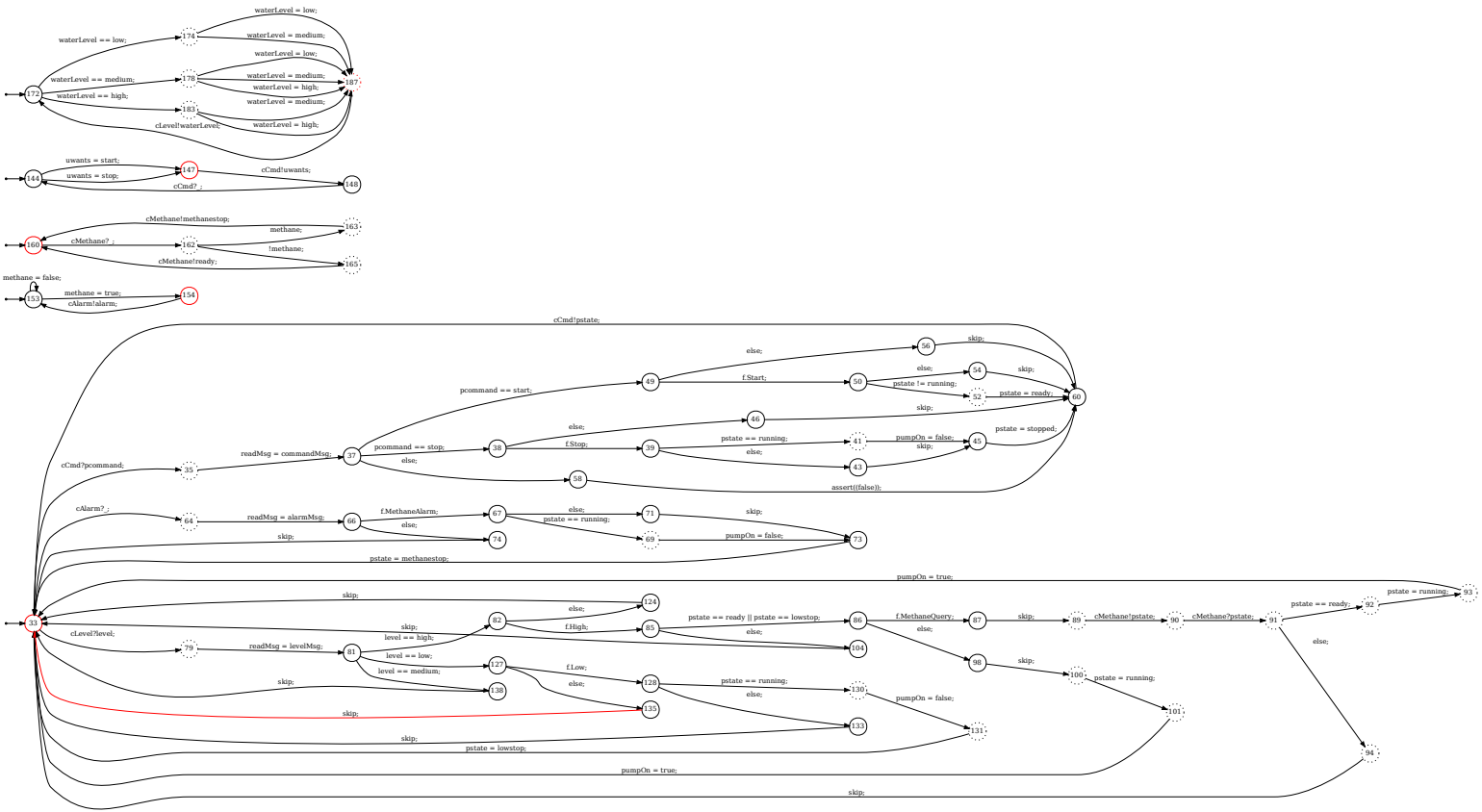
skip;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waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
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else;
skip;
49
f.Start;
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pstate != running;
52
pstate = ready;
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pcommand == start;
46
skip;
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41
pstate == running;
pumpOn = false;
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pstate = stopped;
skip;
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f.Stop;
39
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cCmd?pcommand;
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assert((false));
cAlarm? ;
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86
f.MethaneQuery;
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91
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else;
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skip;
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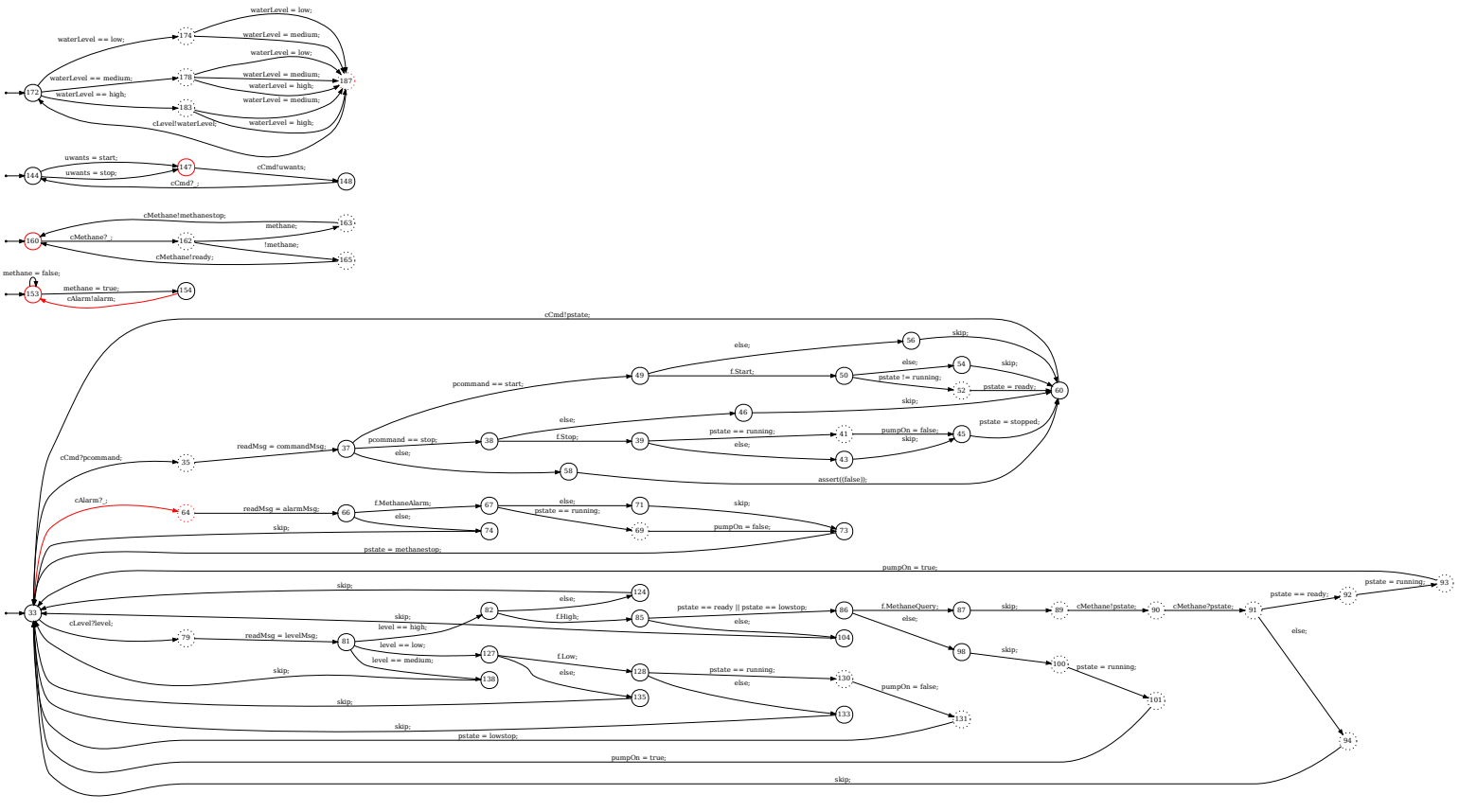
skip;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163
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cMethane? ;
methane;
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cMethane!ready;
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154
methane = true;
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pstate != running;
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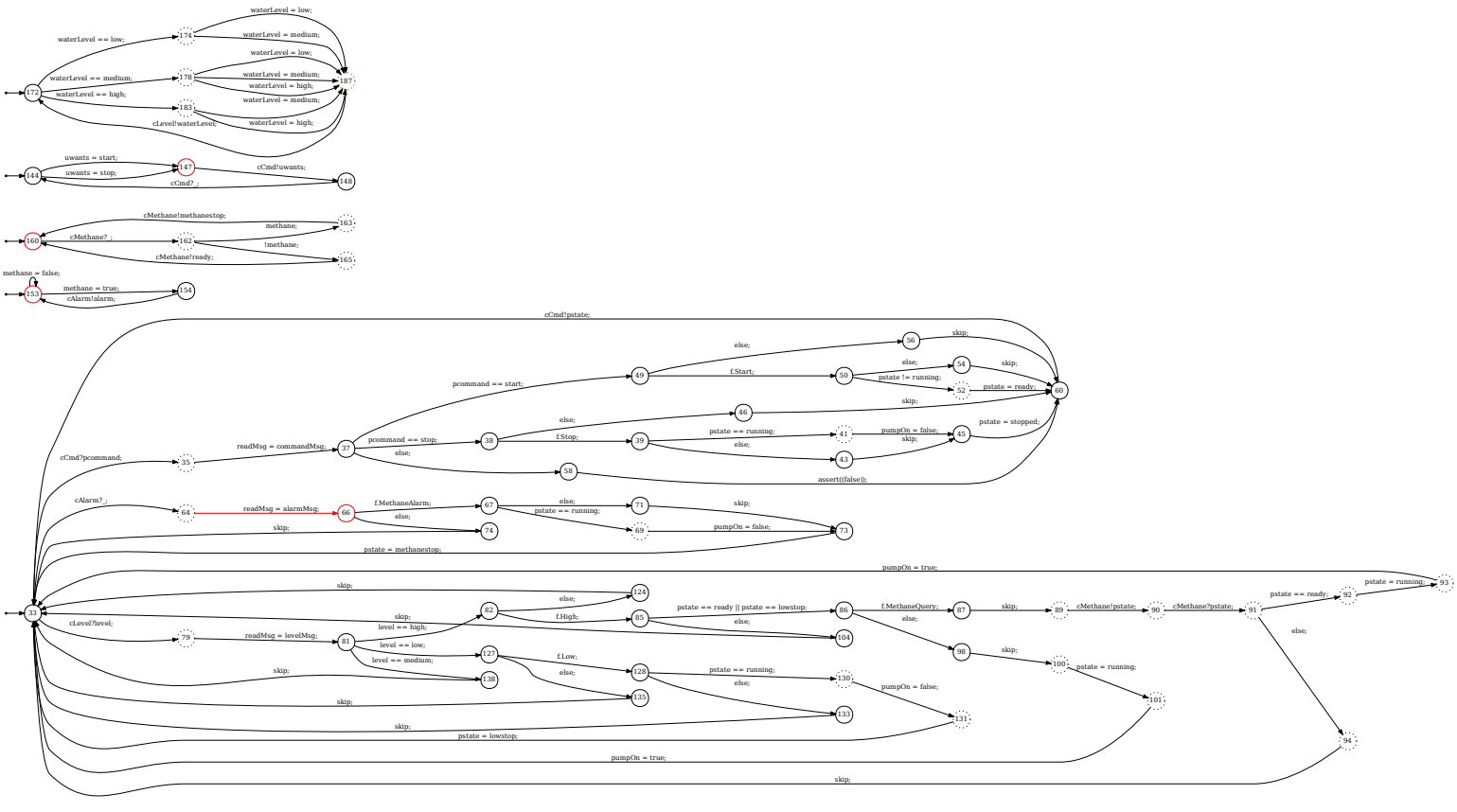
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waterLevel = high;
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!methane;
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154
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cCmd!pstate;
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skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
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skip;
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pumpOn = false;
skip;
f.Stop;
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pstate == running;
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cCmd?pcommand;
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readMsg = alarmMsg;
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f.MethaneAlarm;
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pstate == running;
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pumpOn = false;
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skip;
pstate = methanestop;
pumpOn = true;
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124
else;
82
f.High;
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pstate == ready || pstate == lowstop;
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cMethane?pstate;
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pstate == ready;
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cLevel?level;
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readMsg = levelMsg;
81
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level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
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pumpOn = false;
133
131
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skip;
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pstate = running;
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skip;
skip;
skip;
pstate = lowstop;
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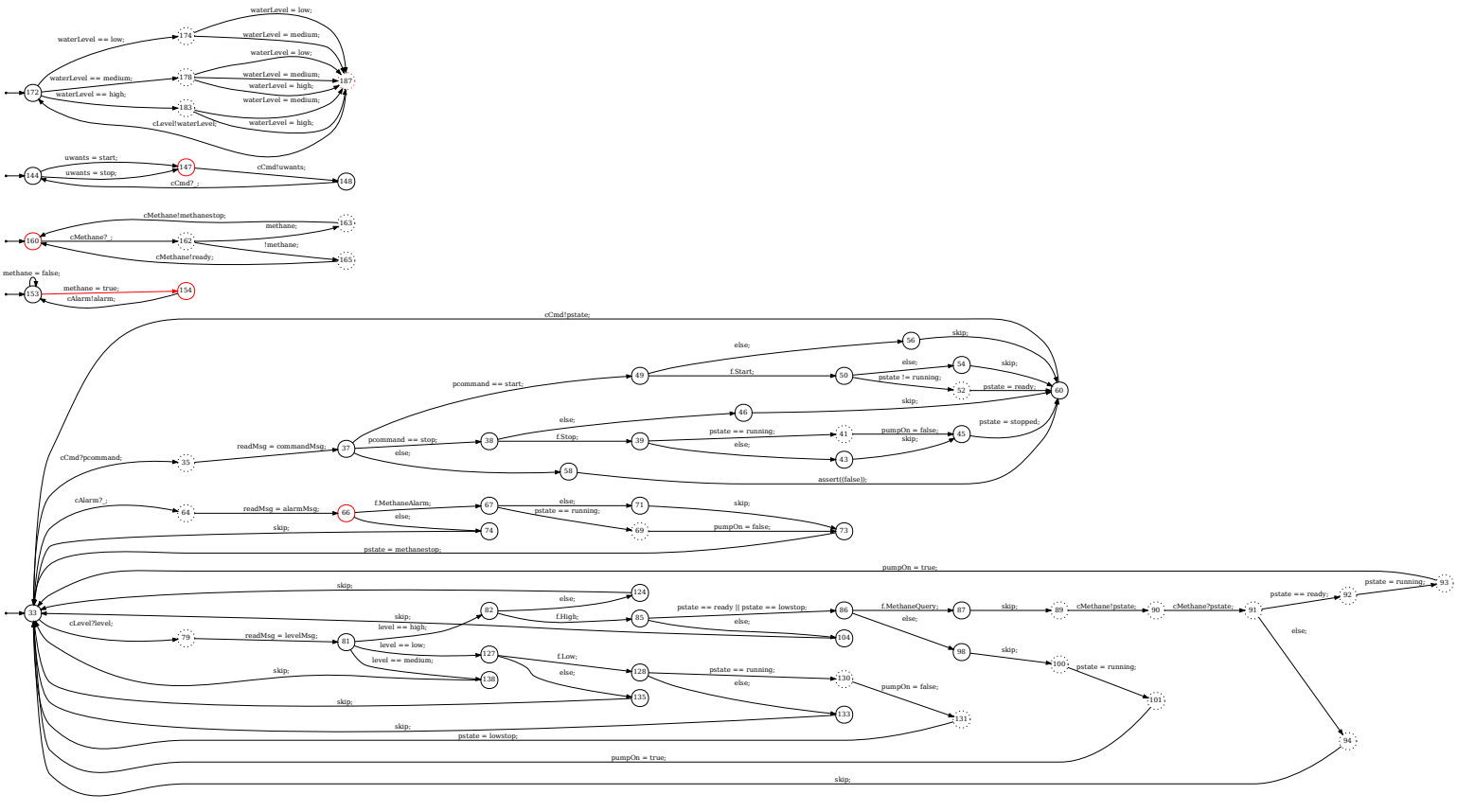
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
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cCmd? ;
160
162
163
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cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
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f.MethaneQuery;
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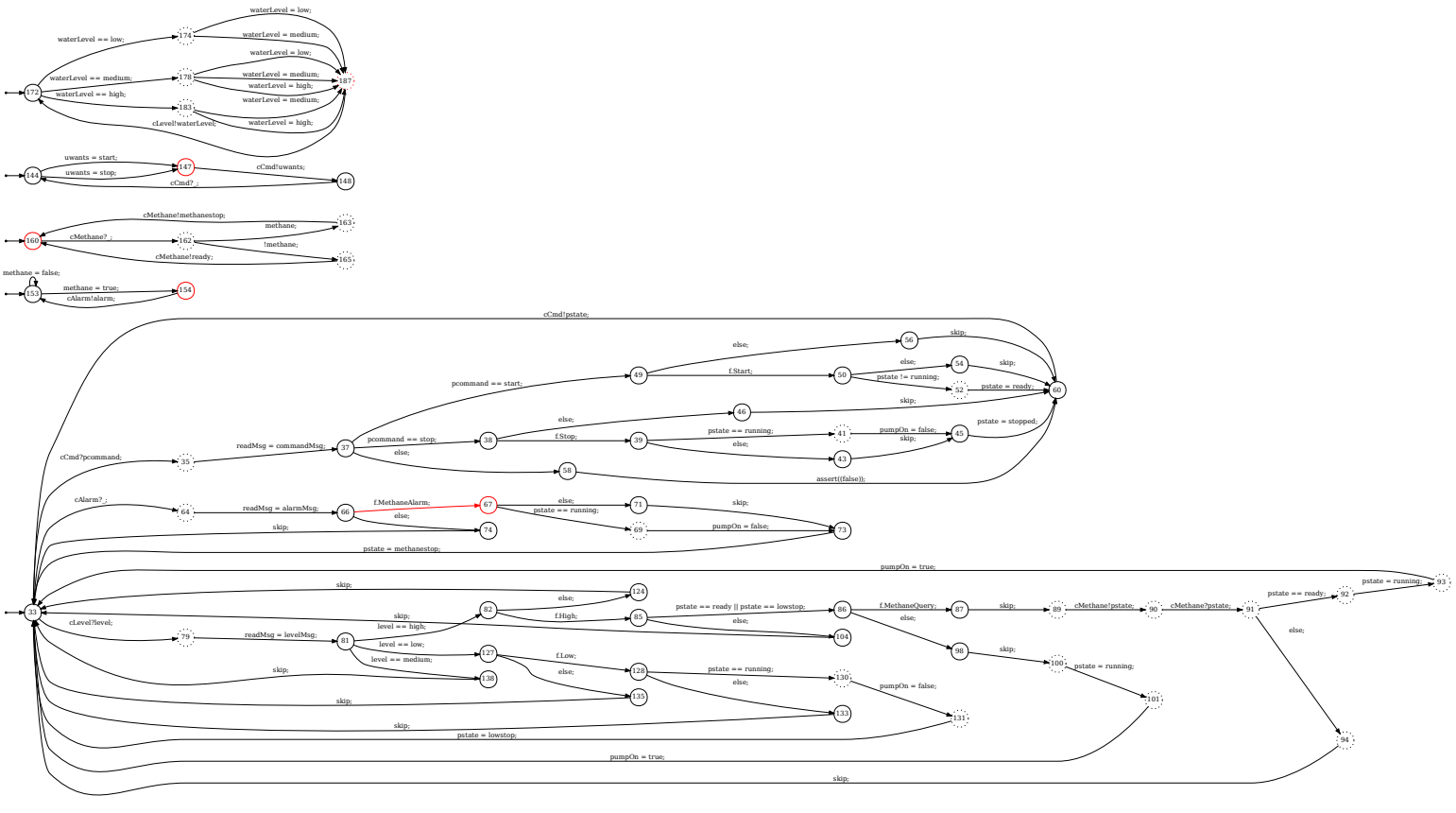
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel == low;
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waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
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cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
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pstate = stopped;
skip;
else;
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else;
38
f.Stop;
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58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
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else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
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cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
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else;
98
skip;
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pstate = running;
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pstate == running;
else;
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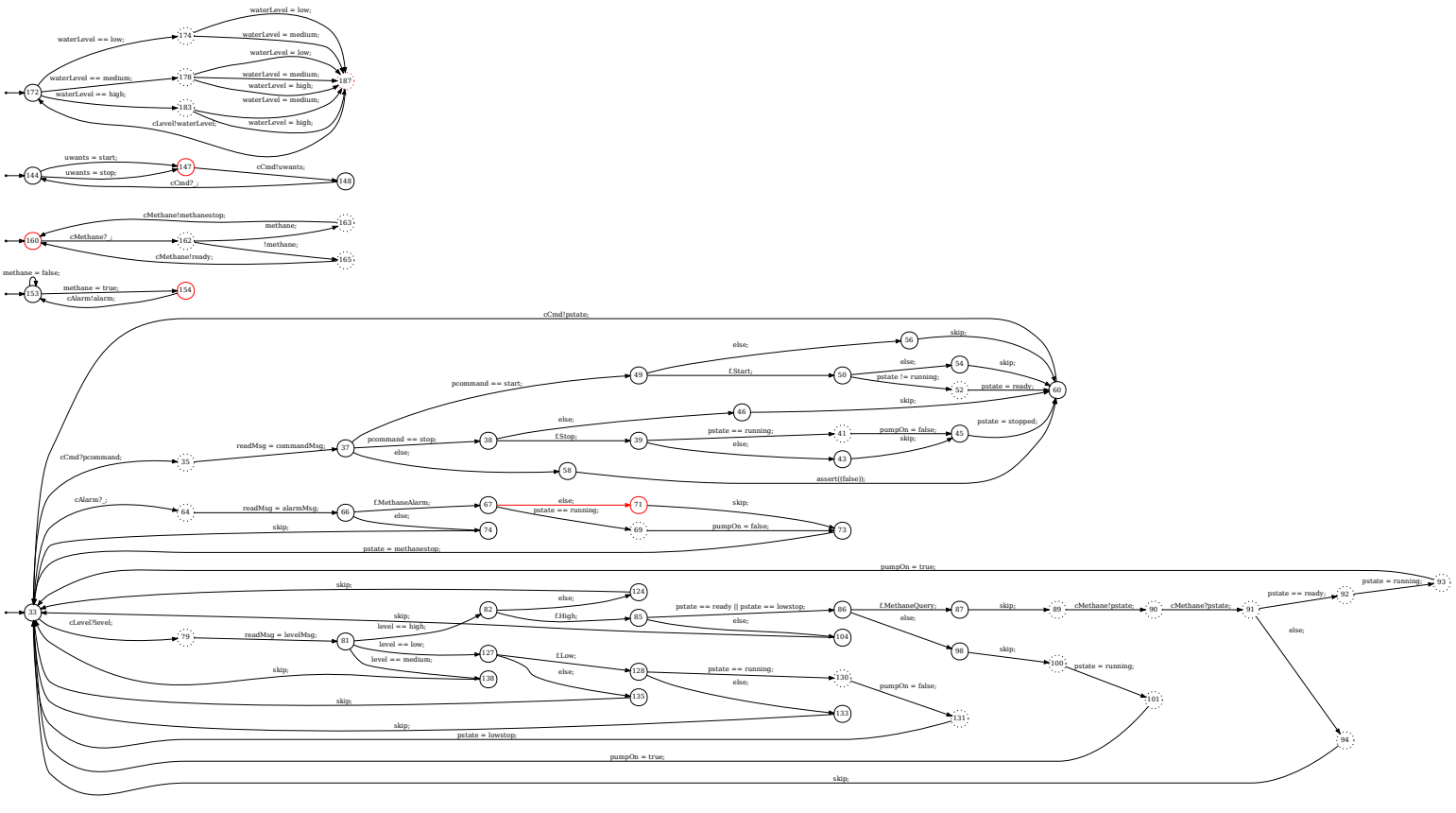
skip;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waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
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163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
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methane = false;
methane = true;
cAlarm!alarm;
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135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
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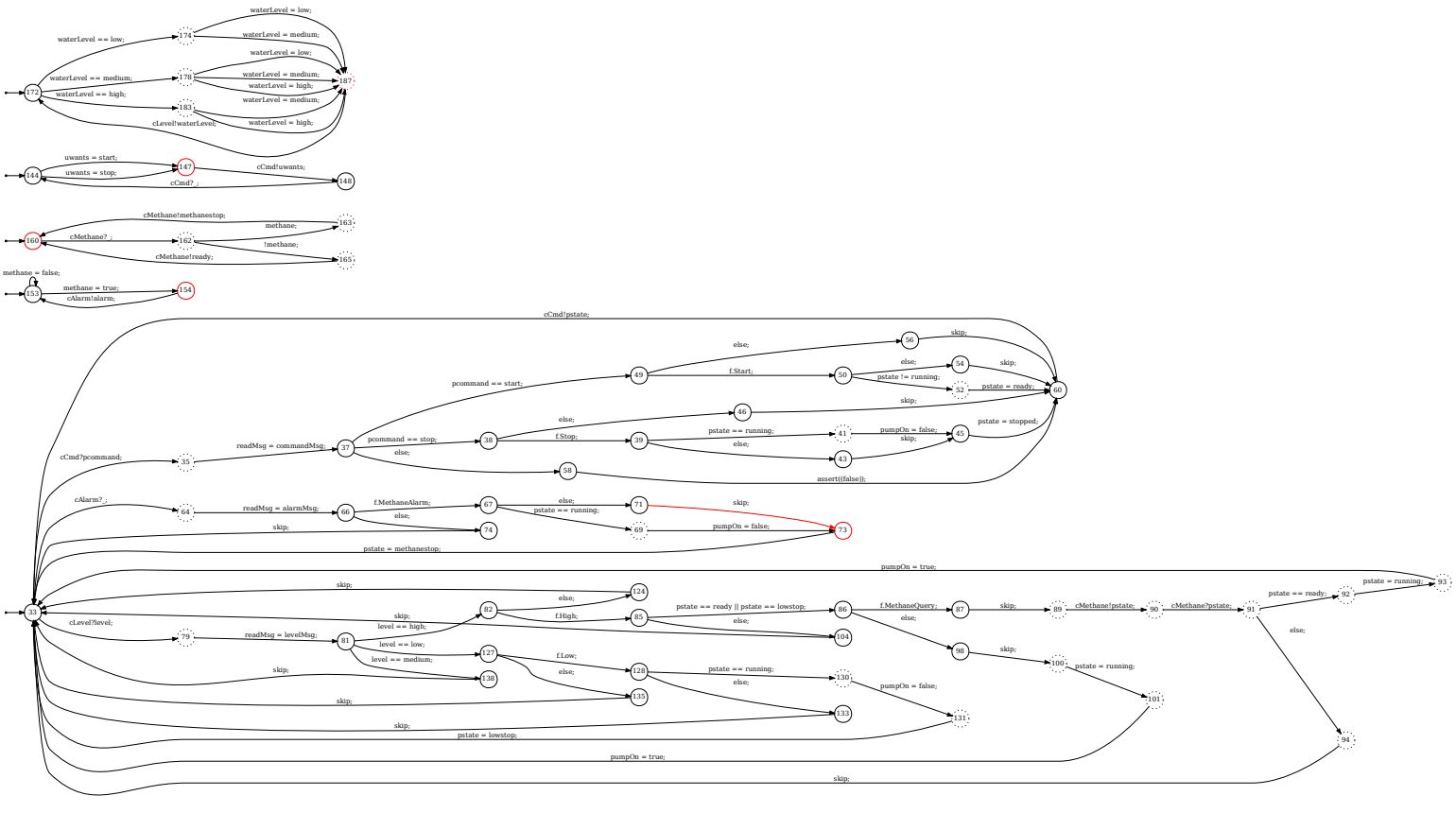
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
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162
163
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cMethane!methanestop;
cMethane? ;
methane;
!methane;
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methane = false;
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methane = true;
cAlarm!alarm;
cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
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cMethane?pstate;
pstate = ready;
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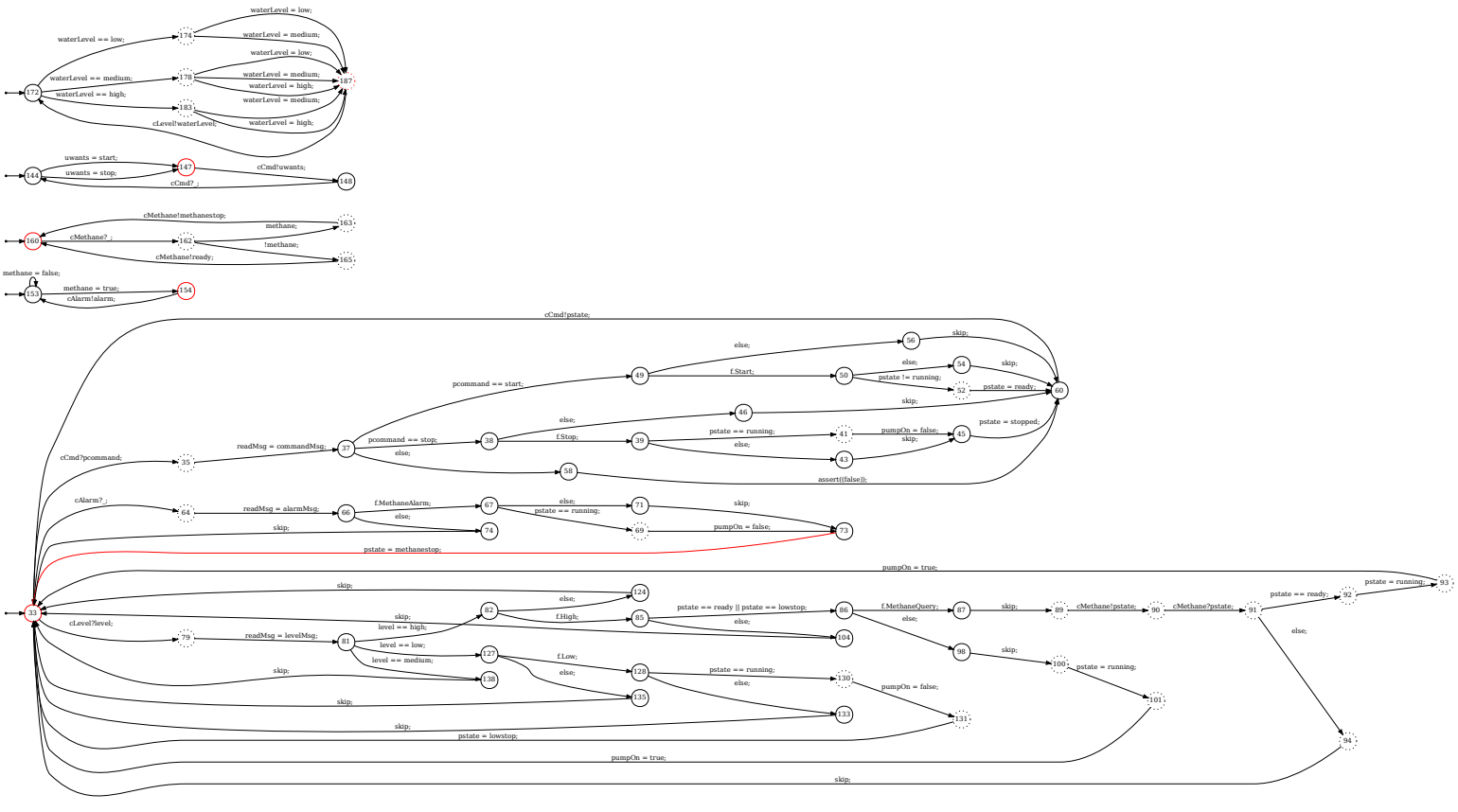
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waterLevel == high;
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49
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50
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46
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124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
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91
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92
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else;
cLevel?level;
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level == high;
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79
readMsg = levelMsg;
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level == low;
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f.Low;
else;
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pstate = running;
level == medium;
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128
pstate == running;
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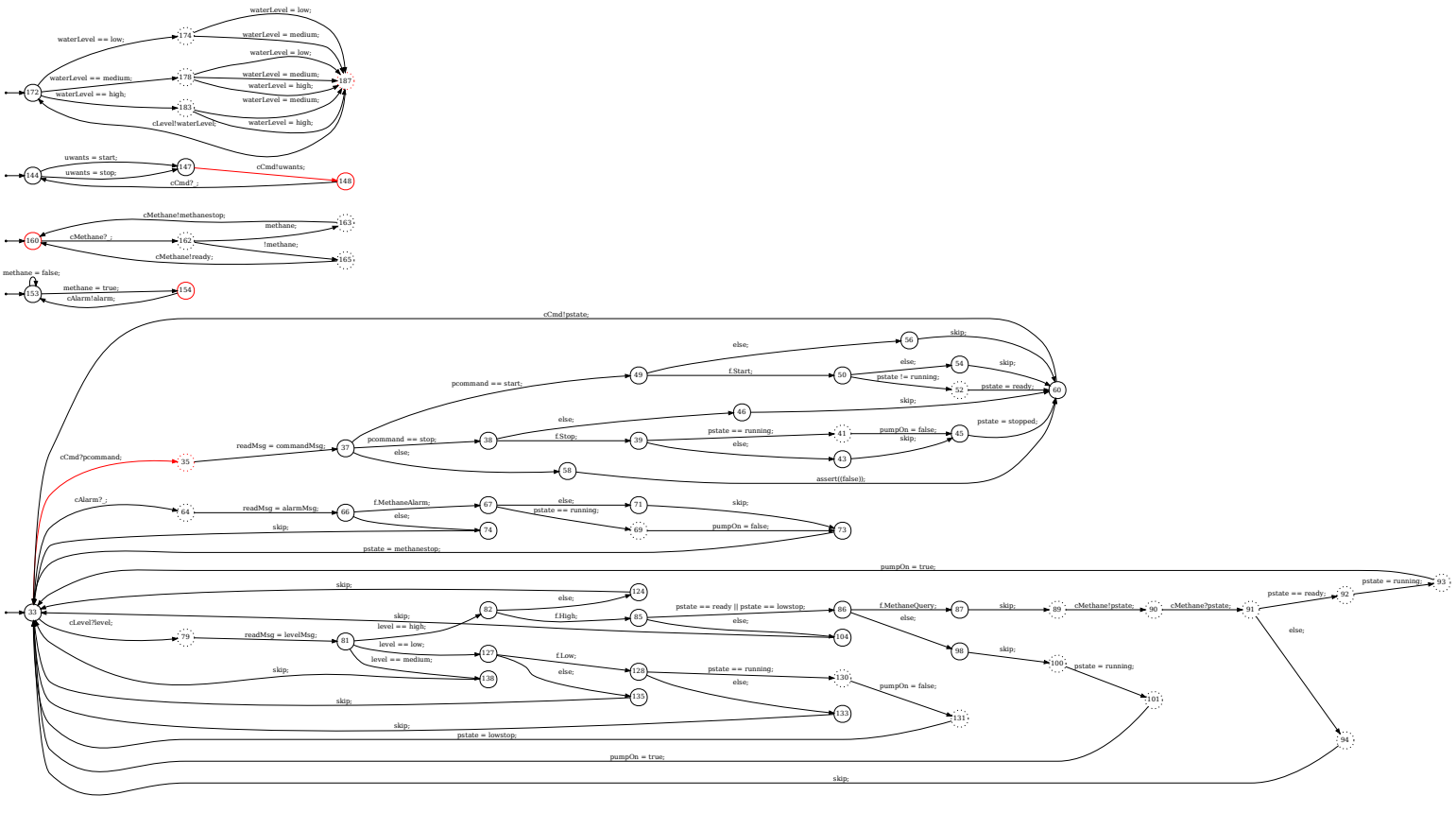
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methane = true;
cAlarm!alarm;
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cCmd!pstate;
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skip;
else;
54
skip;
else;
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f.Start;
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pstate != running;
52
pstate = ready;
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pcommand == start;
46
skip;
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pstate == running;
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else;
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readMsg = alarmMsg;
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else;
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pstate = methanestop;
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skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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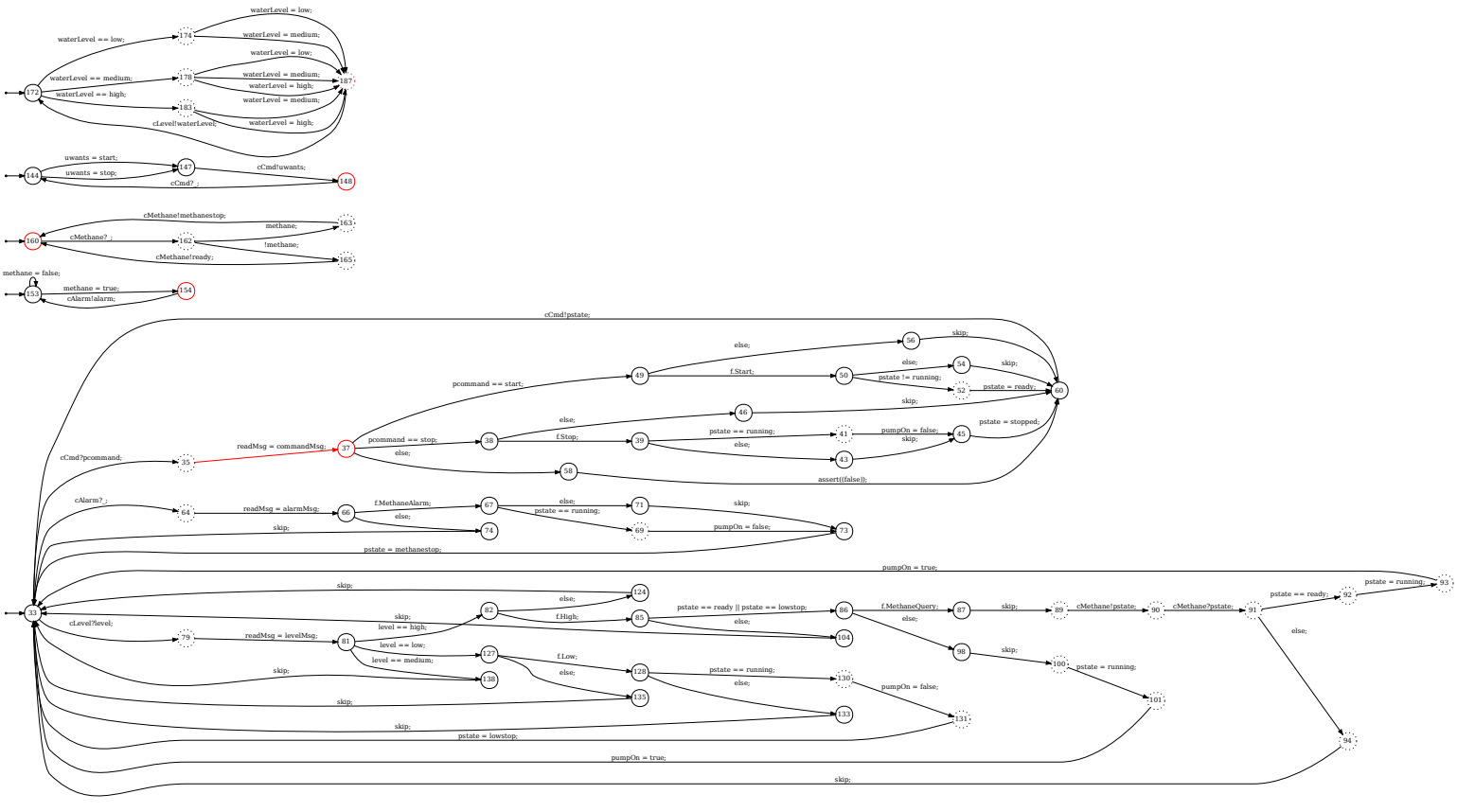
else;
pumpOn = false;
131
pstate == ready;
92
pstate = running;
93
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
else;
43
else;
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
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skip;
level == high;
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79
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level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
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pstate = running;
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pstate == running;
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pstate = lowstop;
pumpOn = true;
skip;
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pstate = ready;
93
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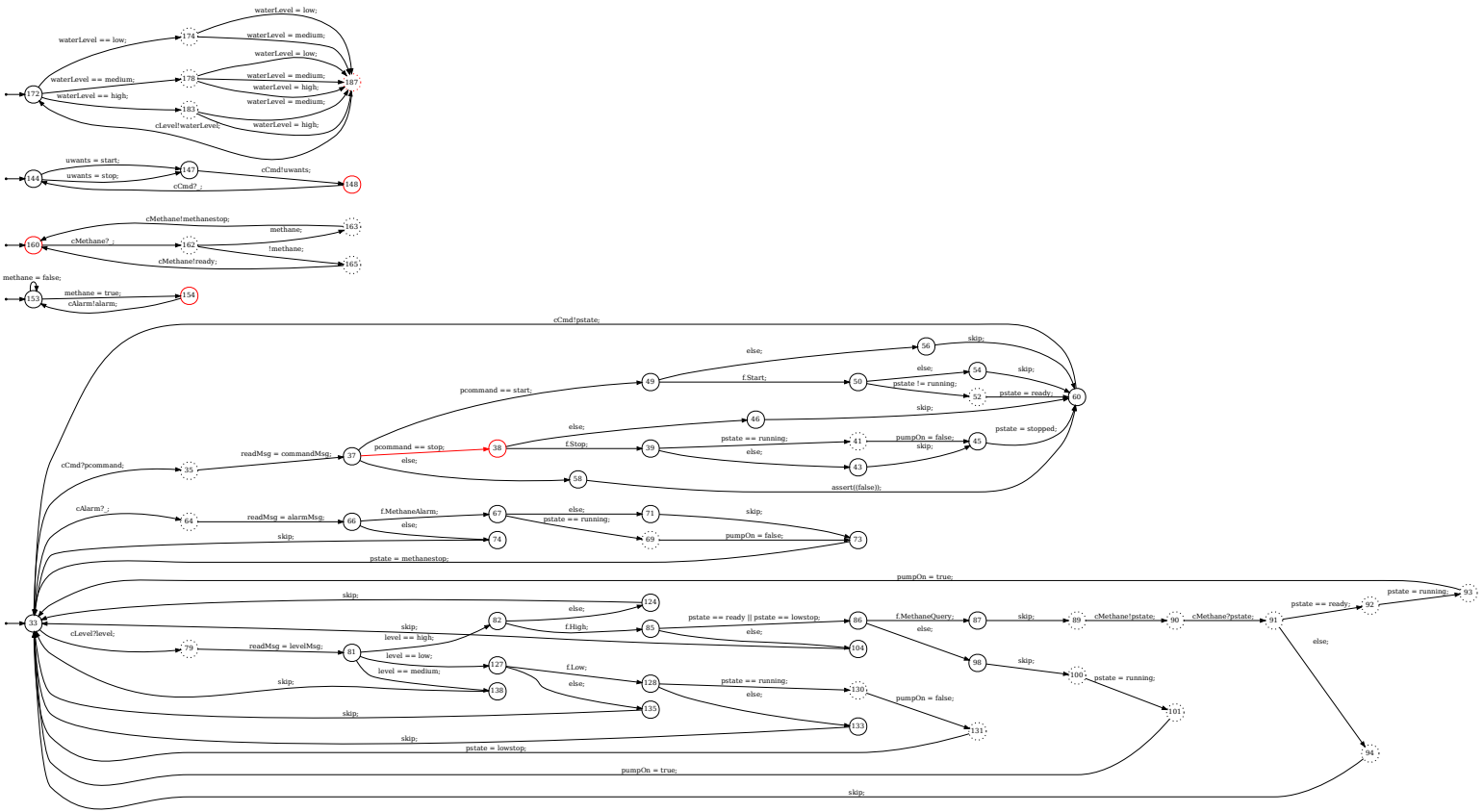
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
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methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
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49
f.Start;
50
pstate != running;
52
pstate = ready;
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pcommand == start;
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pstate == running;
41
pumpOn = false;
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pstate = stopped;
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assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
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64
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66
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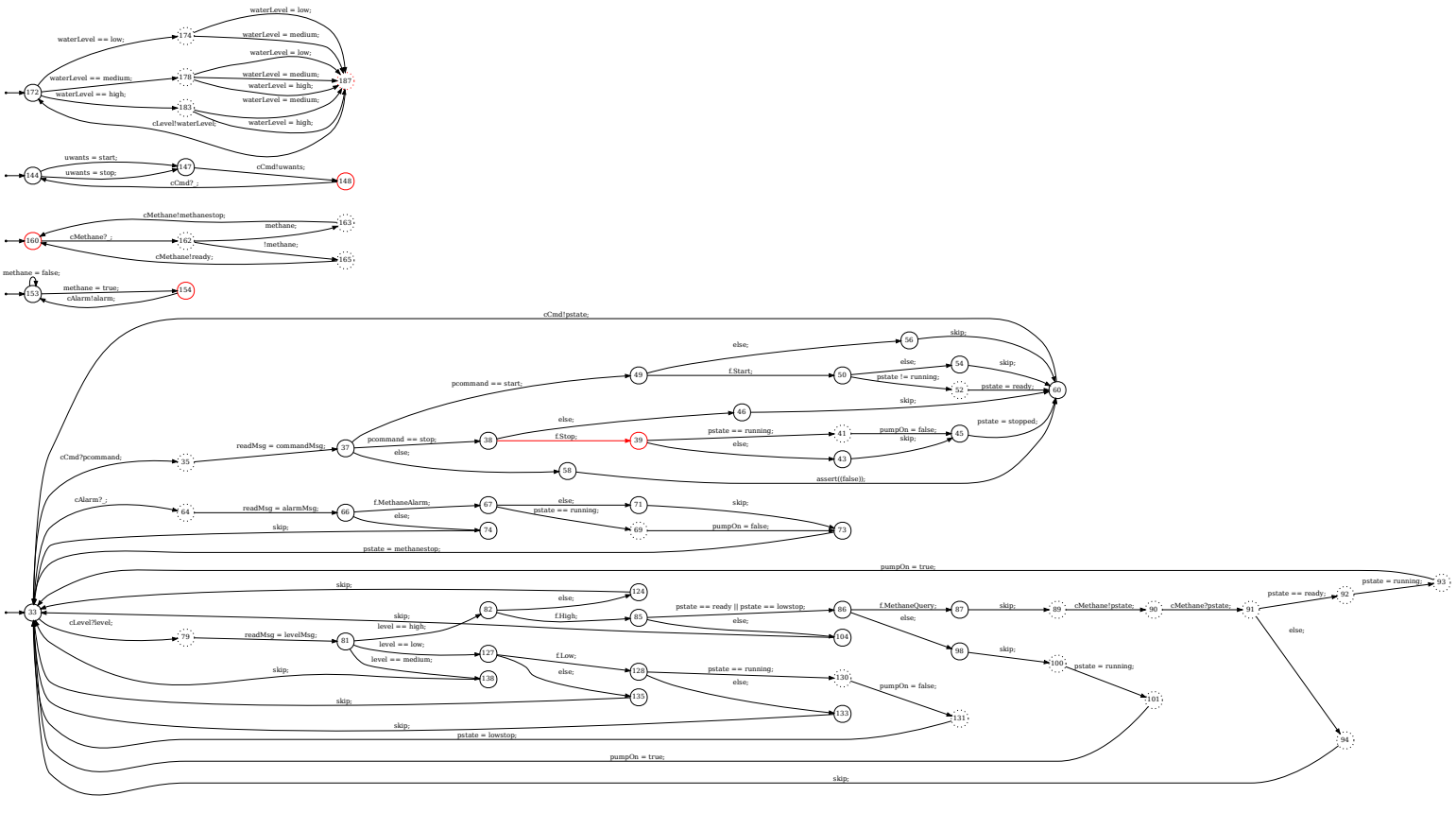
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methane;
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pstate = running;
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pstate = running;
101
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pumpOn = true;
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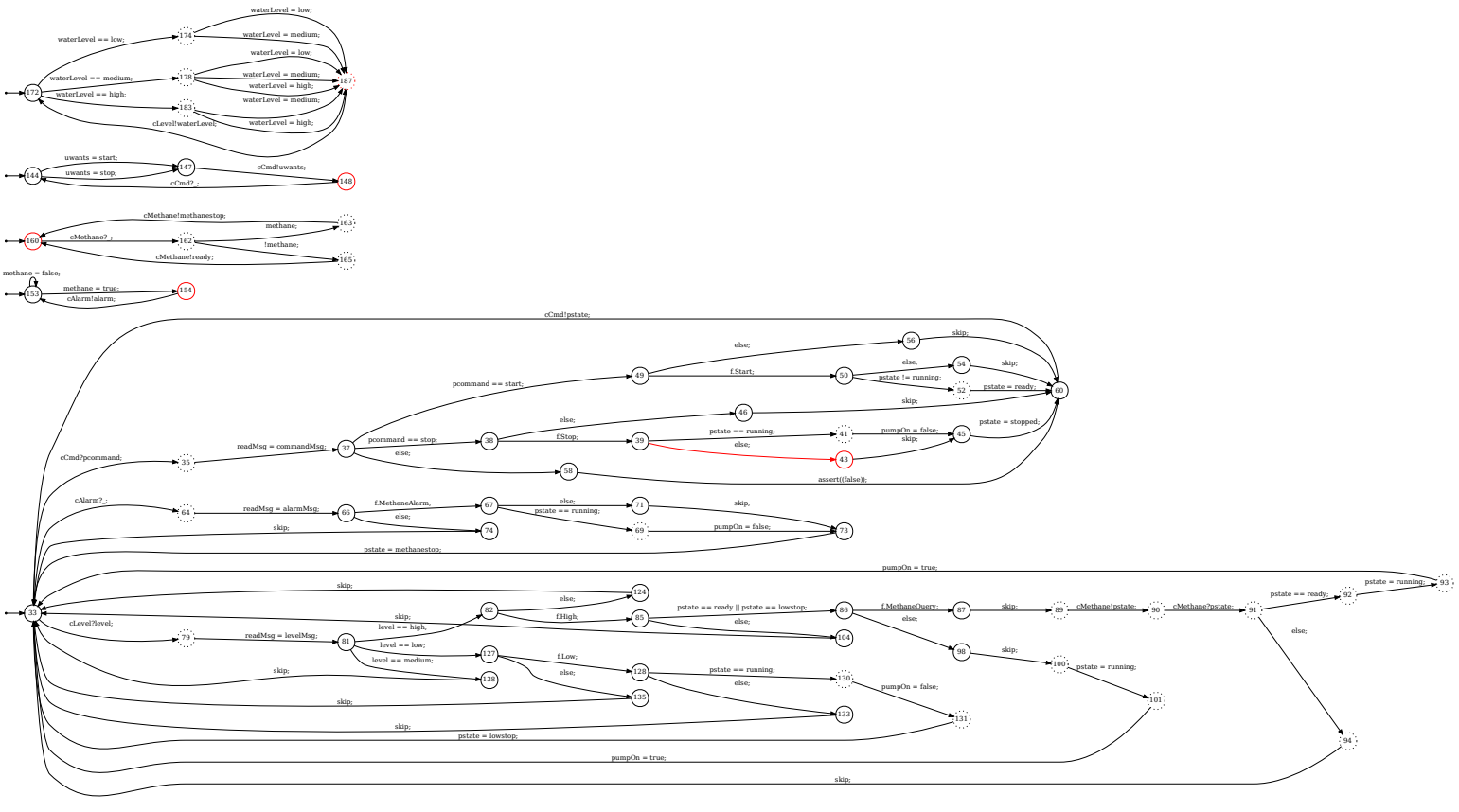
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waterLevel = low;
waterLevel == high;
waterLevel = high;
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162
163
165
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cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
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138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
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else;
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skip;
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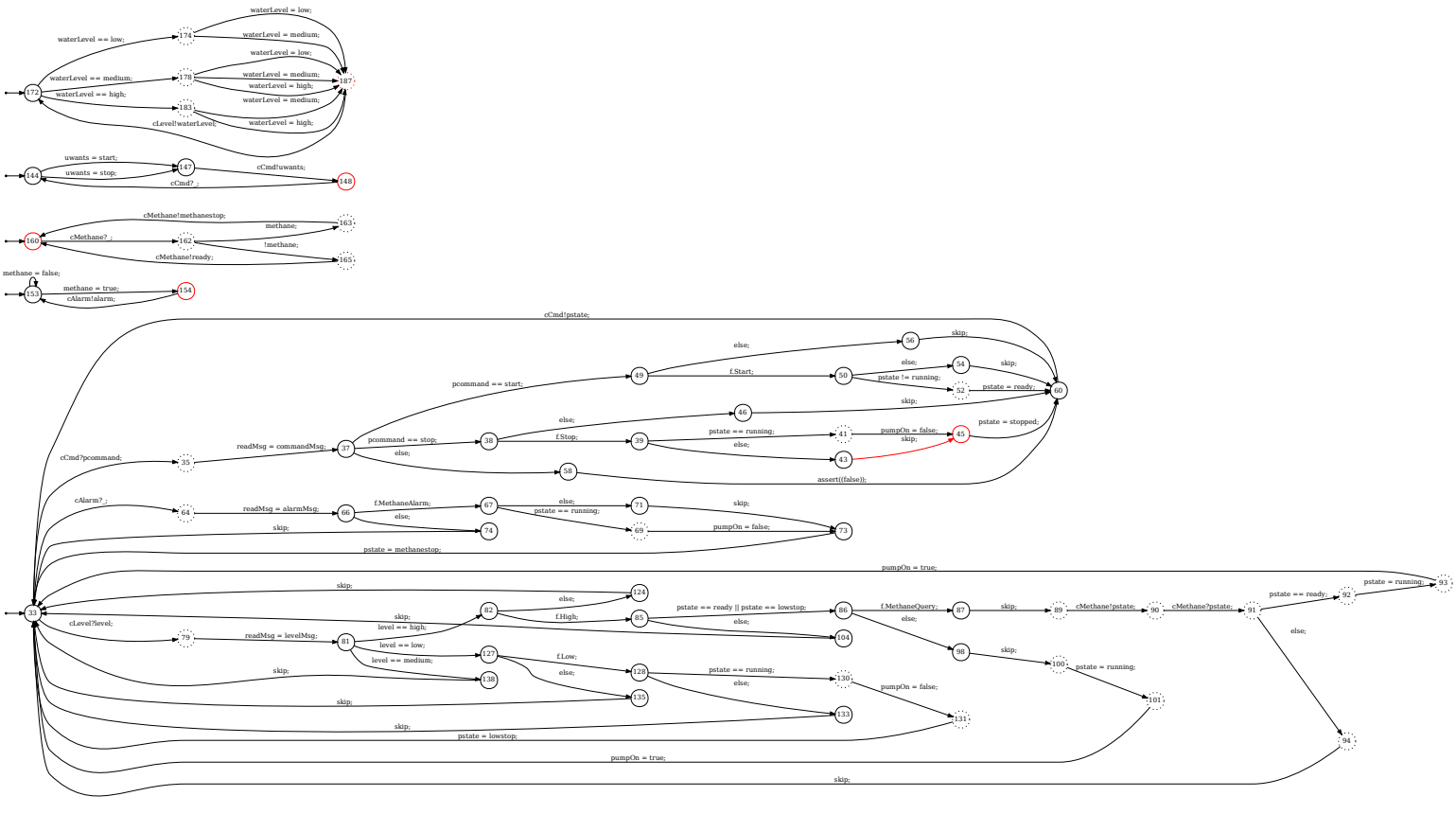
skip;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waterLevel == medium;
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waterLevel = medium;
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waterLevel == high;
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cCmd?pcommand;
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pcommand == stop;
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pstate = running;
93
94
skip;
pstate = lowstop;
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else;
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skip;
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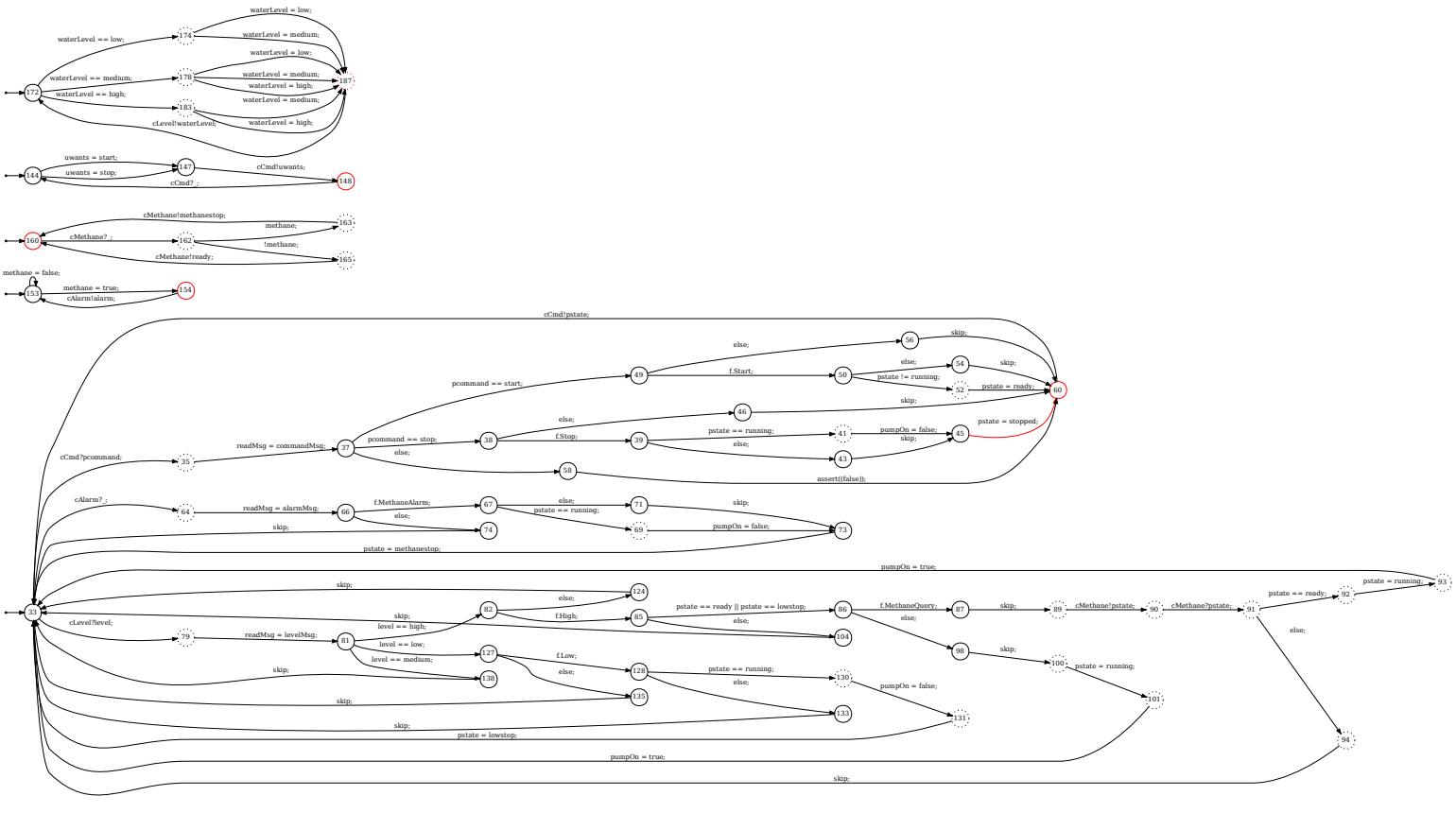
pumpOn = true;
skip;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waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
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f.High;
85
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cLevel?level;
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level == medium;
127
f.Low;
else;
128
else;
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135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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87
skip;
89
cMethane!pstate;
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cMethane?pstate;
91
pstate == ready;
92
pstate = running;
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else;
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skip;
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pstate = running;
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pstate == running;
else;
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skip;
skip;
pstate = lowstop;
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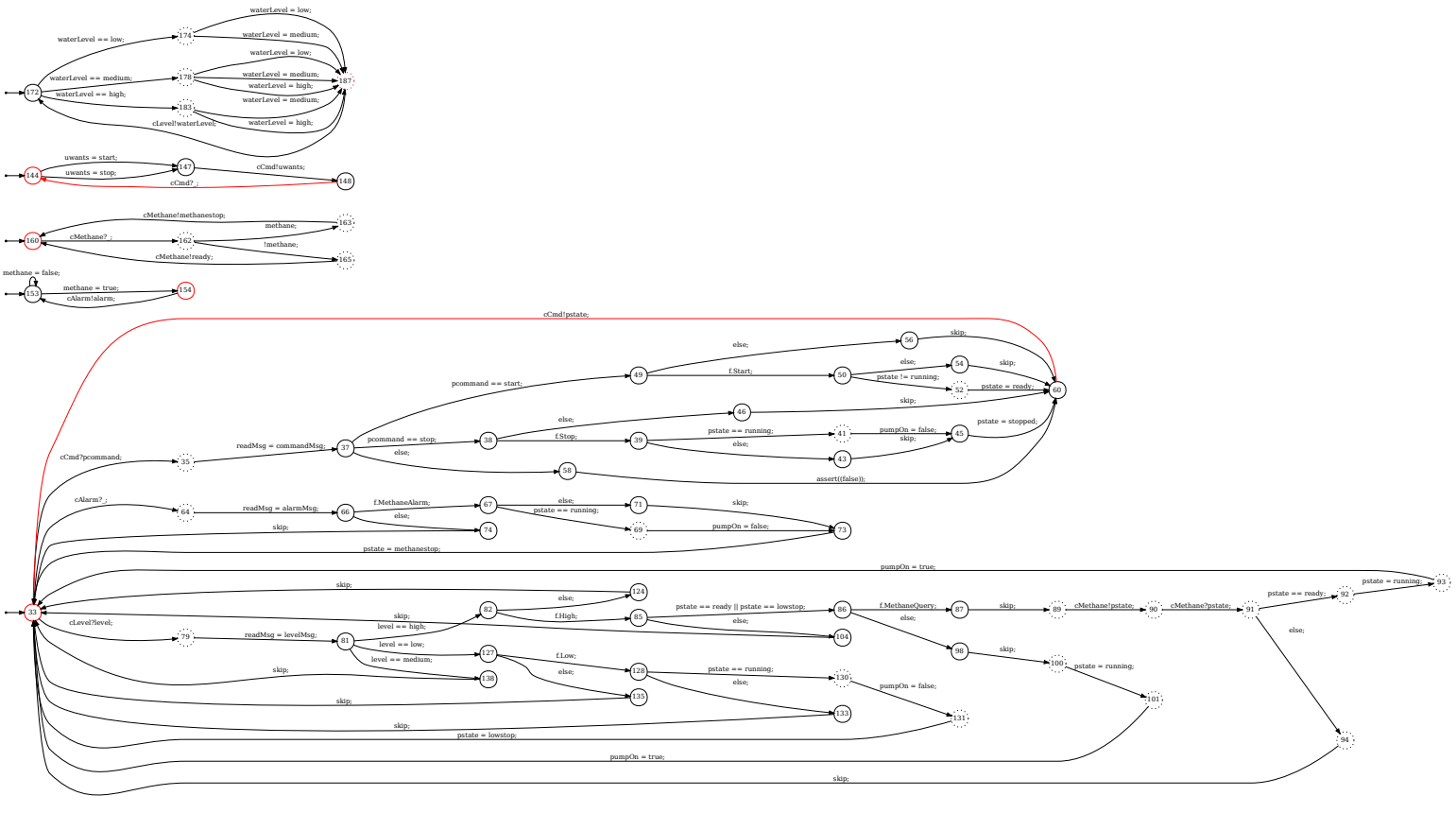
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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
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cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
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49
f.Start;
50
pstate != running;
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60
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skip;
46
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38
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cCmd?pcommand;
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readMsg = commandMsg;
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f.MethaneAlarm;
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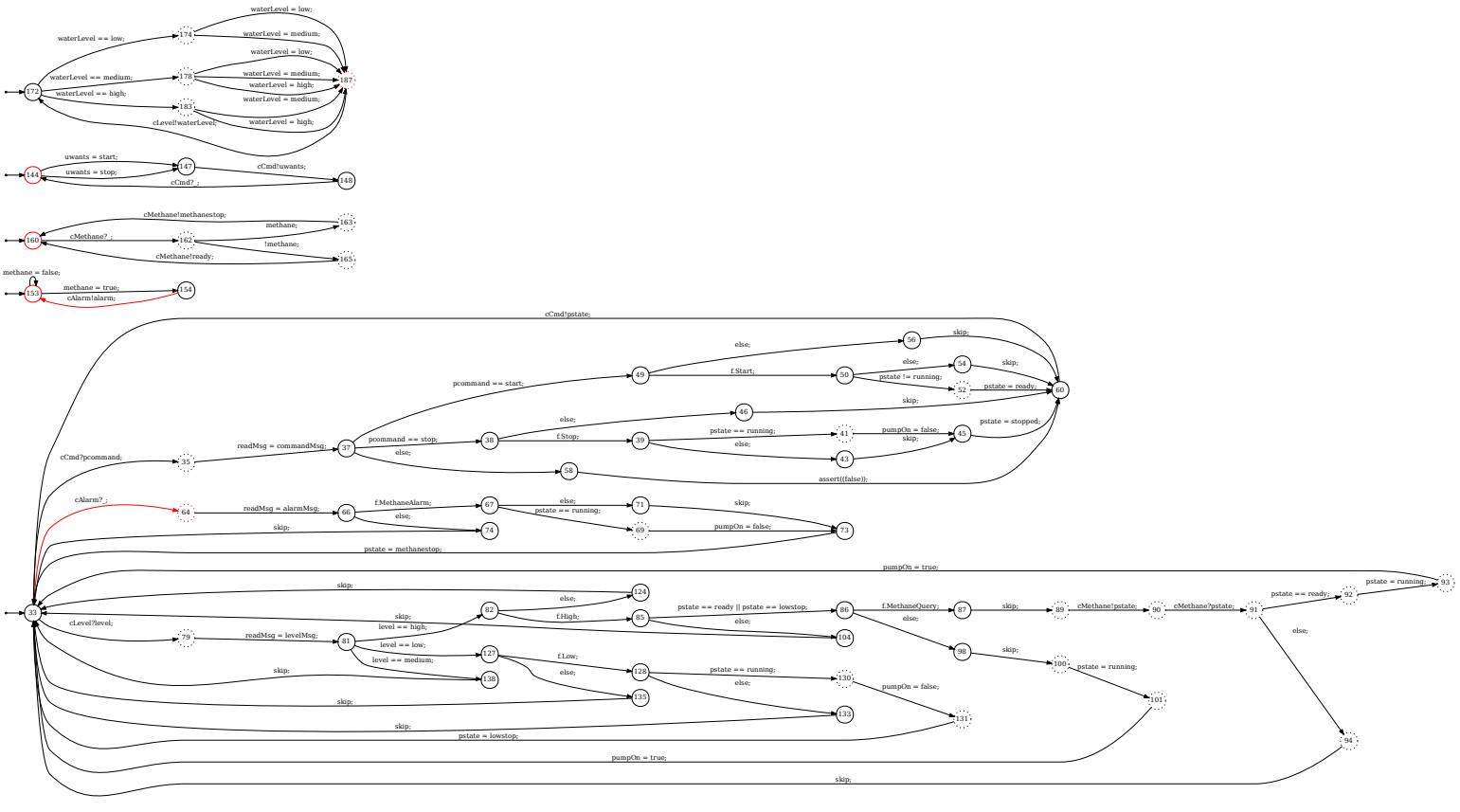
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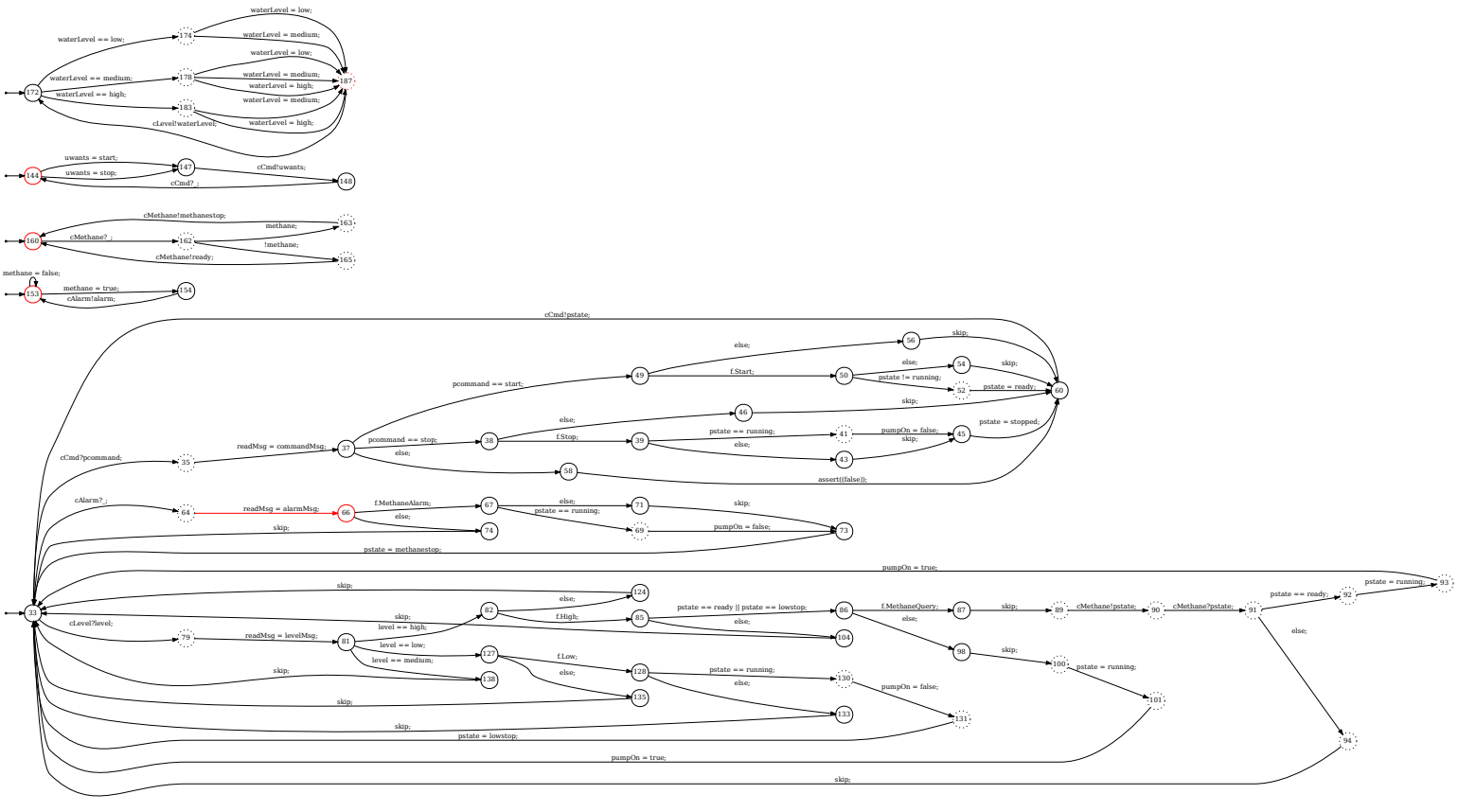
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skip;
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39
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skip;
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86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
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skip;
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pstate = running;
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pstate == running;
else;
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pumpOn = false;
133
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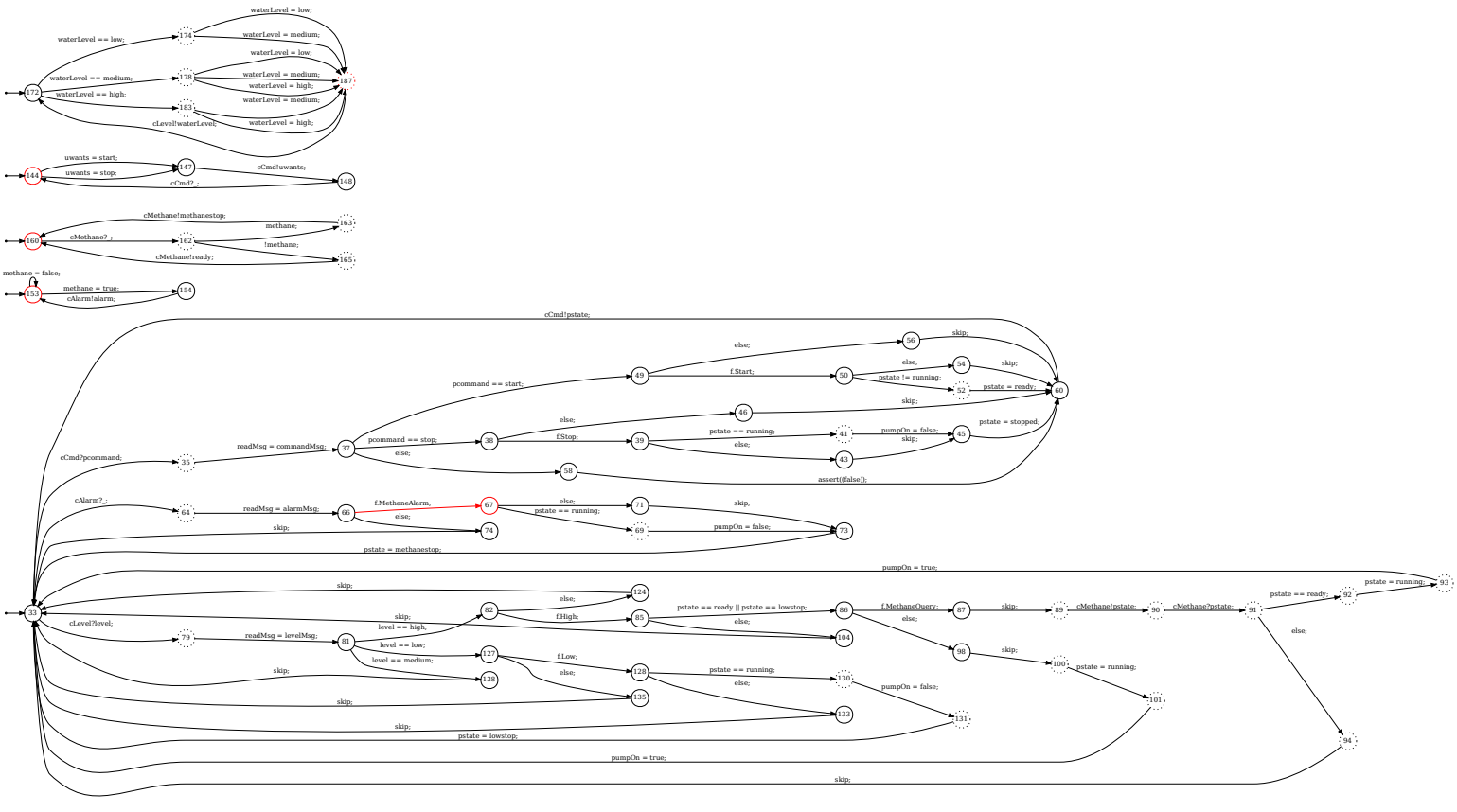
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
52
pstate != running;
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
pstate == running;
else;
43
38
39
f.Stop;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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skip;
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pstate = running;
101
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skip;
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skip;
pstate = lowstop;
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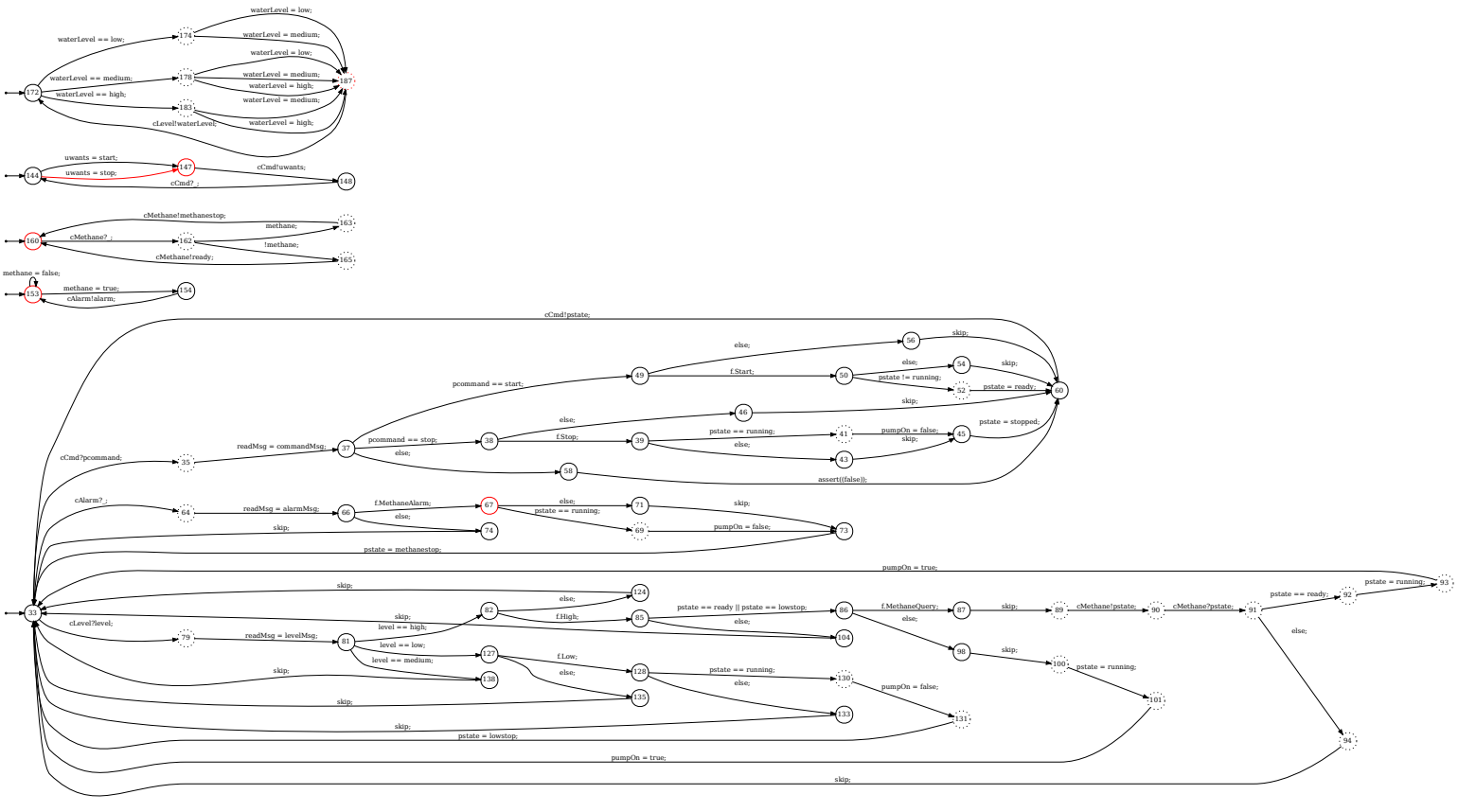
skip;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waterLevel = medium;
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183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
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skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
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66
f.MethaneAlarm;
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67
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71
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69
skip;
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73
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138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
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pstate = running;
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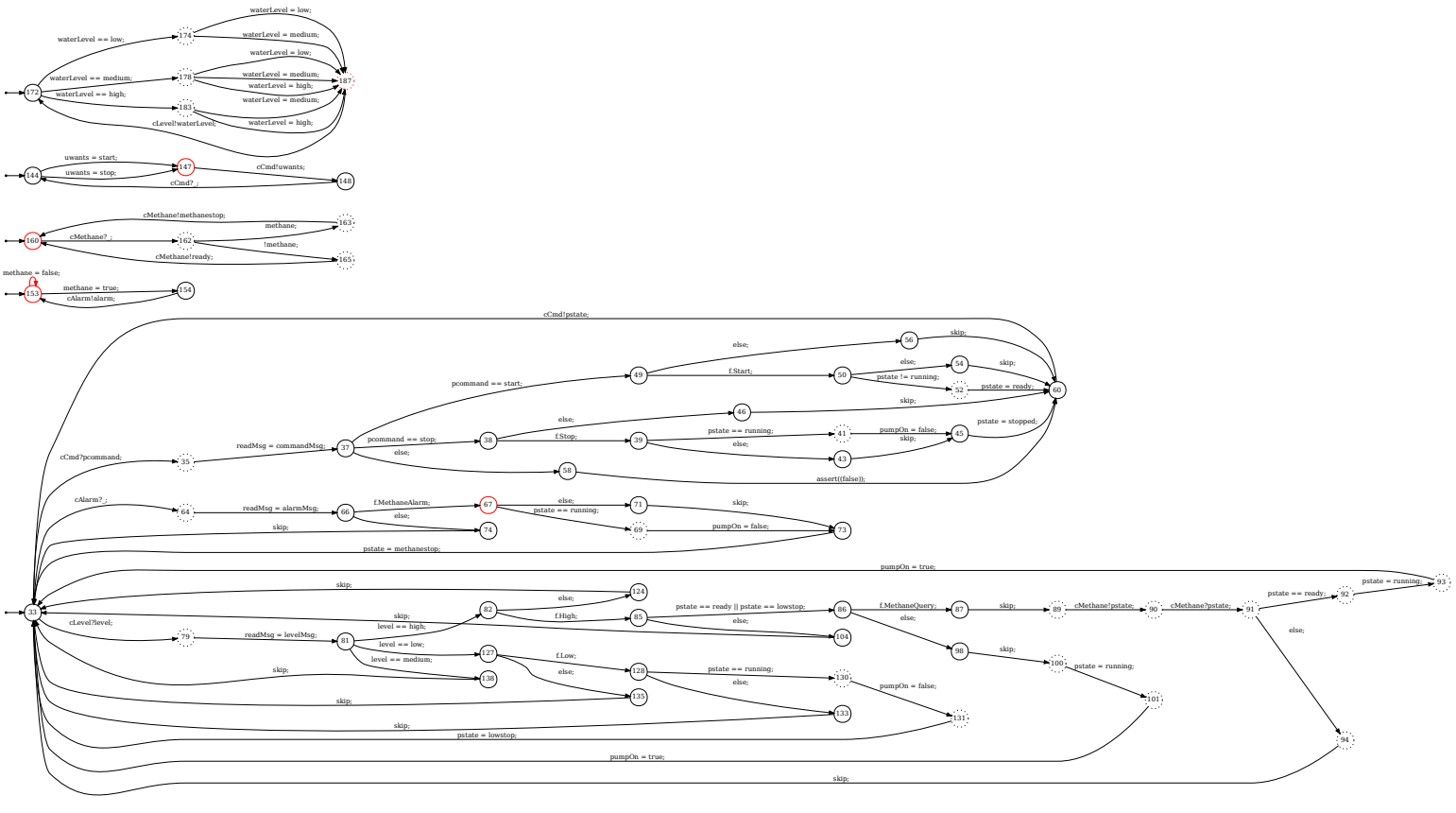
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waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
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skip;
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pstate = ready;
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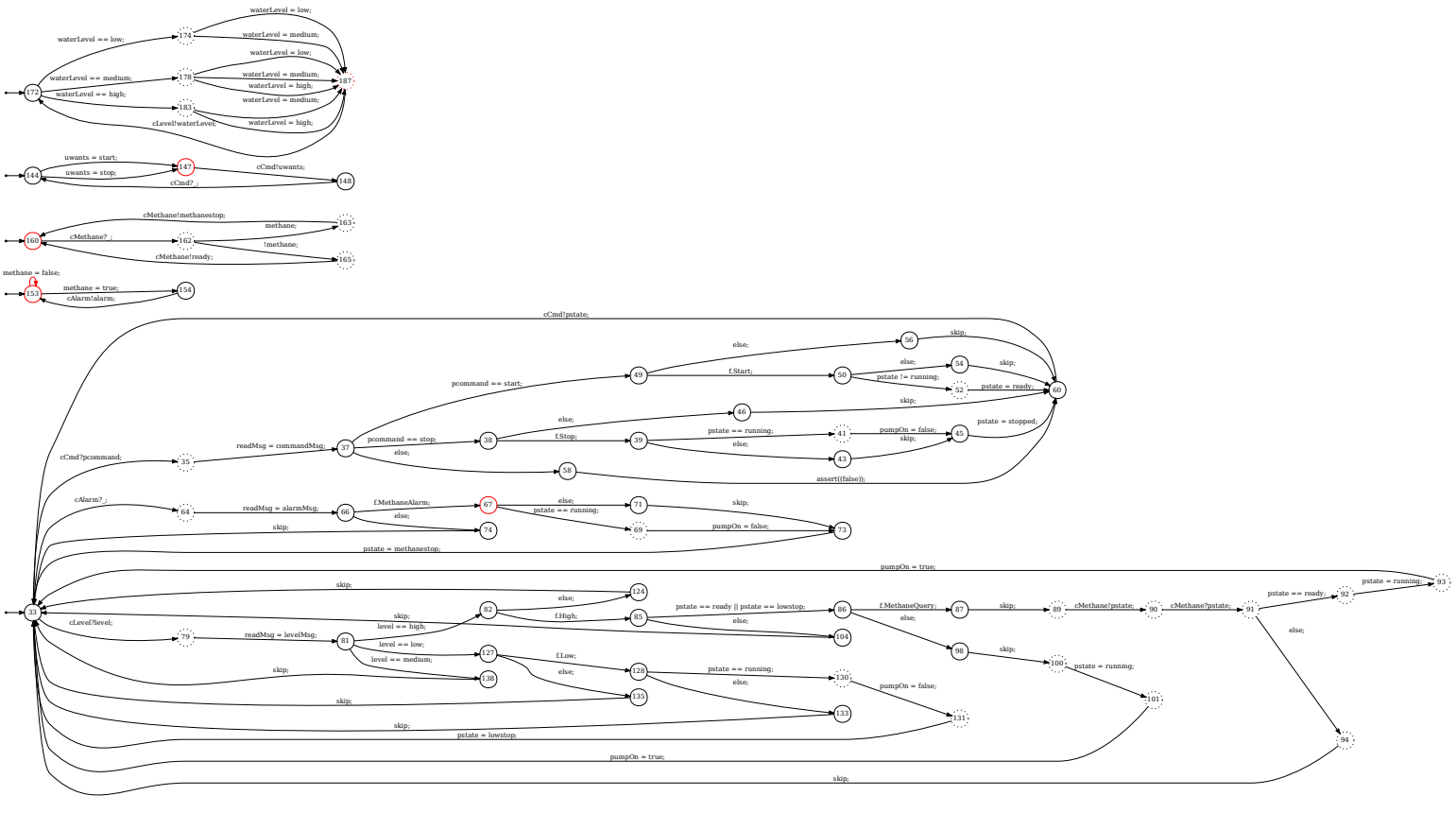
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cCmd? ;
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163
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cMethane? ;
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!methane;
cMethane!ready;
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154
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methane = true;
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cCmd!pstate;
56
skip;
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skip;
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f.Start;
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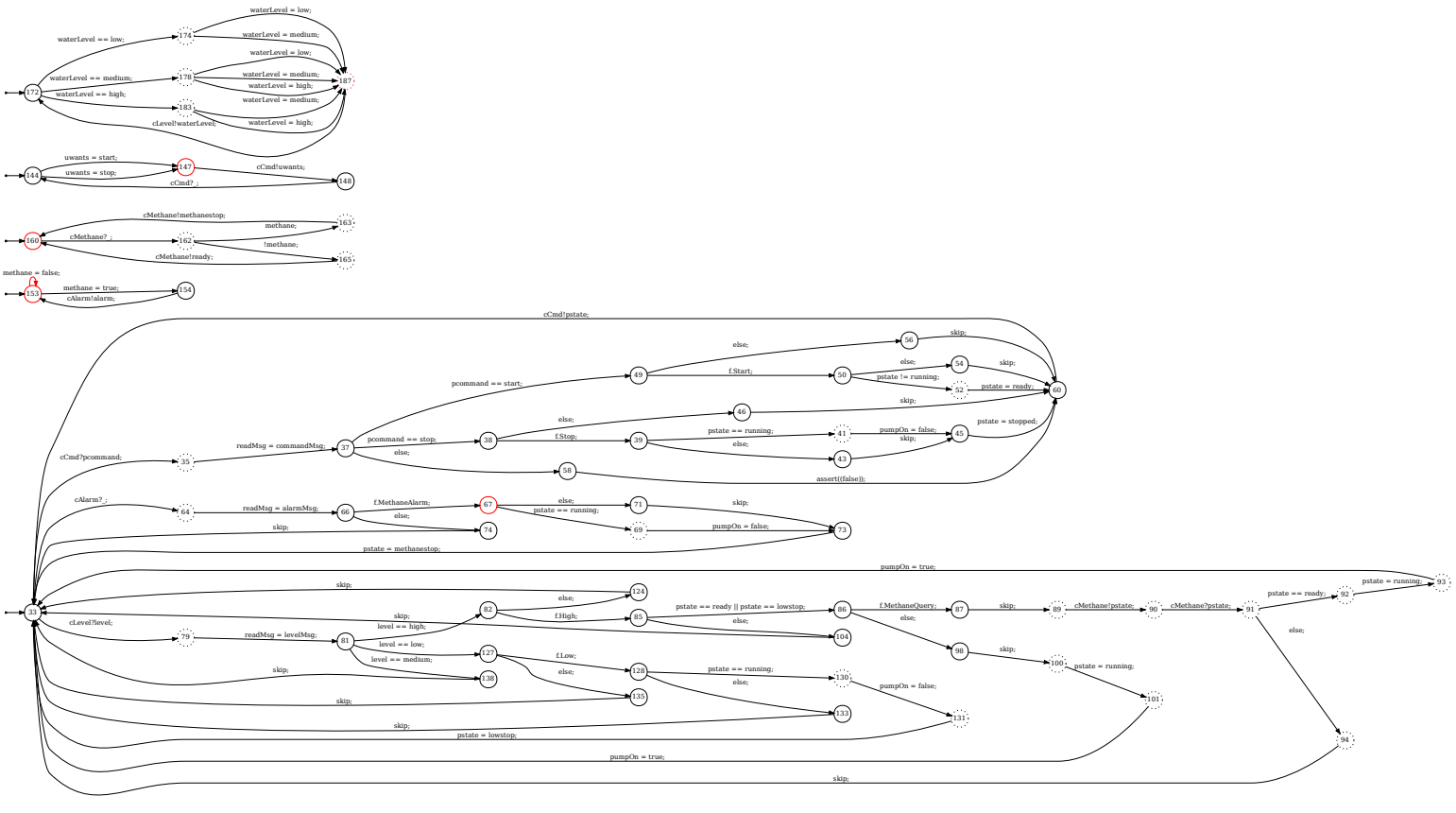
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waterLevel = low;
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waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
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147
148
uwants = start;
uwants = stop;
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cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
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54
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f.Start;
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pstate = stopped;
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71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
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86
f.MethaneQuery;
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pumpOn = true;
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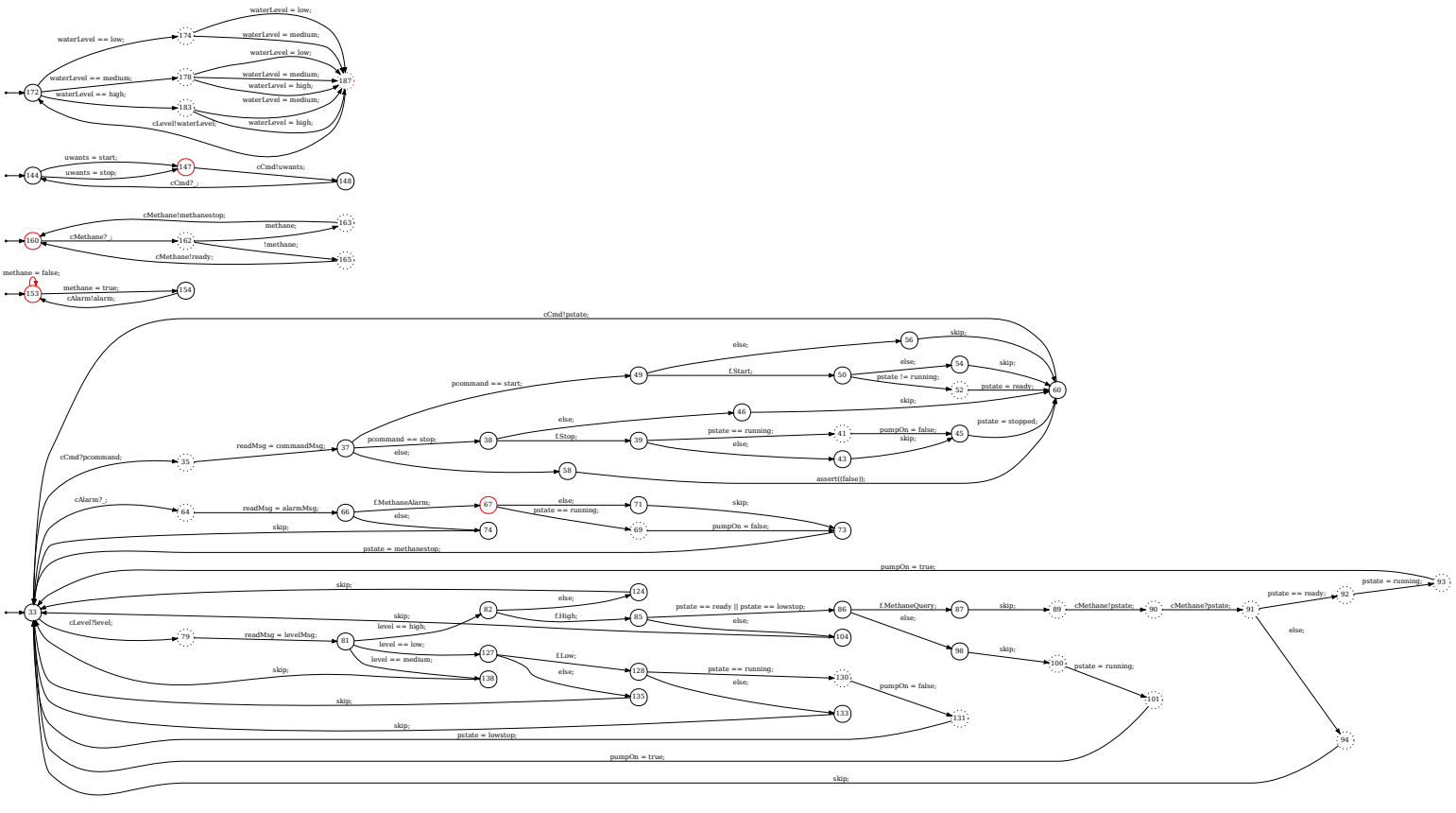
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cCmd?pcommand;
35
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
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f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
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cMethane!pstate;
90
cMethane?pstate;
91
else;
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skip;
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pstate = running;
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pstate == running;
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pumpOn = true;
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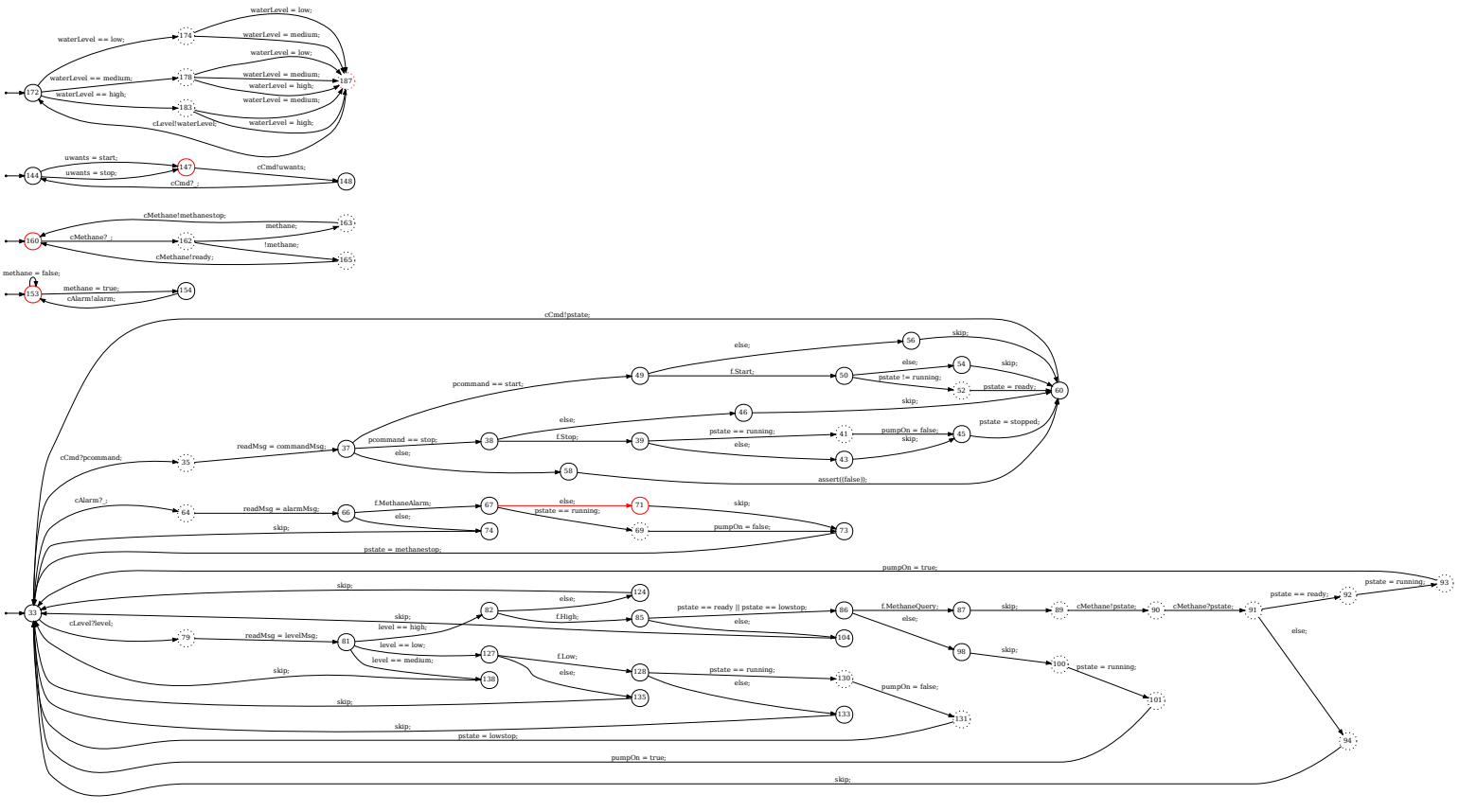
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waterLevel == high;
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
pstate == running;
71
skip;
74
69
pumpOn = false;
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skip;
pstate = methanestop;
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skip;
124
else;
82
f.High;
85
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104
cLevel?level;
79
readMsg = levelMsg;
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skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
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else;
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skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
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else;
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skip;
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pstate = running;
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131
133
pumpOn = false;
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cMethane?pstate;
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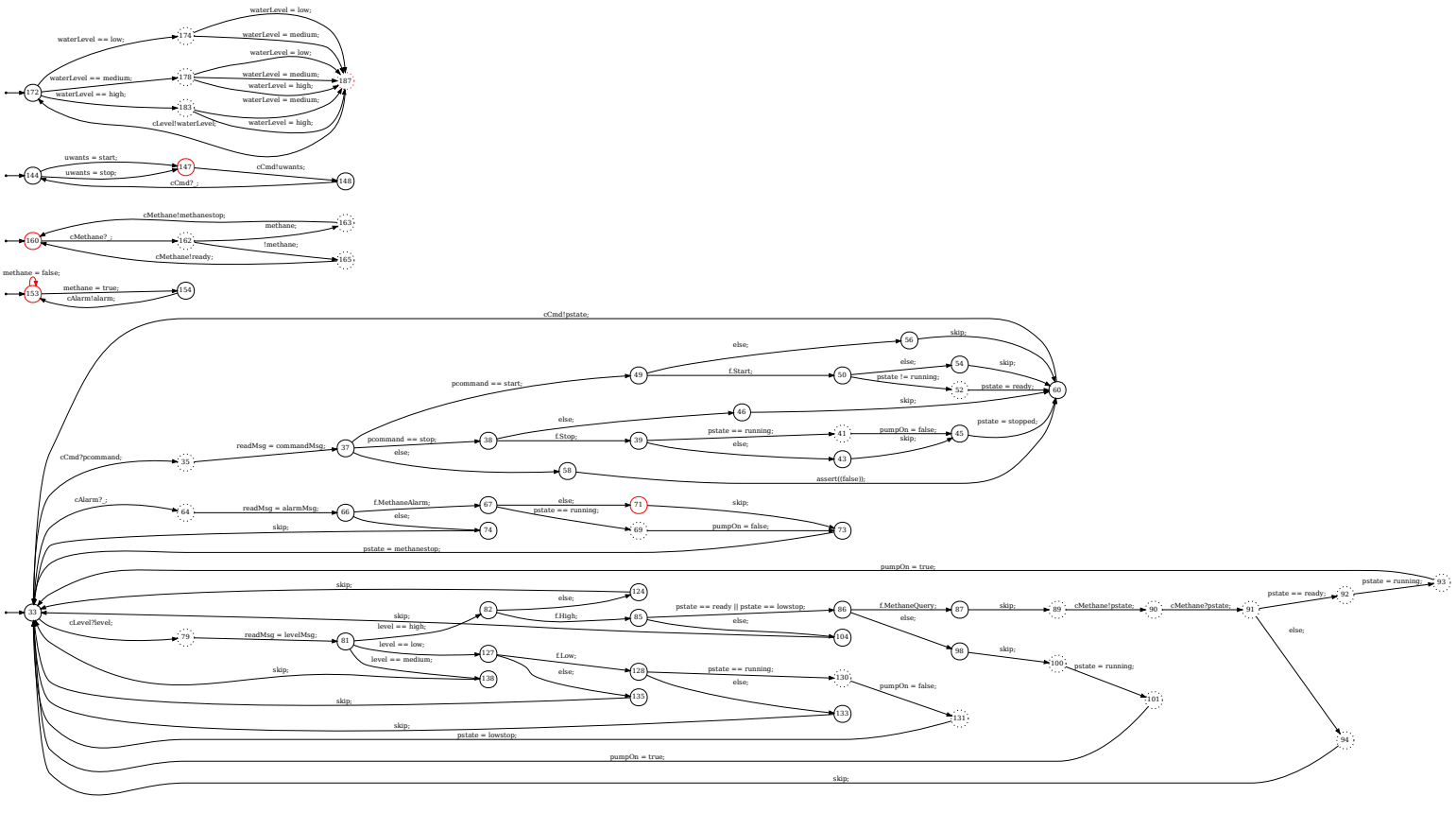
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waterLevel = low;
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f.Stop;
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readMsg = levelMsg;
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f.High;
else;
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else;
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level == medium;
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else;
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pumpOn = false;
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skip;
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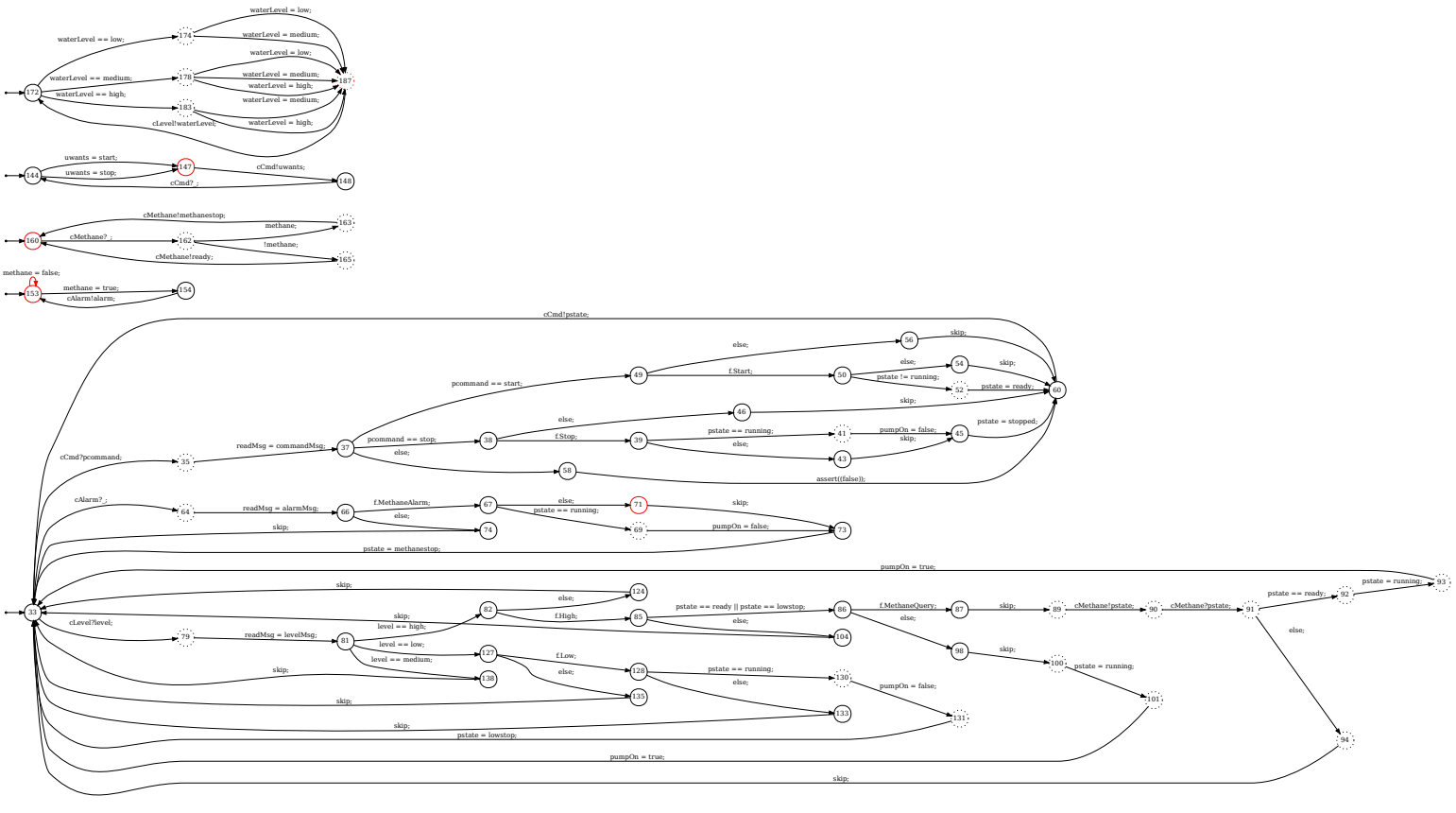
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else;
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level == medium;
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pumpOn = false;
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pstate = running;
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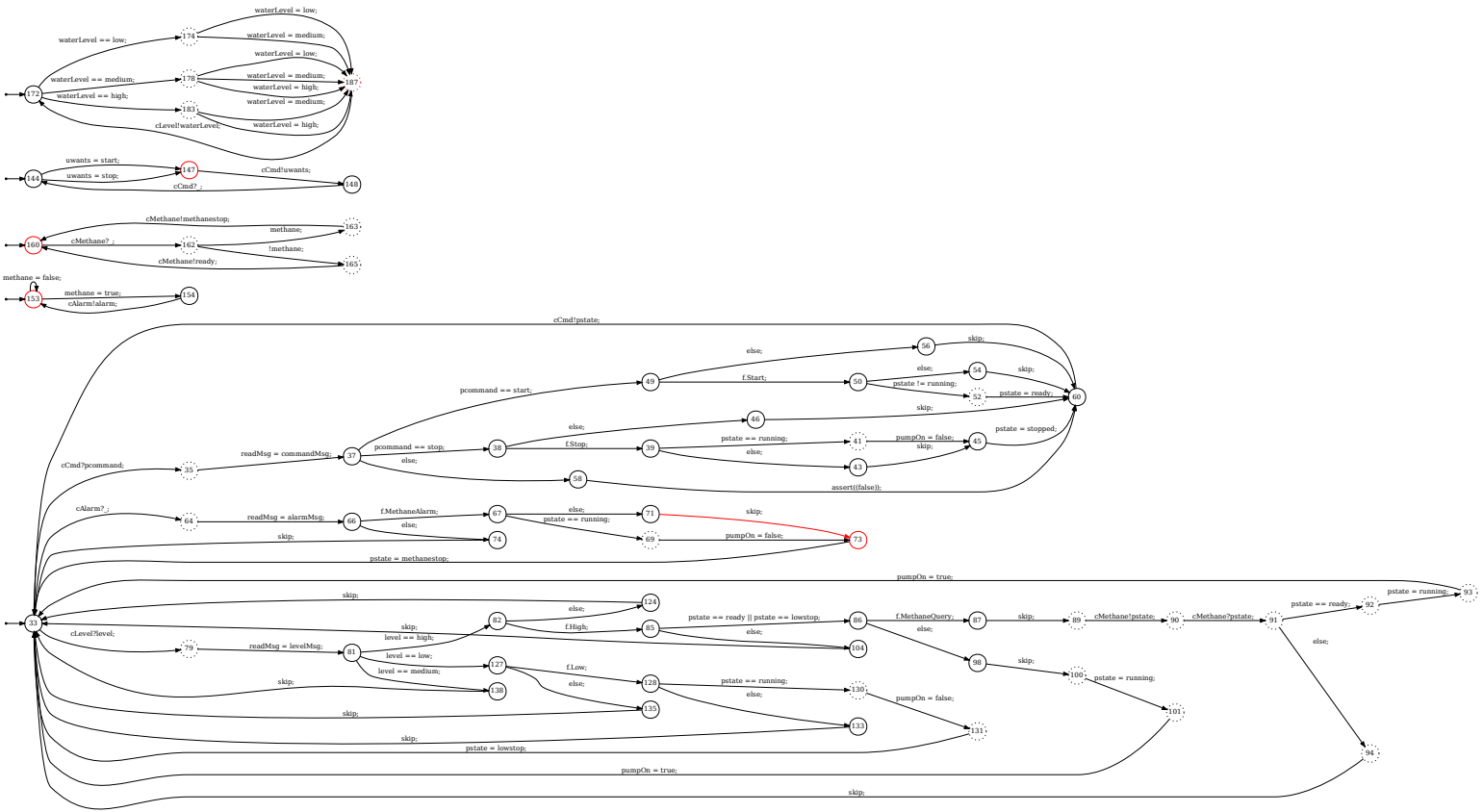
skip;
138
skip;
135
133
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;


172
174
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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
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41
43
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46
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52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
else;
skip;
pcommand == stop;
else;
f.Stop;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
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81
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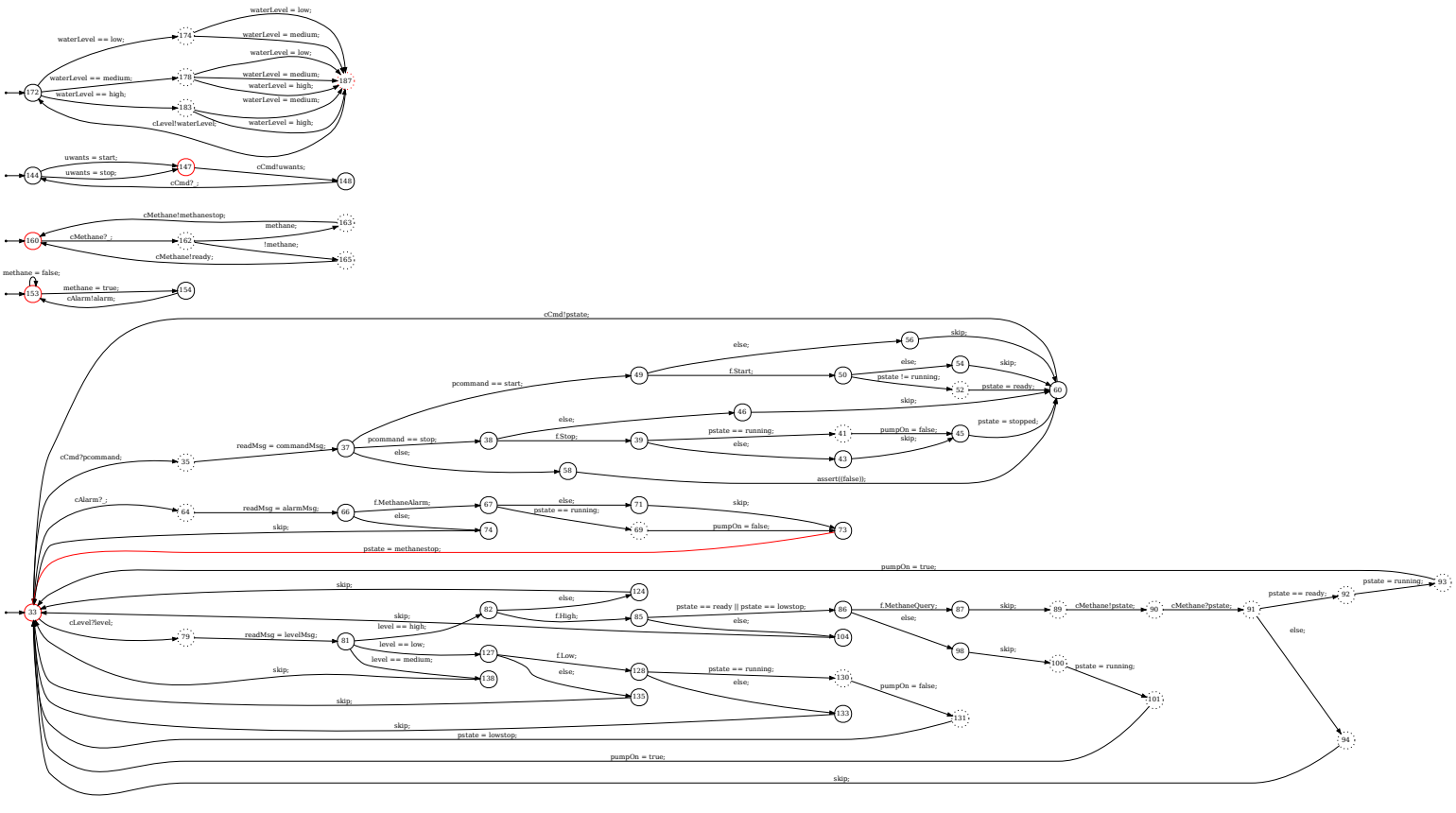
100
101
104
124
127
128
130
131
133
135
138
skip;
else;
f.High;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.Low;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
else;
pstate = running;
skip;
pstate = running;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
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waterLevel = medium;
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waterLevel = high;
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183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
162
cMethane!methanestop;
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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skip;
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pstate = running;
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pstate = lowstop;
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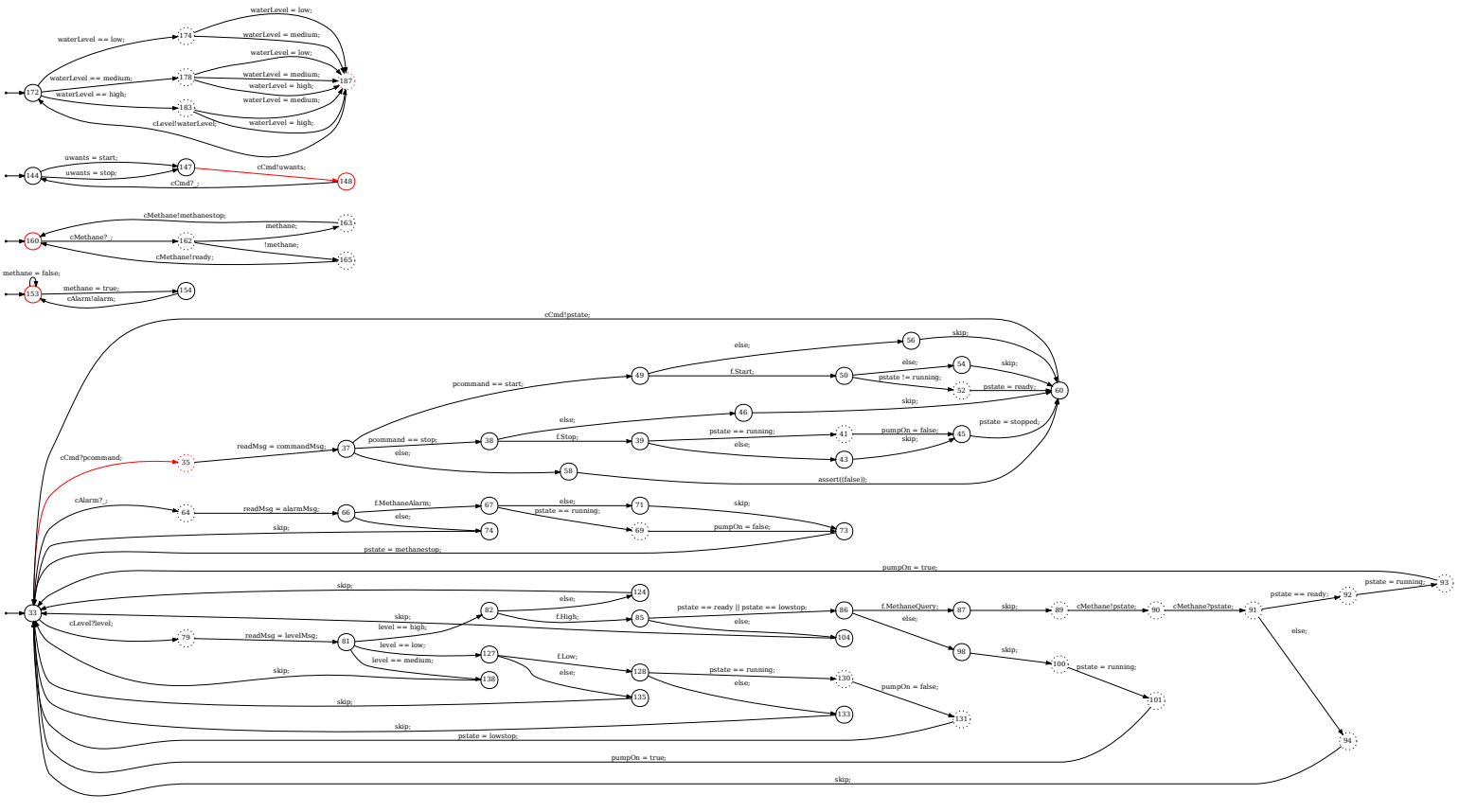
pumpOn = true;
skip;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waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane? ;
cMethane!methanestop;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
cCmd?pcommand;
37
readMsg = commandMsg;
38
39
41
43
45
46
49
50
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54
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58
60
pcommand == start;
else;
f.Start;
skip;
else;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
skip;
else;
pstate = stopped;
else;
assert((false));
64
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
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133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
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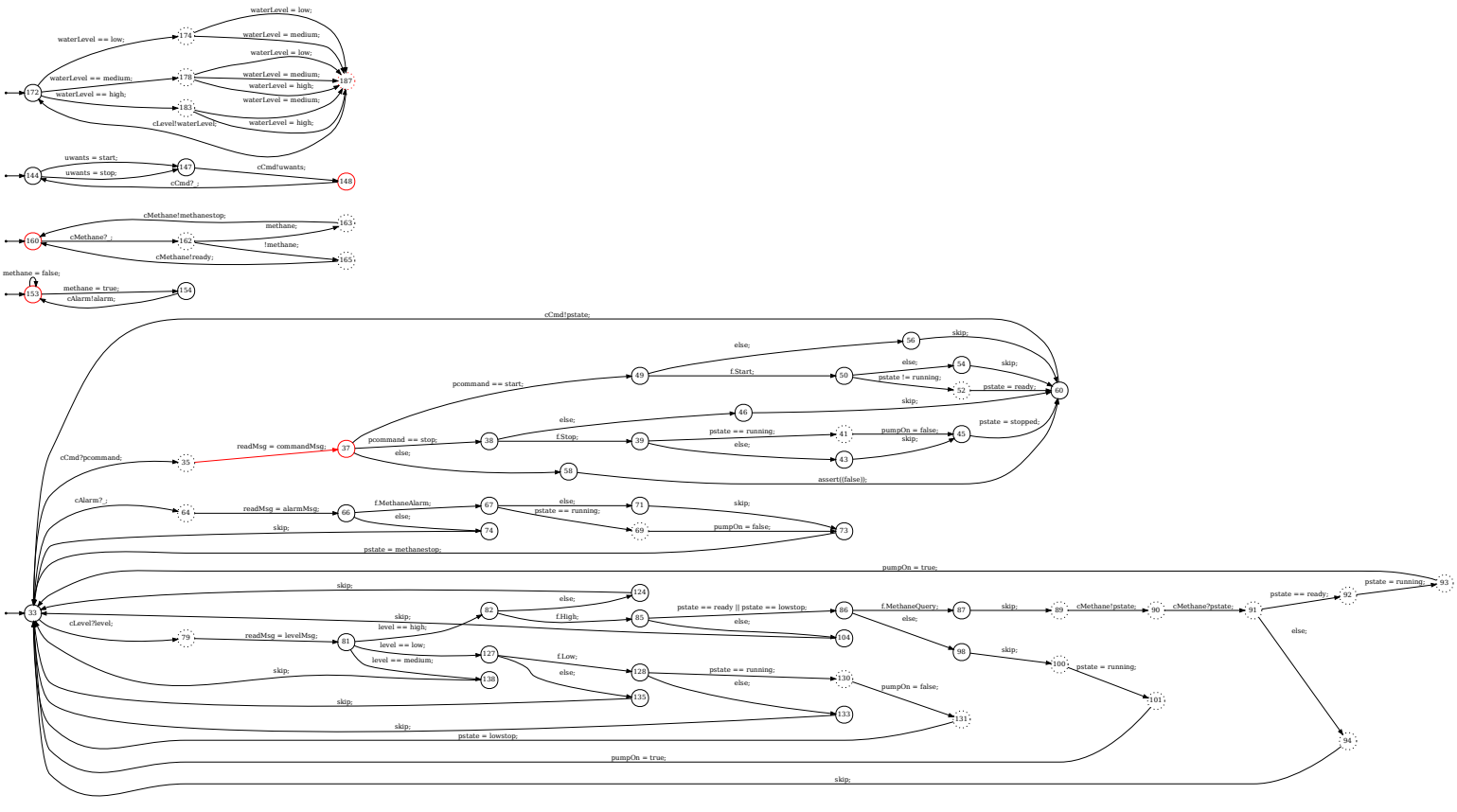
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
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waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
else;
38
39
f.Stop;
pstate == running;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
138
135
133
131
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
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else;
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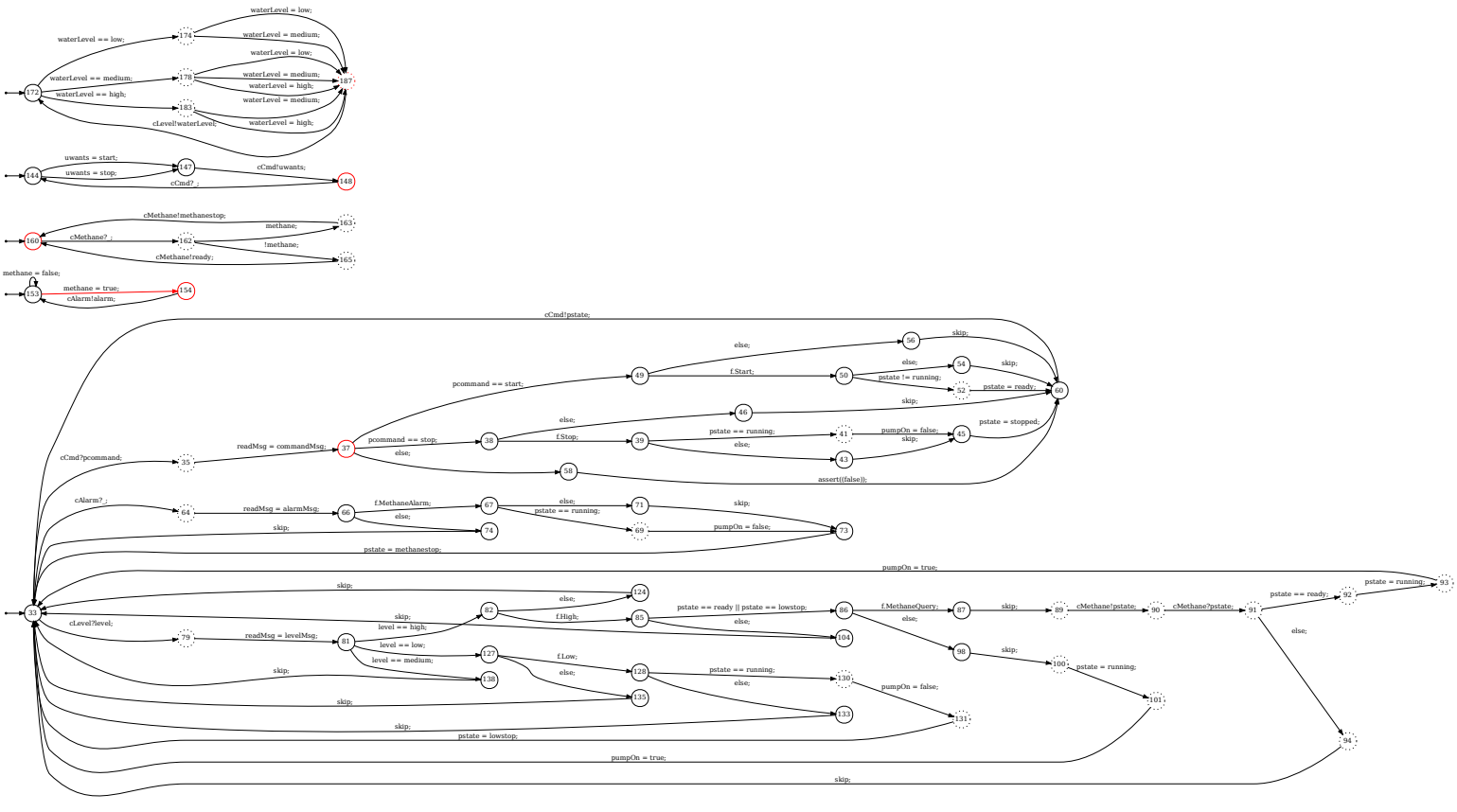
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
f.Start;
skip;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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69
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
79
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101
104
124
127
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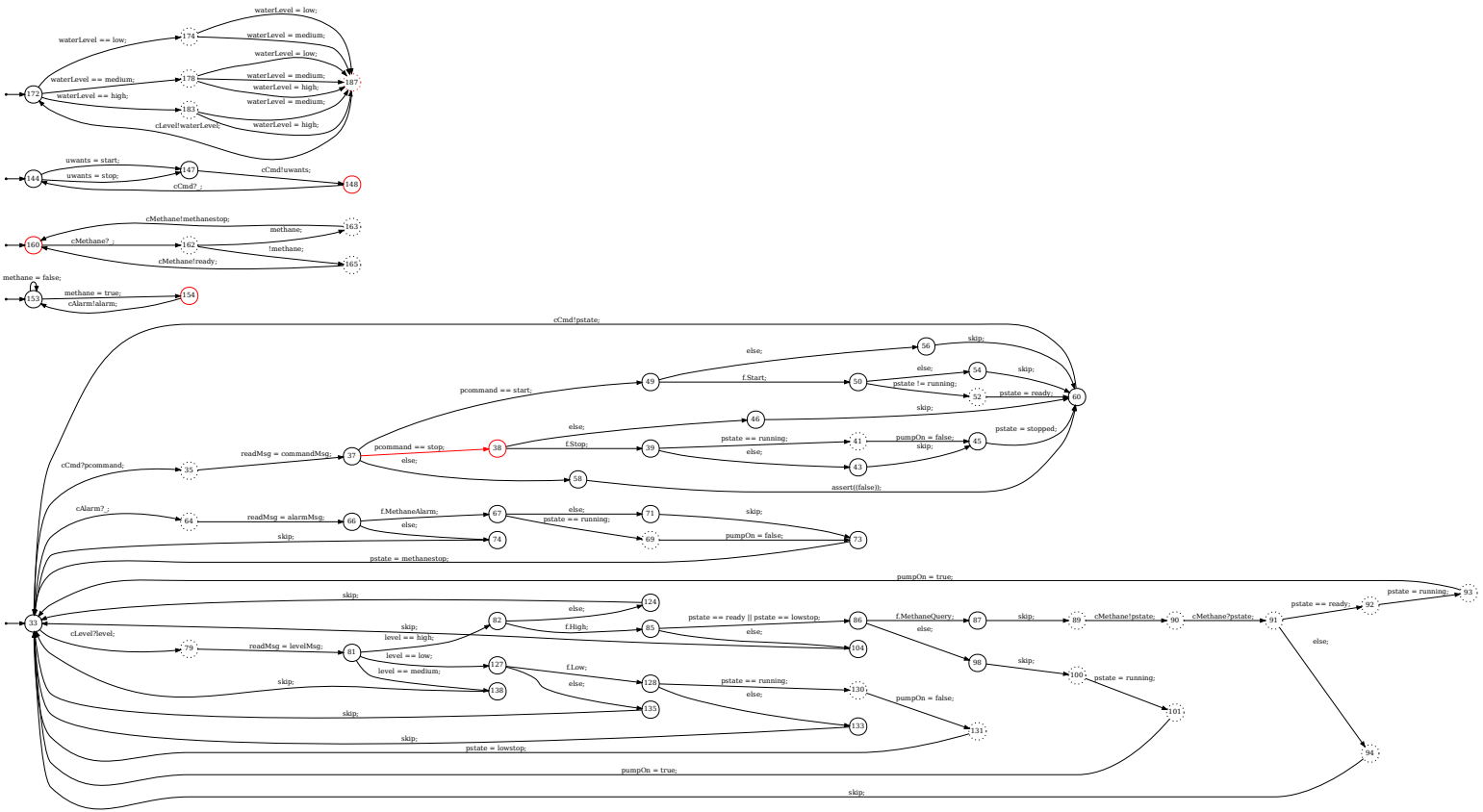
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
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methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
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pstate == running;
else;
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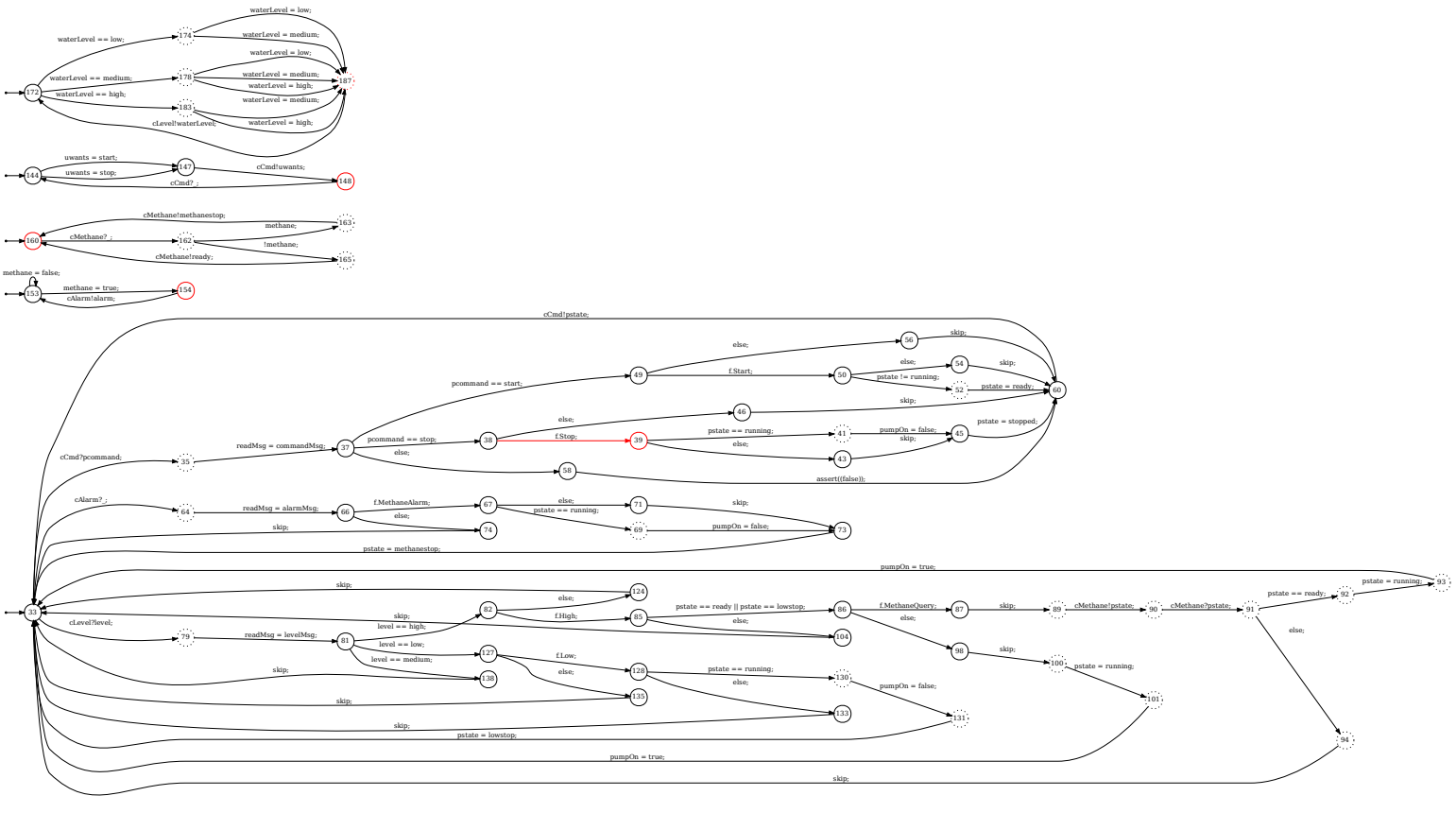
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
pstate == running;
71
skip;
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69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
131
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
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cMethane!pstate;
90
cMethane?pstate;
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else;
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pstate = running;
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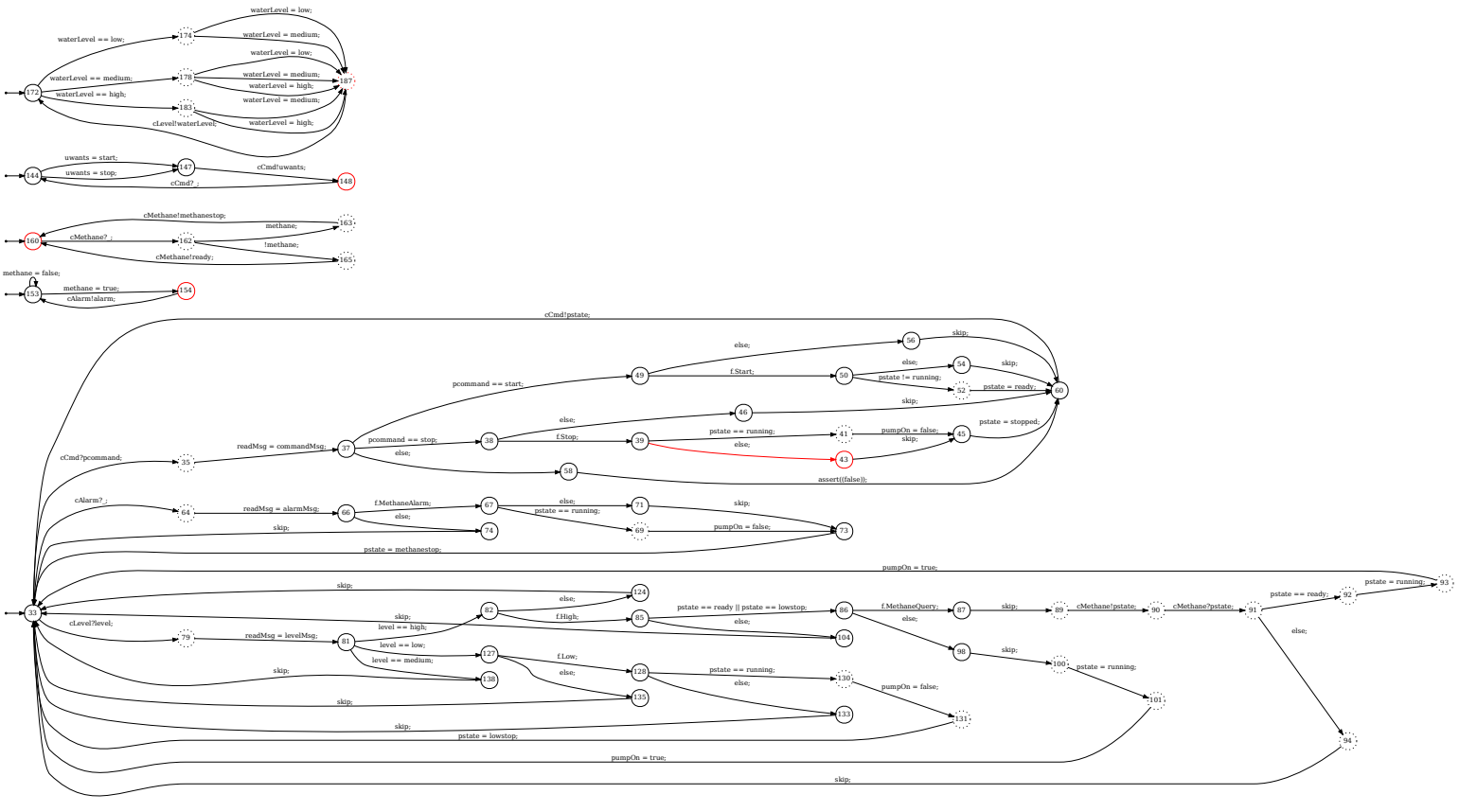
pumpOn = true;
skip;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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
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methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
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58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
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101
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128
130
131
133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
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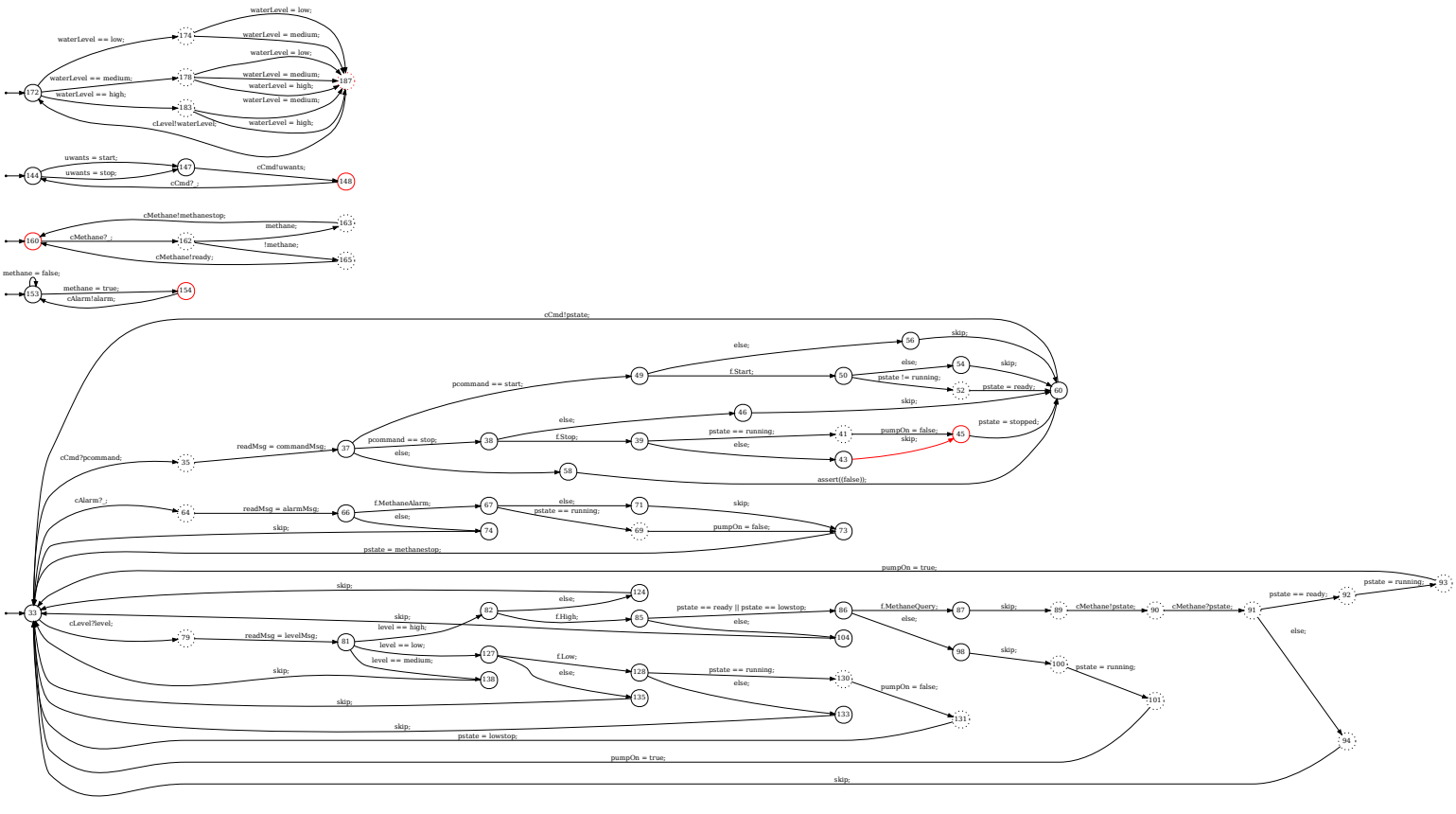
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waterLevel == low;
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waterLevel = medium;
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waterLevel == high;
183
waterLevel = medium;
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187
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uwants = start;
uwants = stop;
147
cCmd!uwants;
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148
160
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cMethane!methanestop;
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methane = true;
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cCmd!pstate;
56
skip;
else;
49
f.Start;
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skip;
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
skip;
else;
43
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58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
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pstate == running;
74
69
pumpOn = false;
73
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pstate = methanestop;
pumpOn = true;
33
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124
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f.High;
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else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
skip;
pstate = lowstop;
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else;
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skip;
pstate = lowstop;
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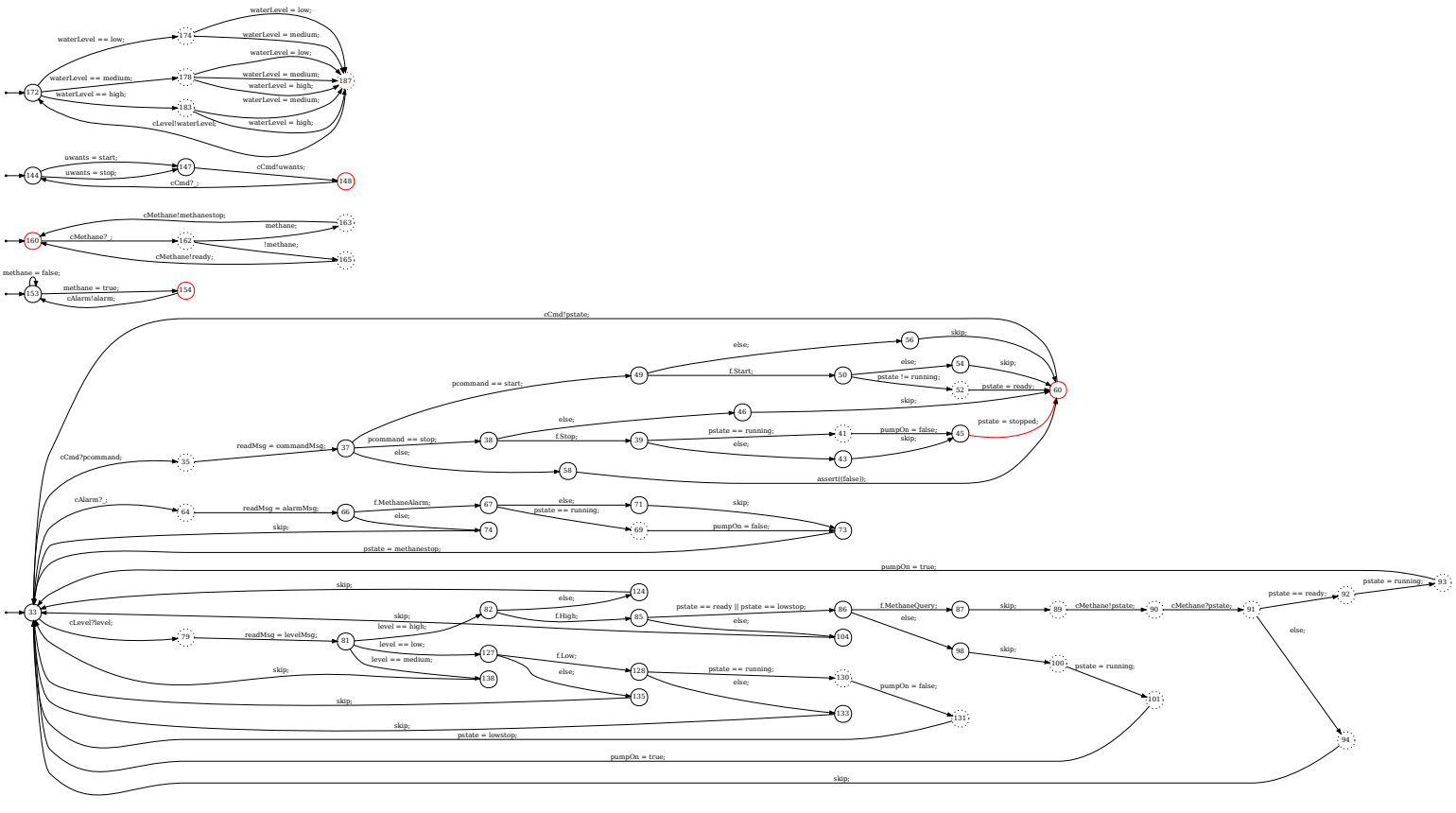
skip;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waterLevel == high;
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waterLevel = medium;
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uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
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pstate == running;
else;
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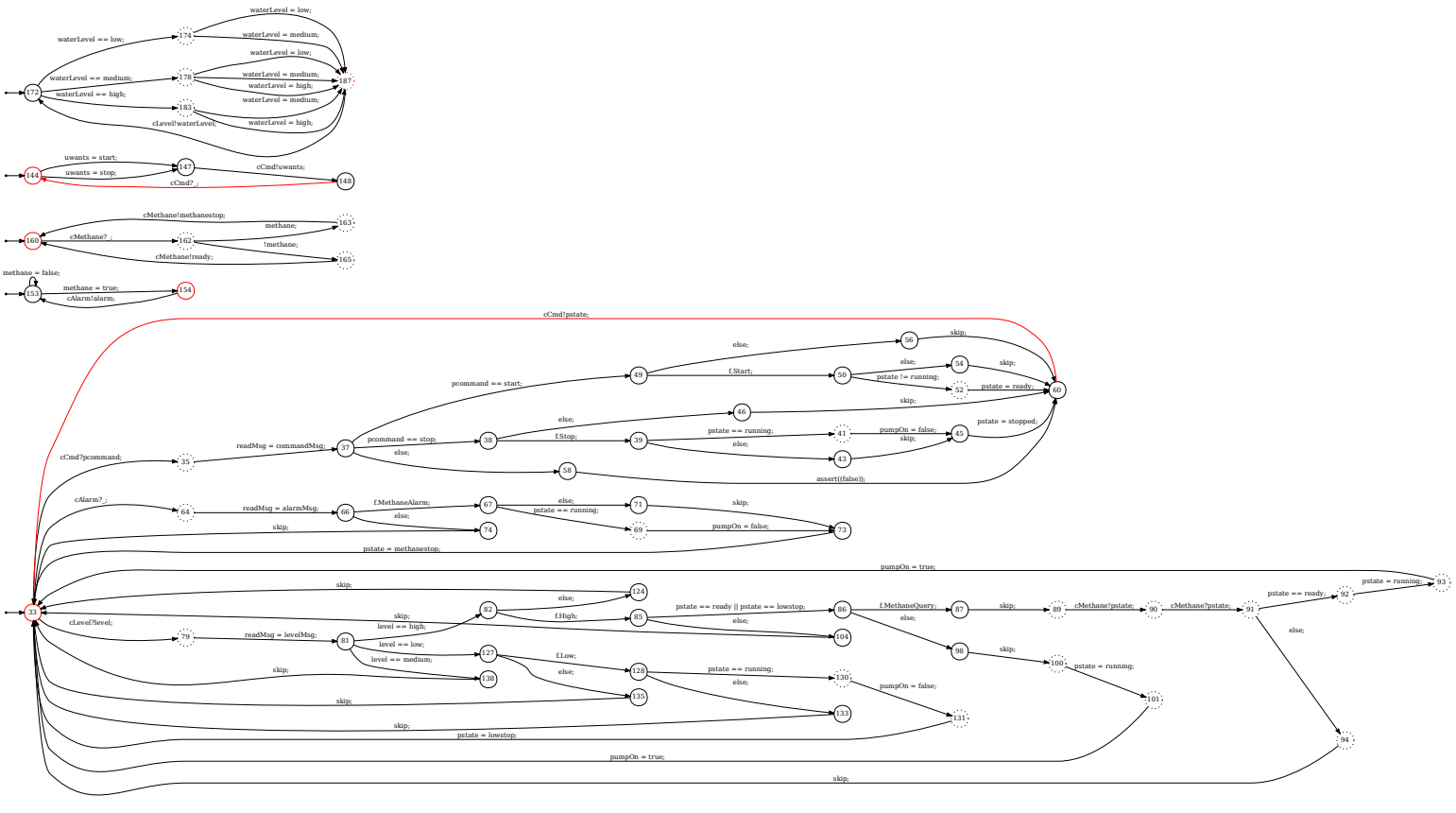
pumpOn = false;
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
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60
pcommand == start;
skip;
46
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38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
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skip;
43
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58
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cCmd?pcommand;
35
readMsg = commandMsg;
37
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64
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66
f.MethaneAlarm;
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67
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71
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74
69
pumpOn = false;
73
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pstate = methanestop;
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33
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124
else;
82
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level == high;
cLevel?level;
79
readMsg = levelMsg;
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level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
93
else;
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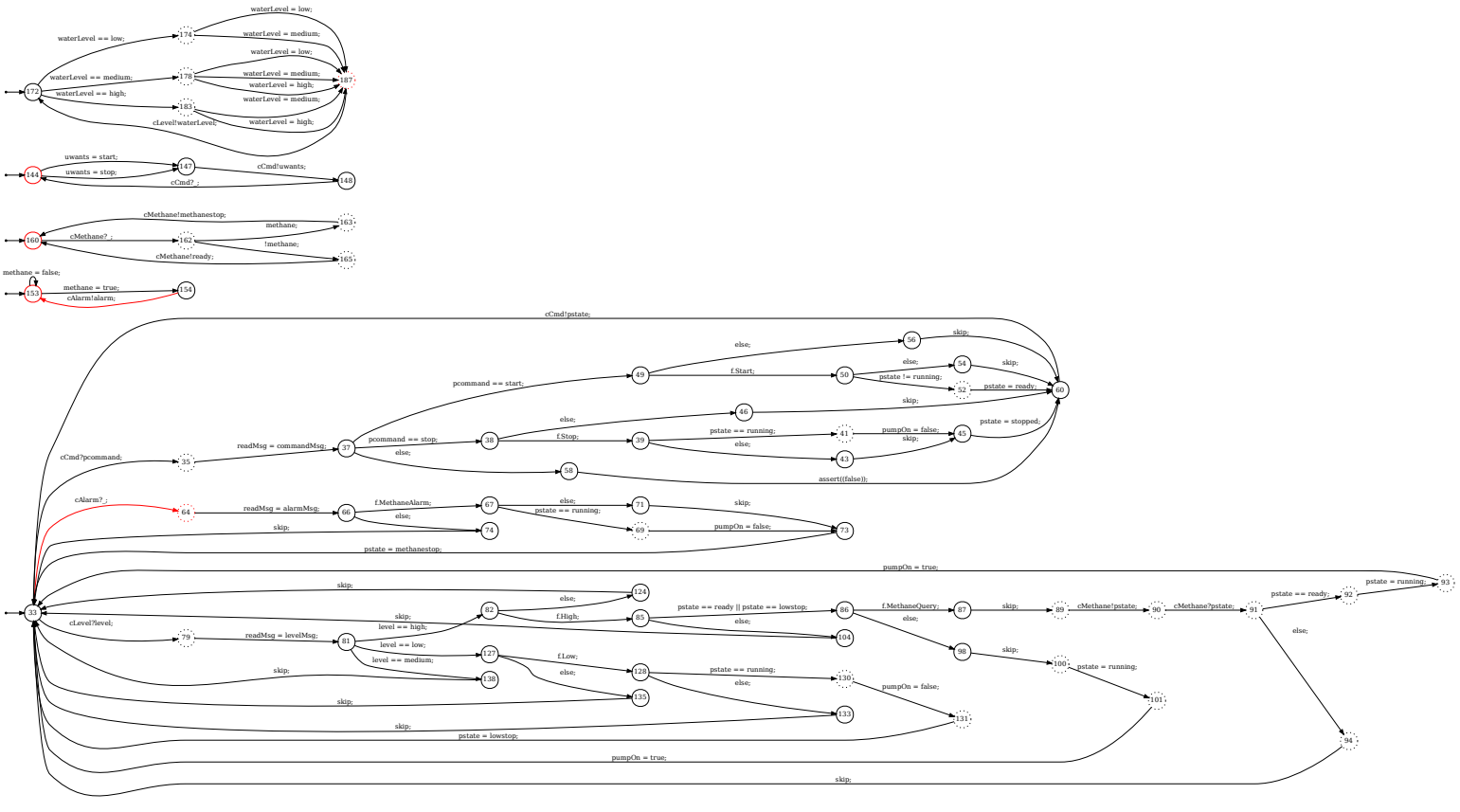
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
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148
160
cMethane!methanestop;
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162
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!methane;
163
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else;
54
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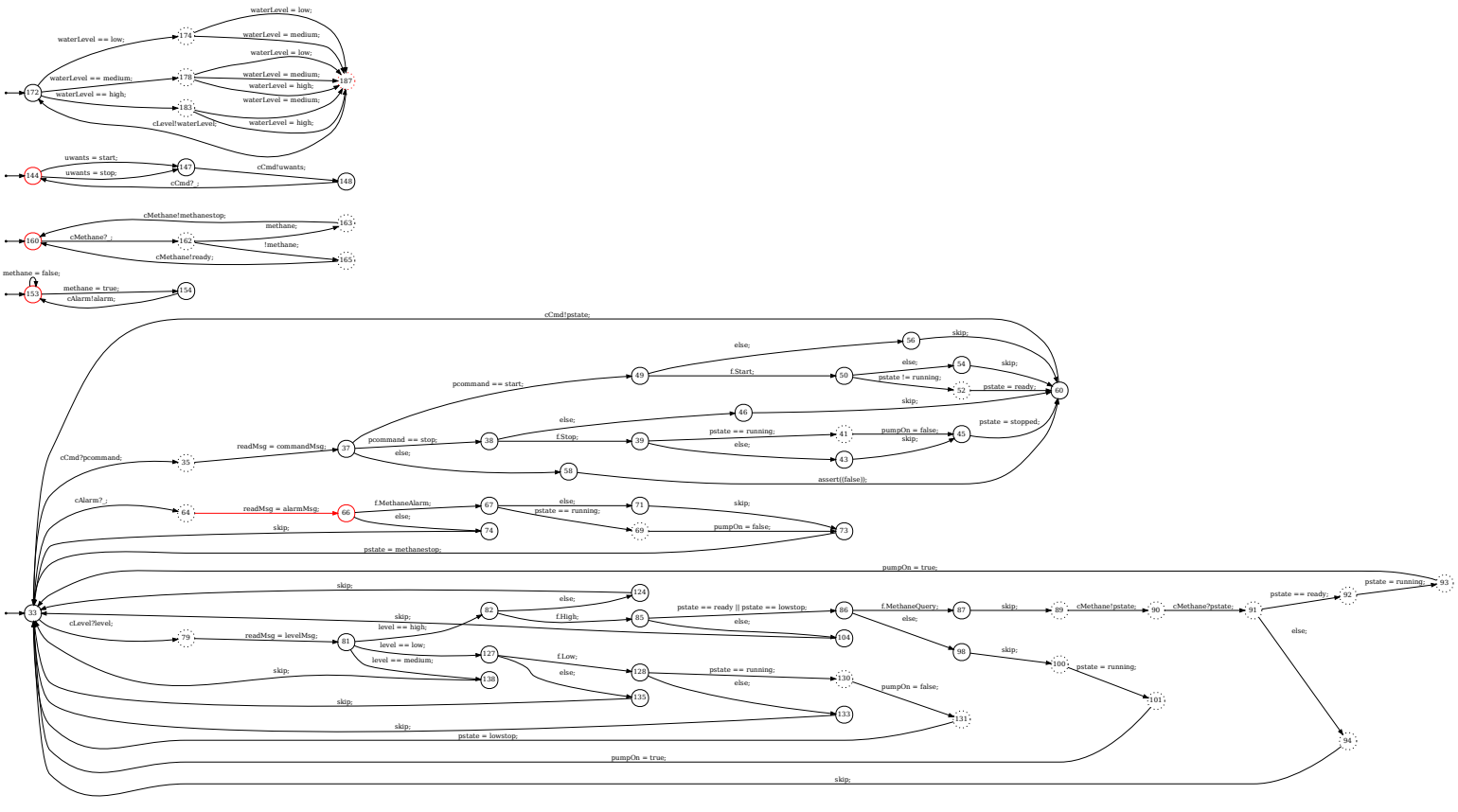
skip;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187
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f.Start;
pcommand == start;
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f.Stop;
pstate == running;
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pumpOn = false;
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pstate = stopped;
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pcommand == stop;
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133
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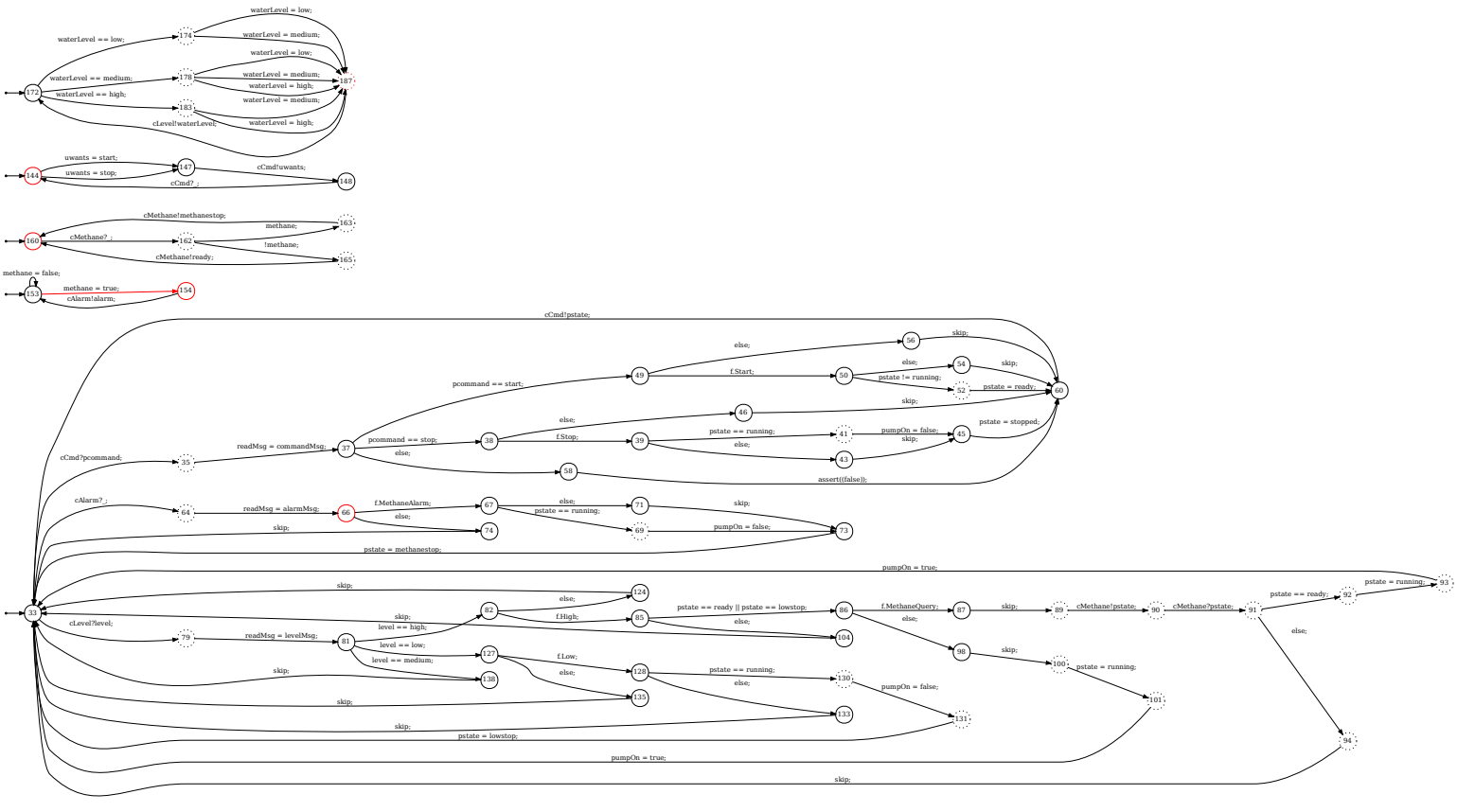
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waterLevel == low;
waterLevel = low;
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waterLevel = medium;
waterLevel = high;
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144
147
148
uwants = start;
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cCmd? ;
160
162
163
165
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cMethane? ;
methane;
!methane;
cMethane!ready;
153
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methane = true;
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cCmd!pstate;
56
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pstate != running;
pstate = ready;
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pstate = stopped;
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pstate == running;
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readMsg = commandMsg;
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readMsg = alarmMsg;
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pstate = lowstop;
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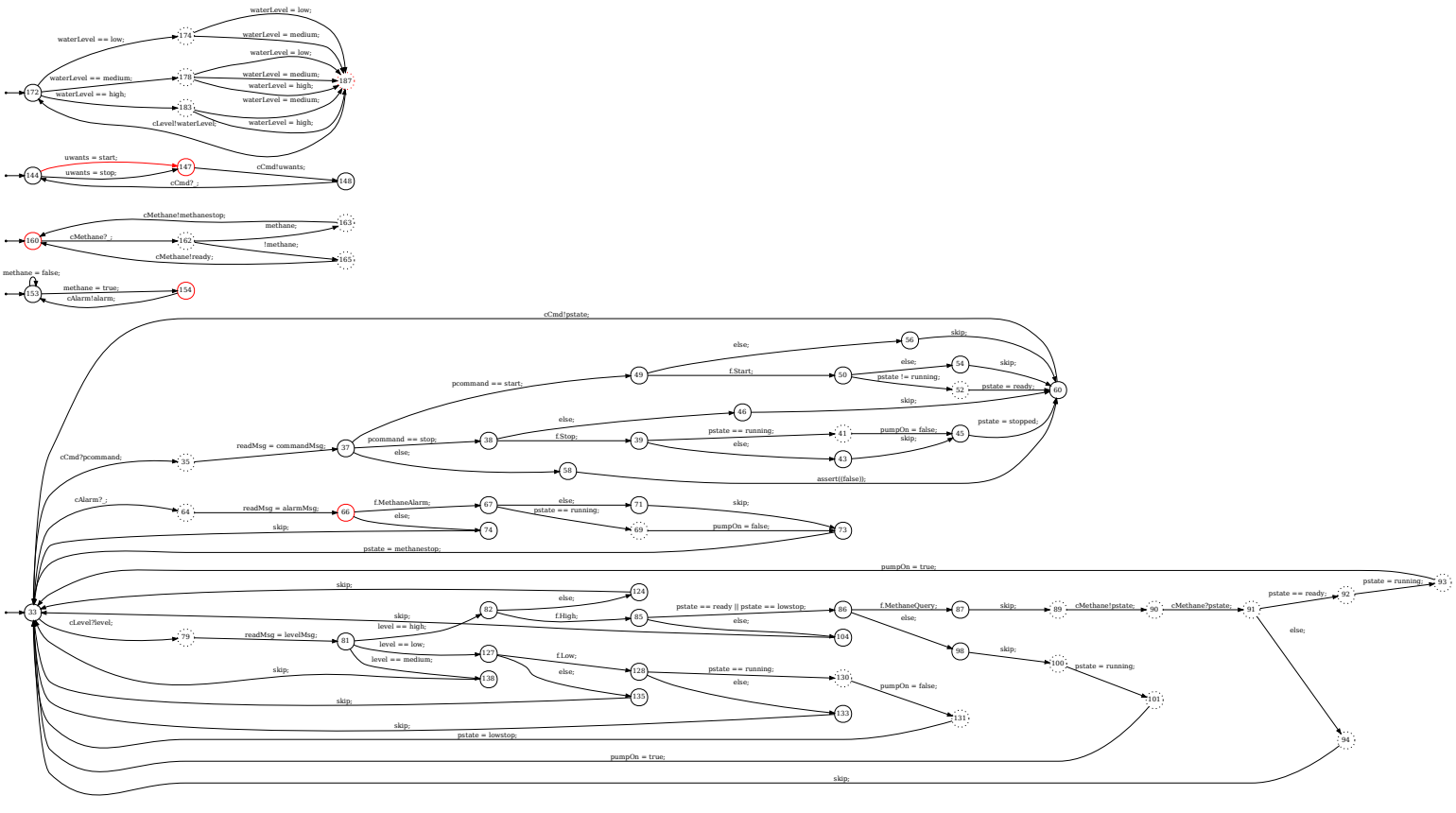
skip;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waterLevel == low;
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waterLevel = low;
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waterLevel == medium;
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waterLevel = medium;
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waterLevel = high;
waterLevel == high;
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waterLevel = medium;
waterLevel = high;
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cCmd?pcommand;
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readMsg = commandMsg;
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f.MethaneAlarm;
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level == low;
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pstate == ready || pstate == lowstop;
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else;
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pstate = running;
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pstate = lowstop;
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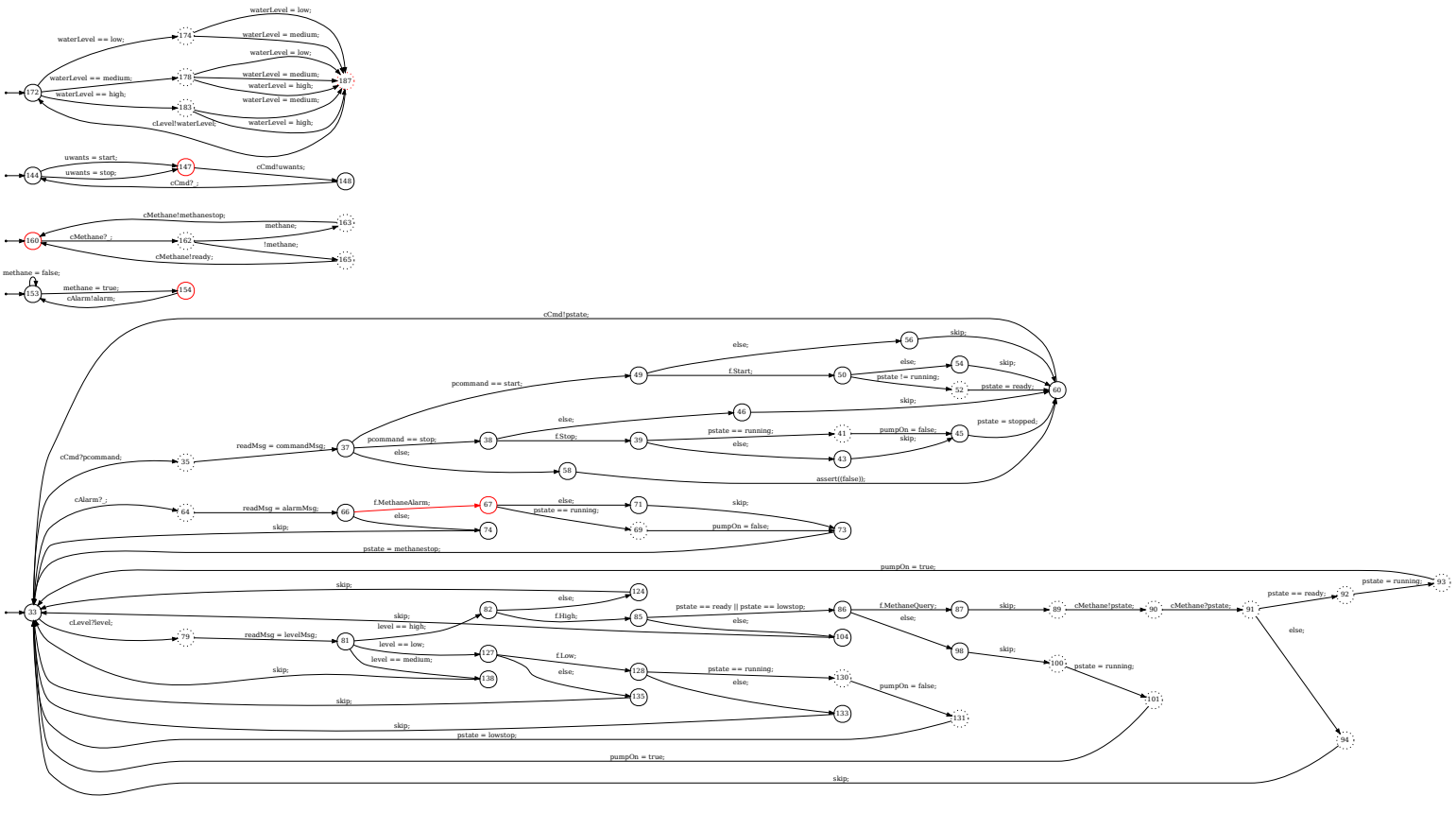
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
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else;
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pstate == running;
pumpOn = false;
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pstate = stopped;
skip;
else;
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else;
38
f.Stop;
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assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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skip;
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69
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79
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81
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level == high;
level == low;
level == medium;
127
f.Low;
else;
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133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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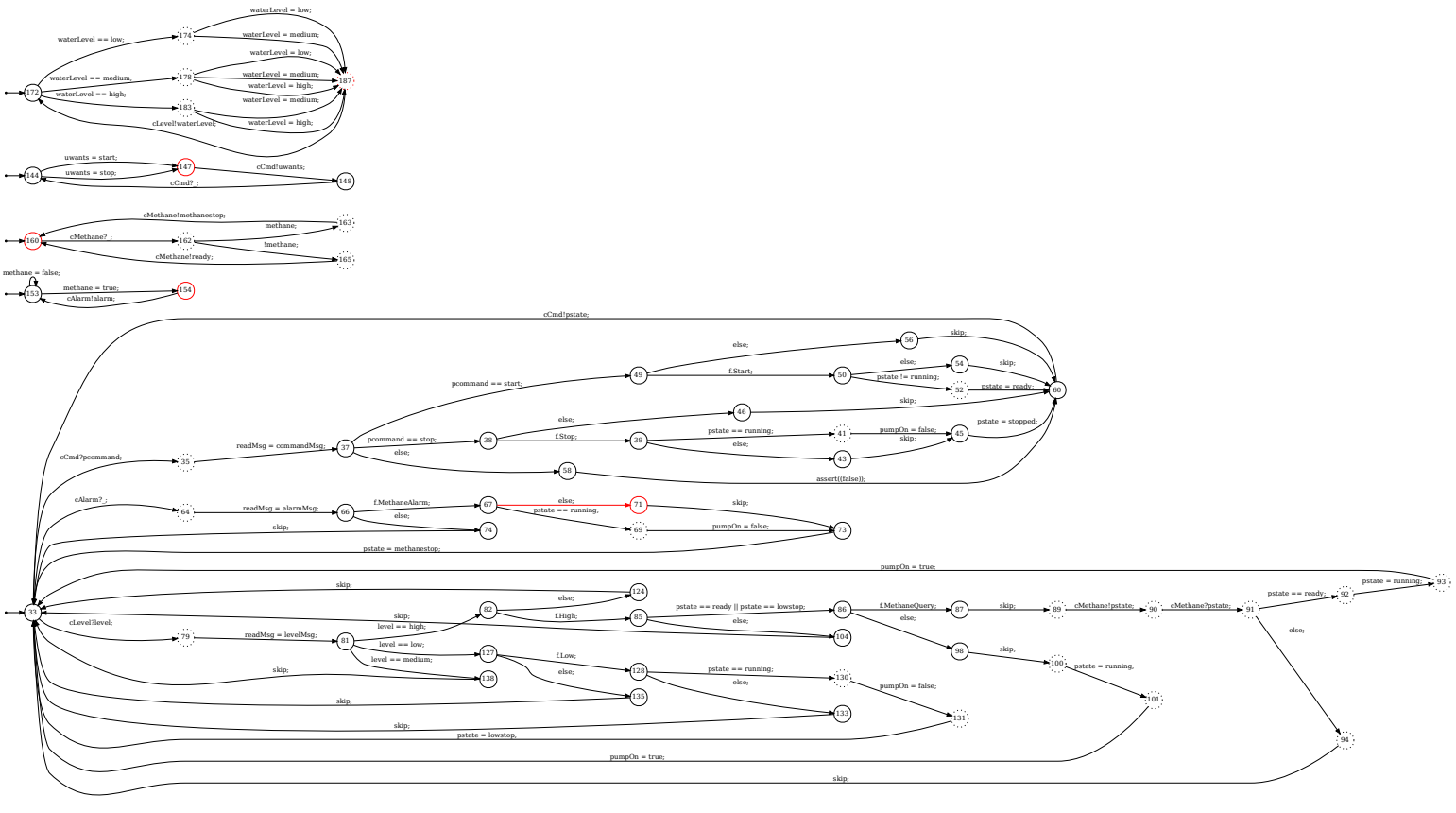
skip;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waterLevel = medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
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154
methane = false;
methane = true;
cAlarm!alarm;
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cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
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level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
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cMethane?pstate;
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pstate = running;
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level == low;
level == medium;
f.Low;
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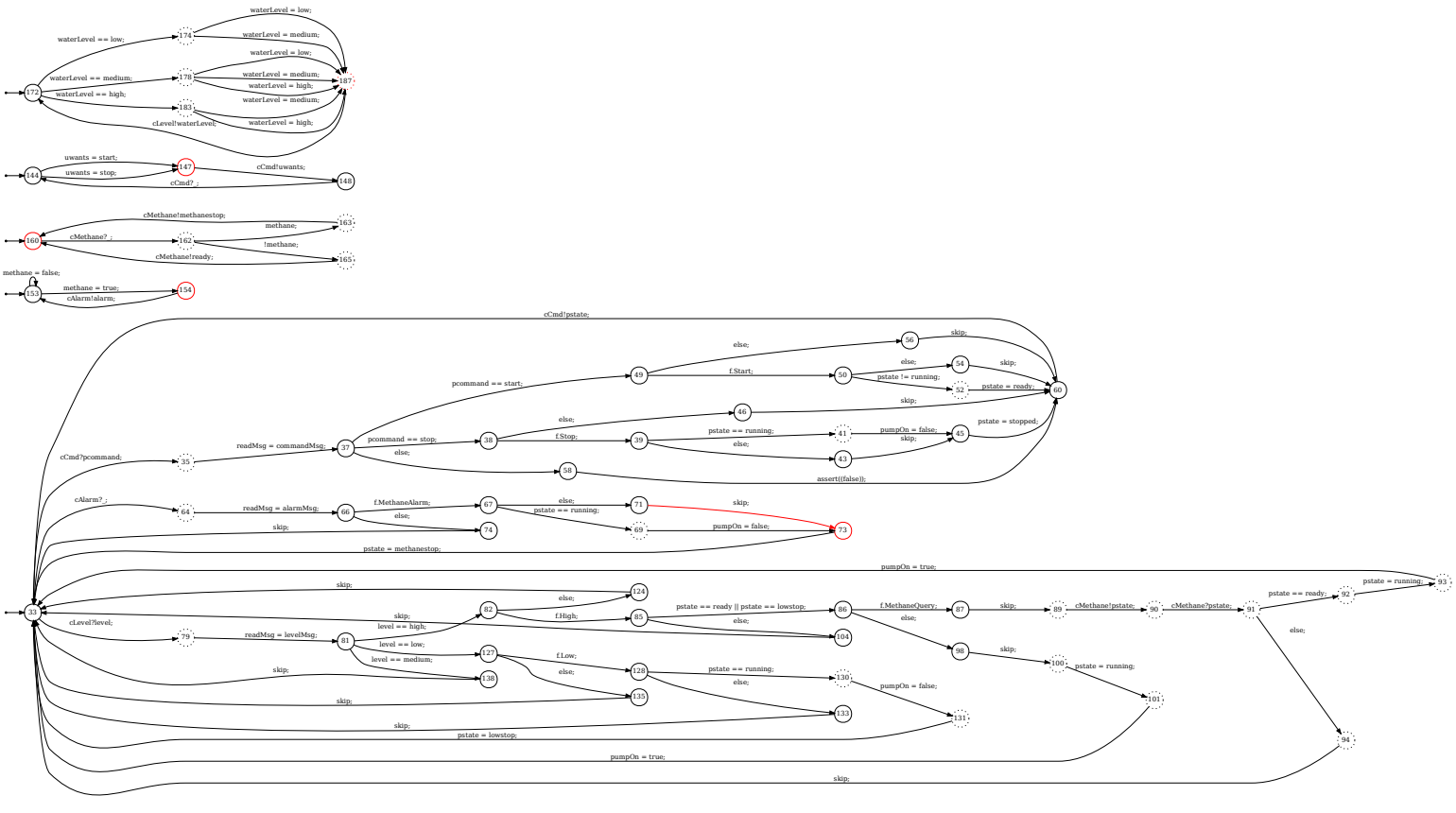
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cCmd?pcommand;
readMsg = commandMsg;
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f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
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cAlarm? ;
readMsg = alarmMsg;
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pstate == running;
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pstate = methanestop;
pumpOn = true;
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cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
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f.Low;
pstate == ready || pstate == lowstop;
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pstate = ready;
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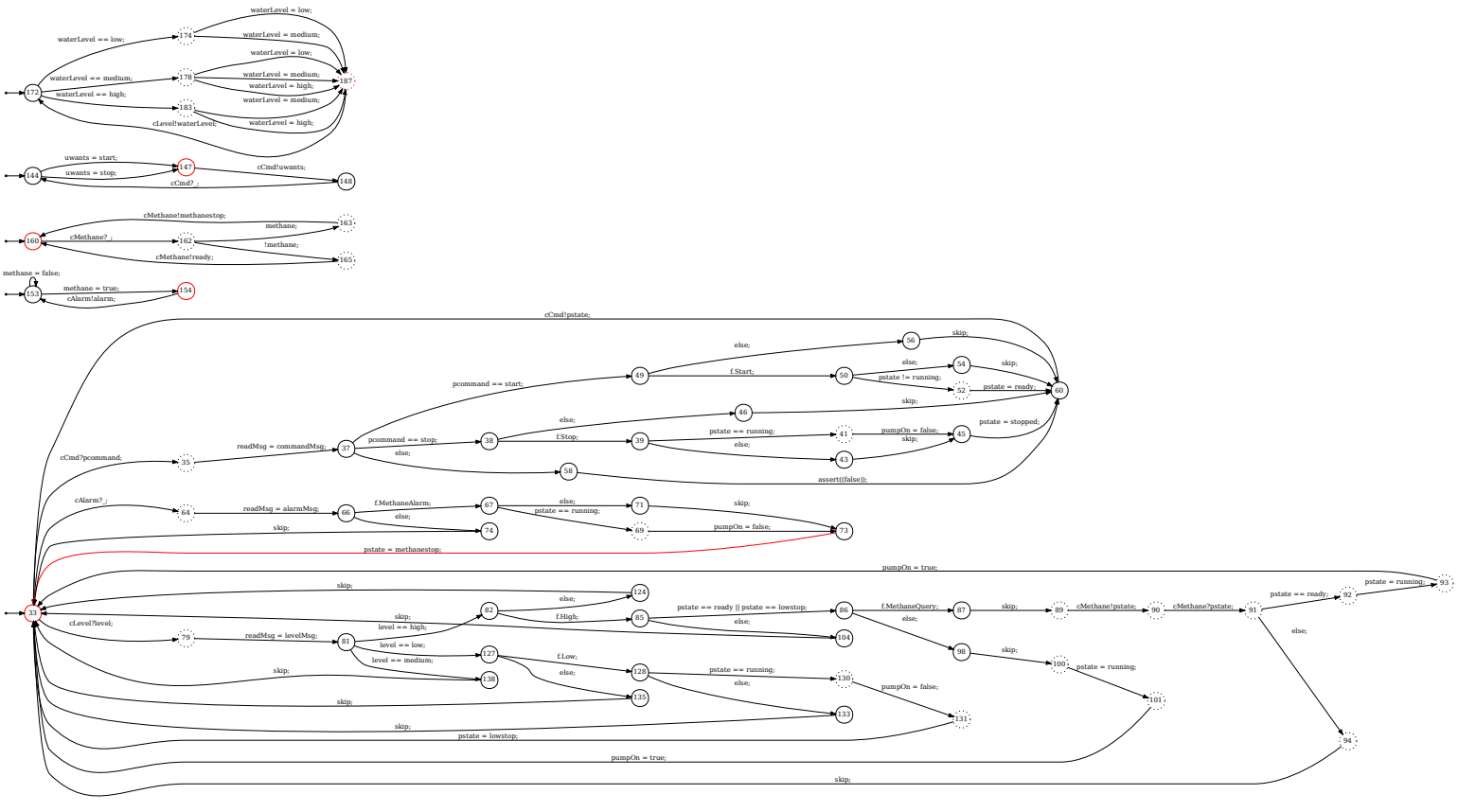
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pcommand == start;
skip;
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38
f.Stop;
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pstate == running;
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pstate = stopped;
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else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
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else;
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skip;
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skip;
pstate = lowstop;
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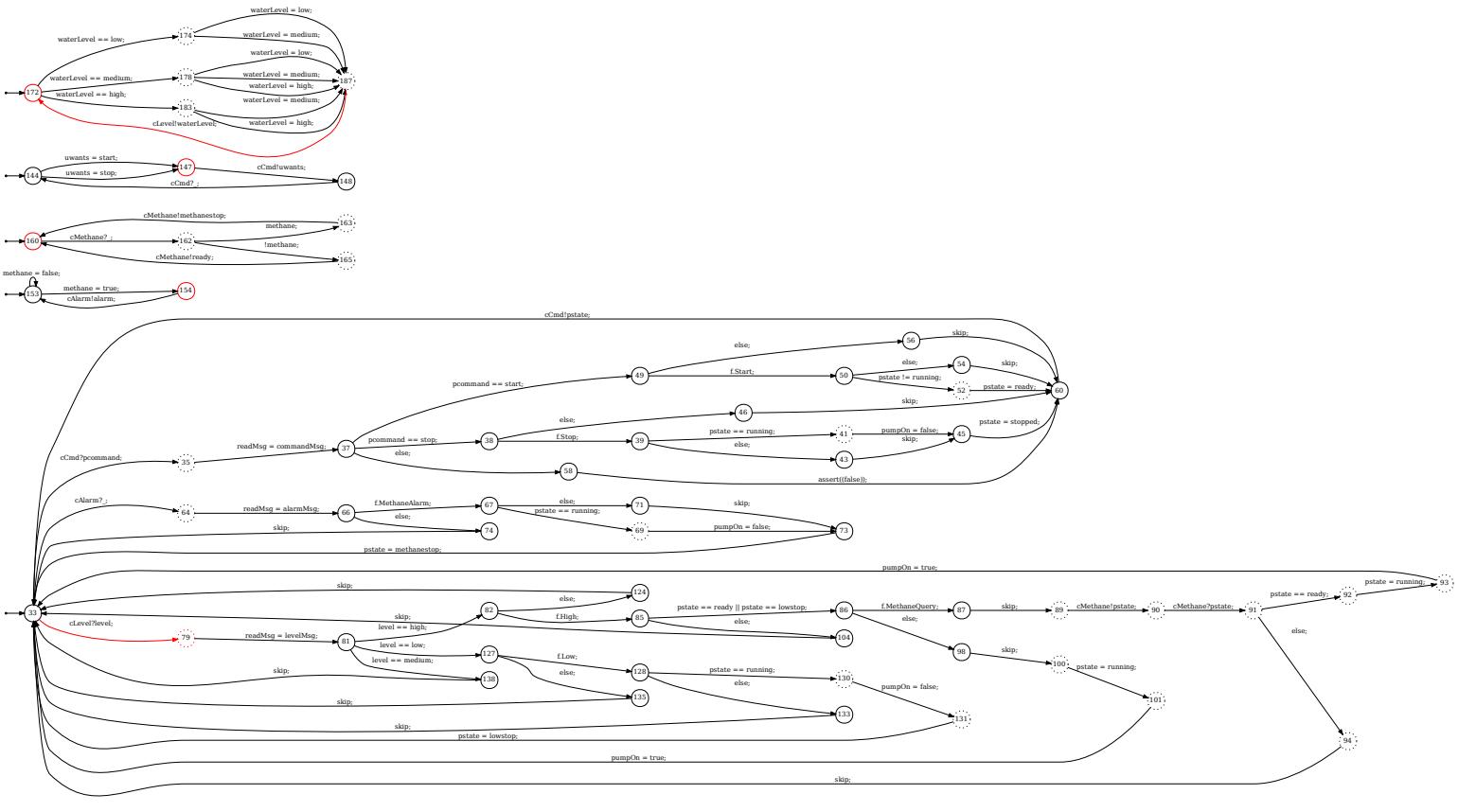
pumpOn = true;
skip;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waterLevel == low;
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waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
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pstate == running;
74
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73
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pumpOn = false;
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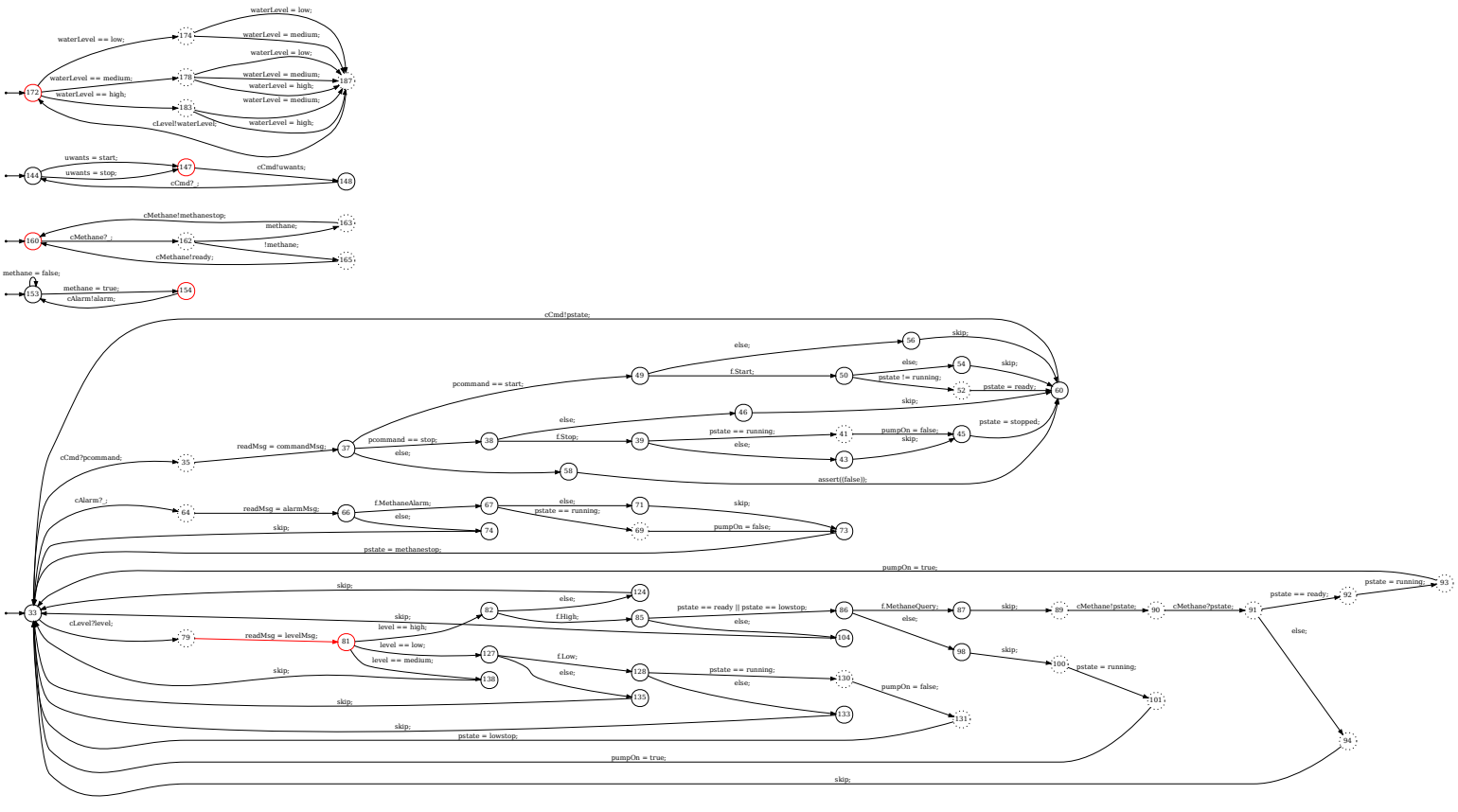
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160
162
163
165
cMethane!methanestop;
cMethane? ;
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!methane;
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153
154
methane = false;
methane = true;
cAlarm!alarm;
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54
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49
f.Start;
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pstate == running;
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39
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cCmd?pcommand;
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readMsg = commandMsg;
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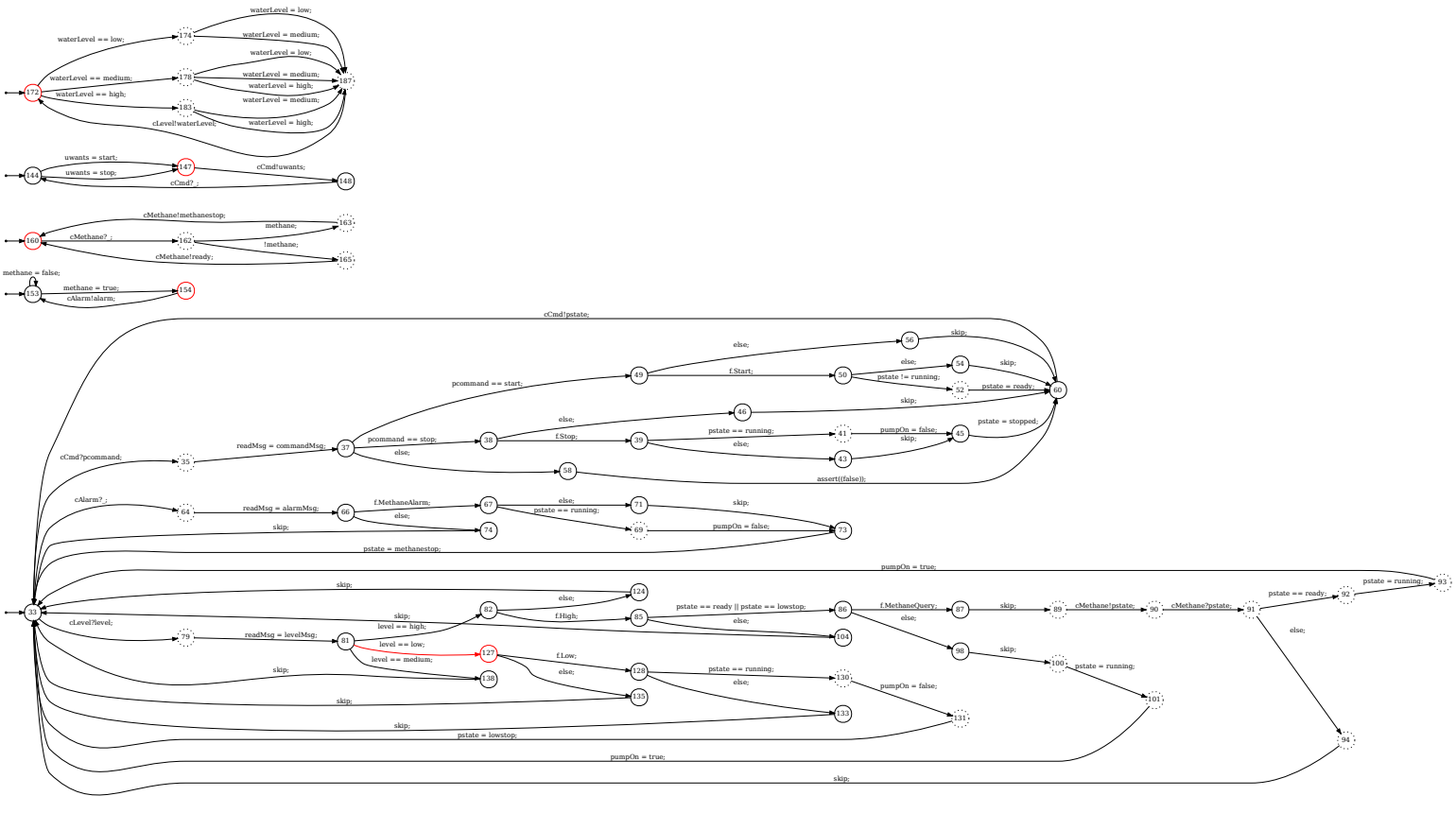
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waterLevel == high;
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waterLevel = medium;
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waterLevel = high;
uwants = start;
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cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
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methane = false;
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methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
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skip;
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f.Start;
50
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pstate == running;
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pstate = stopped;
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skip;
else;
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cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
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100
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101
skip;
138
f.Low;
else;
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skip;
pstate = lowstop;
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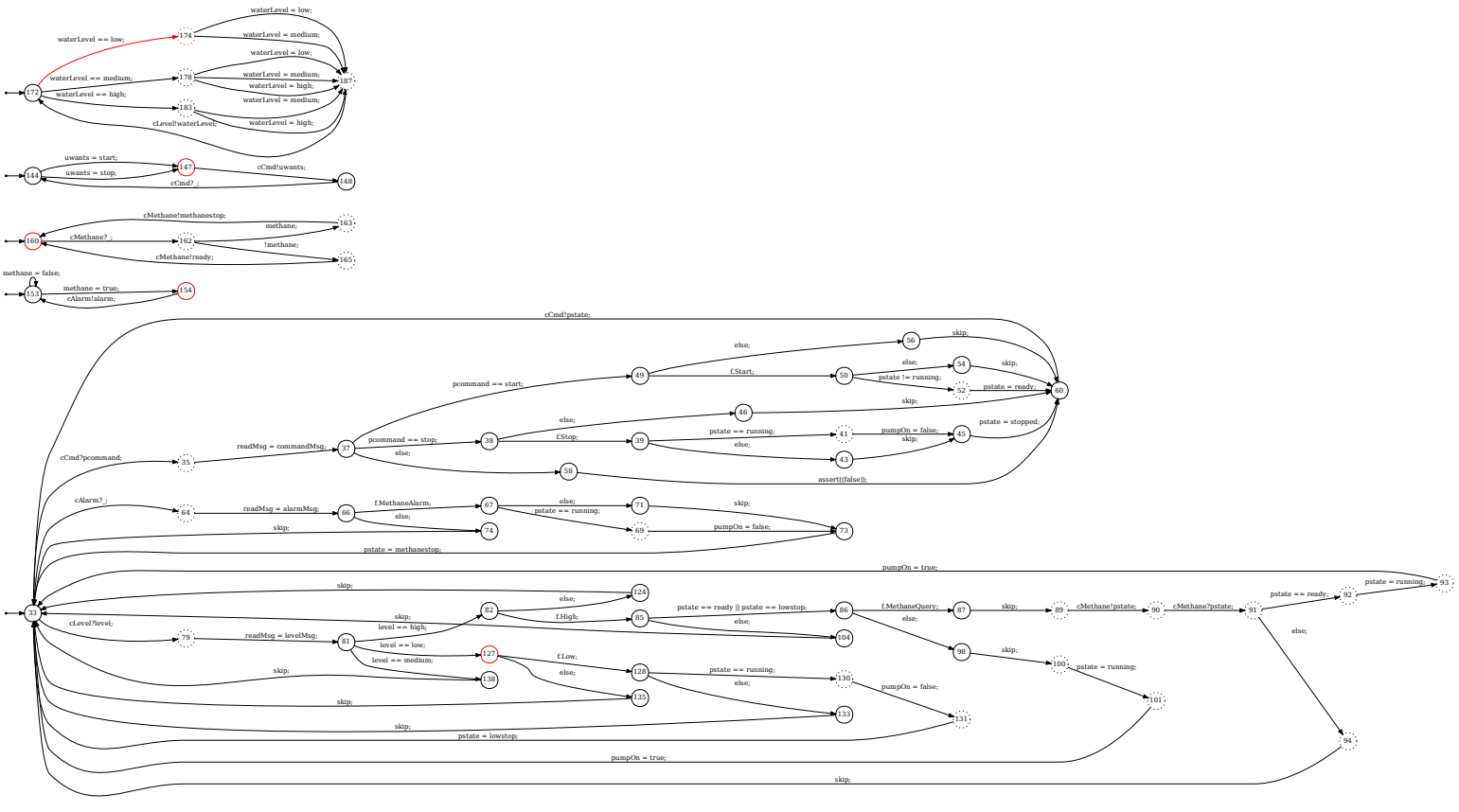
skip;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waterLevel = medium;
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cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
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methane;
!methane;
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cMethane!ready;
165
methane = false;
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methane = true;
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skip;
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f.Start;
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f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
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else;
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cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
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64
readMsg = alarmMsg;
66
f.MethaneAlarm;
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pstate == running;
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135
skip;
skip;
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pstate = lowstop;
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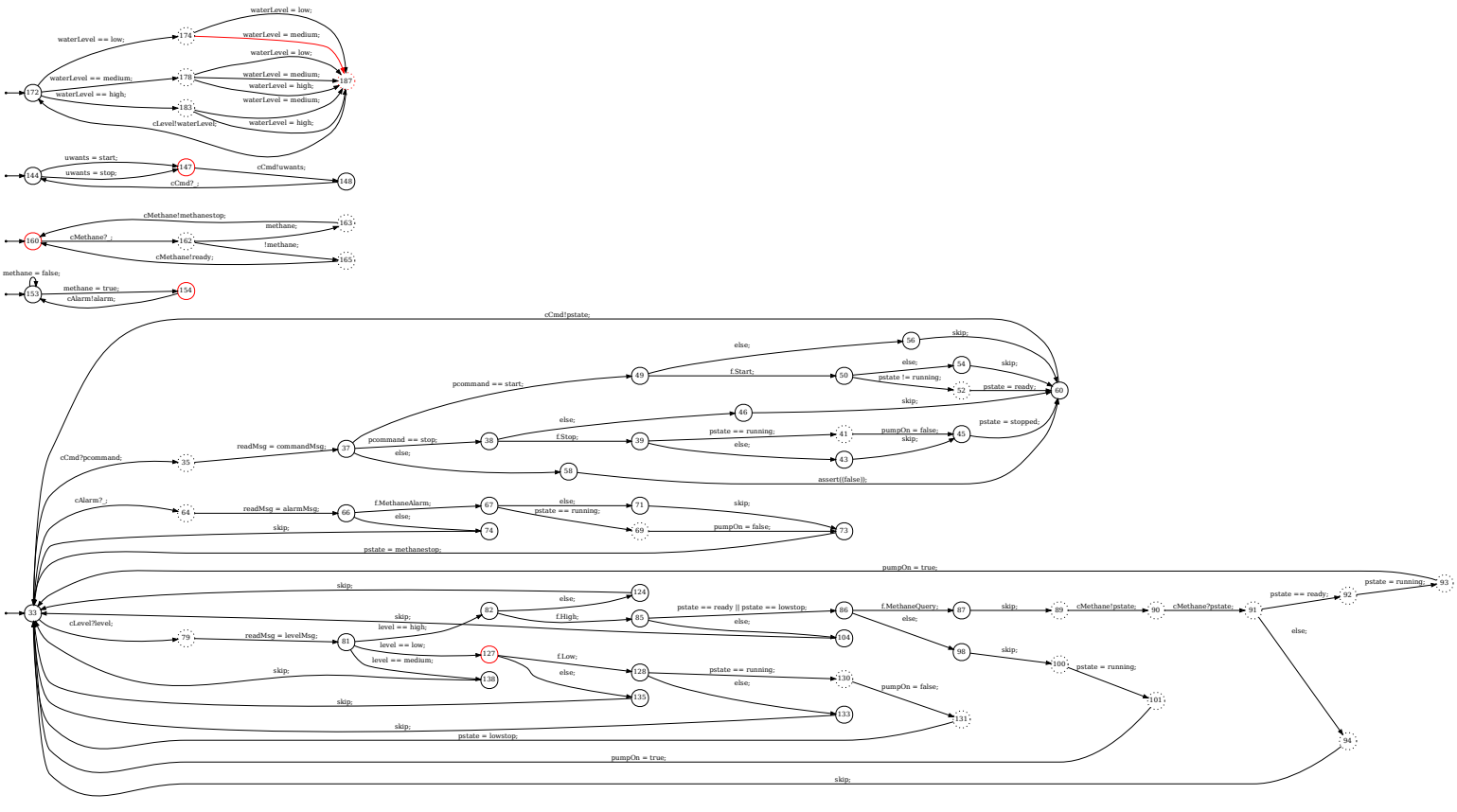
pumpOn = true;
skip;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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd? ;
cCmd!uwants;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
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37
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45
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50
52
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58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
79
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133
135
138
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
else;
f.High;
else;
f.Low;
else;
pstate == ready || pstate == lowstop;
else;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
else;
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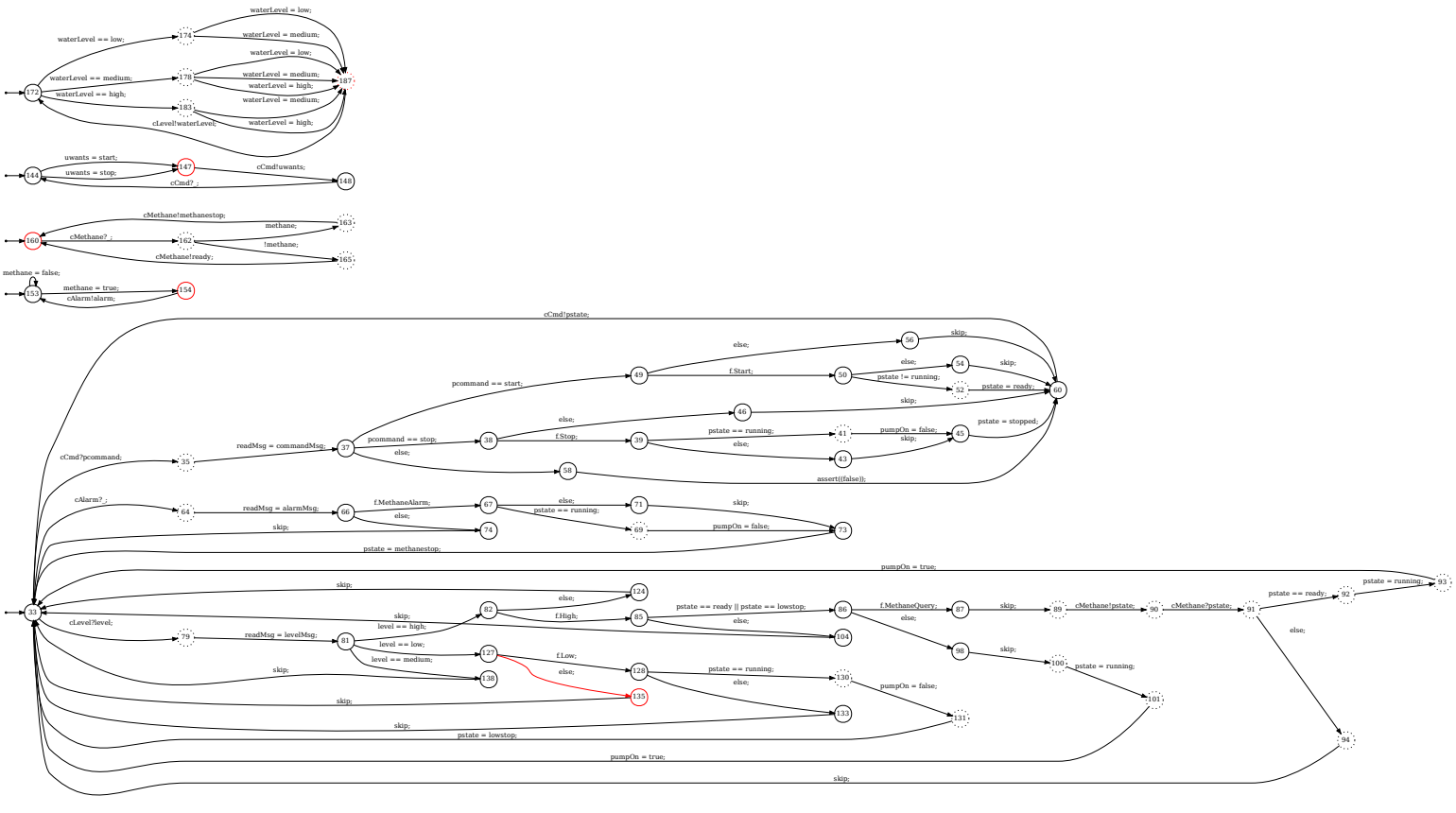
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
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160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
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154
methane = false;
methane = true;
cAlarm!alarm;
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56
skip;
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49
50
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f.Start;
pcommand == start;
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else;
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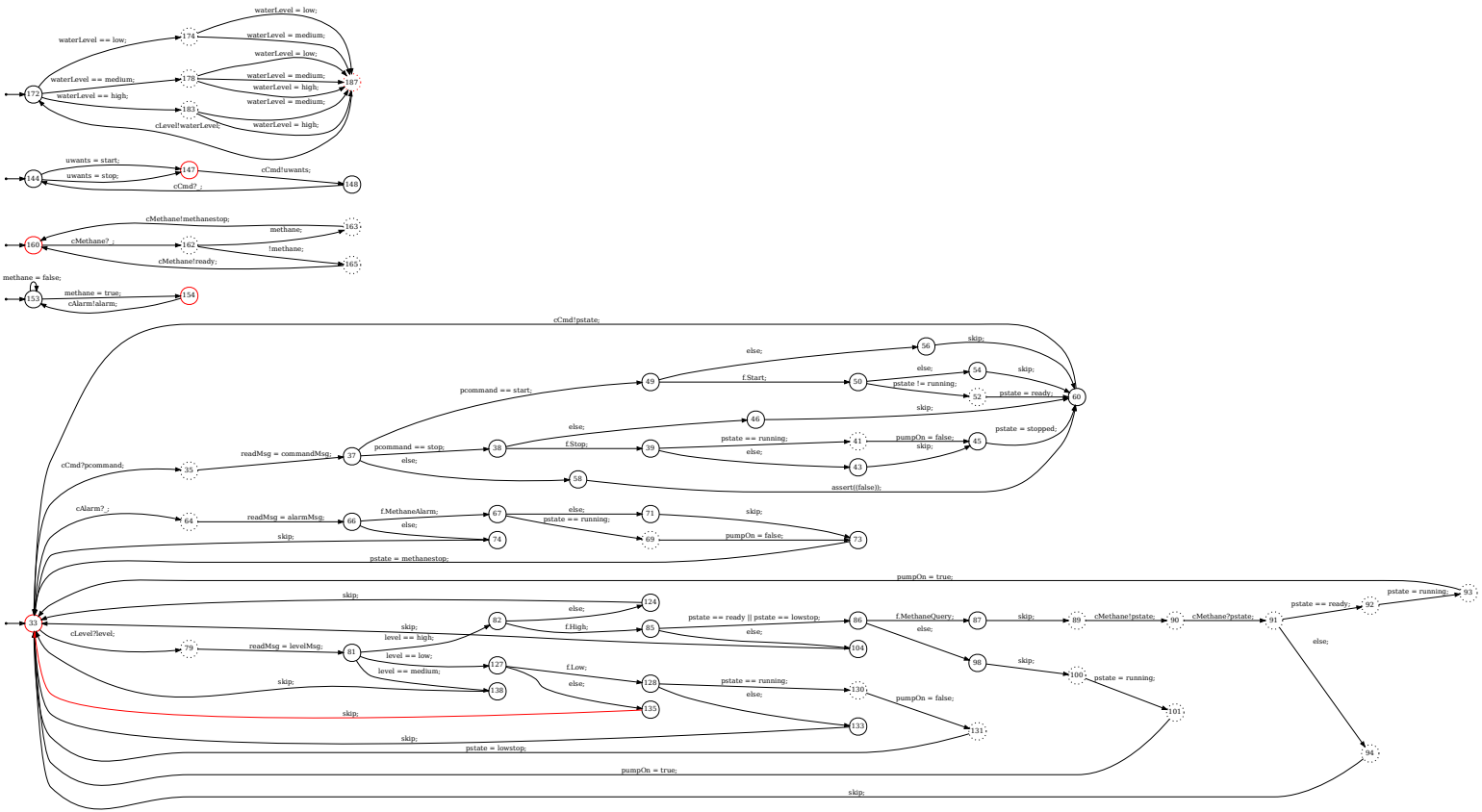
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waterLevel == low;
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pstate = stopped;
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38
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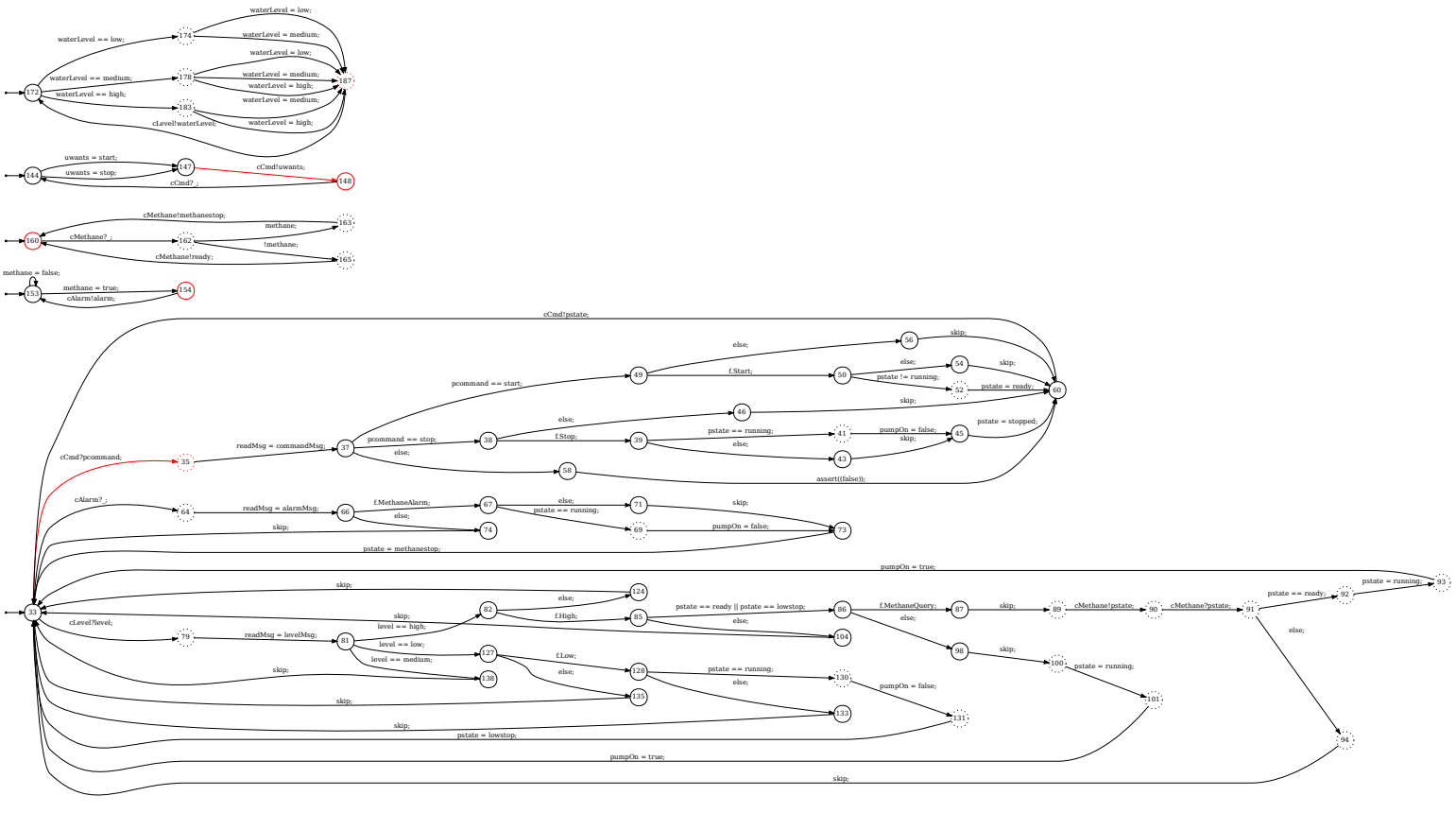
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waterLevel = high;
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154
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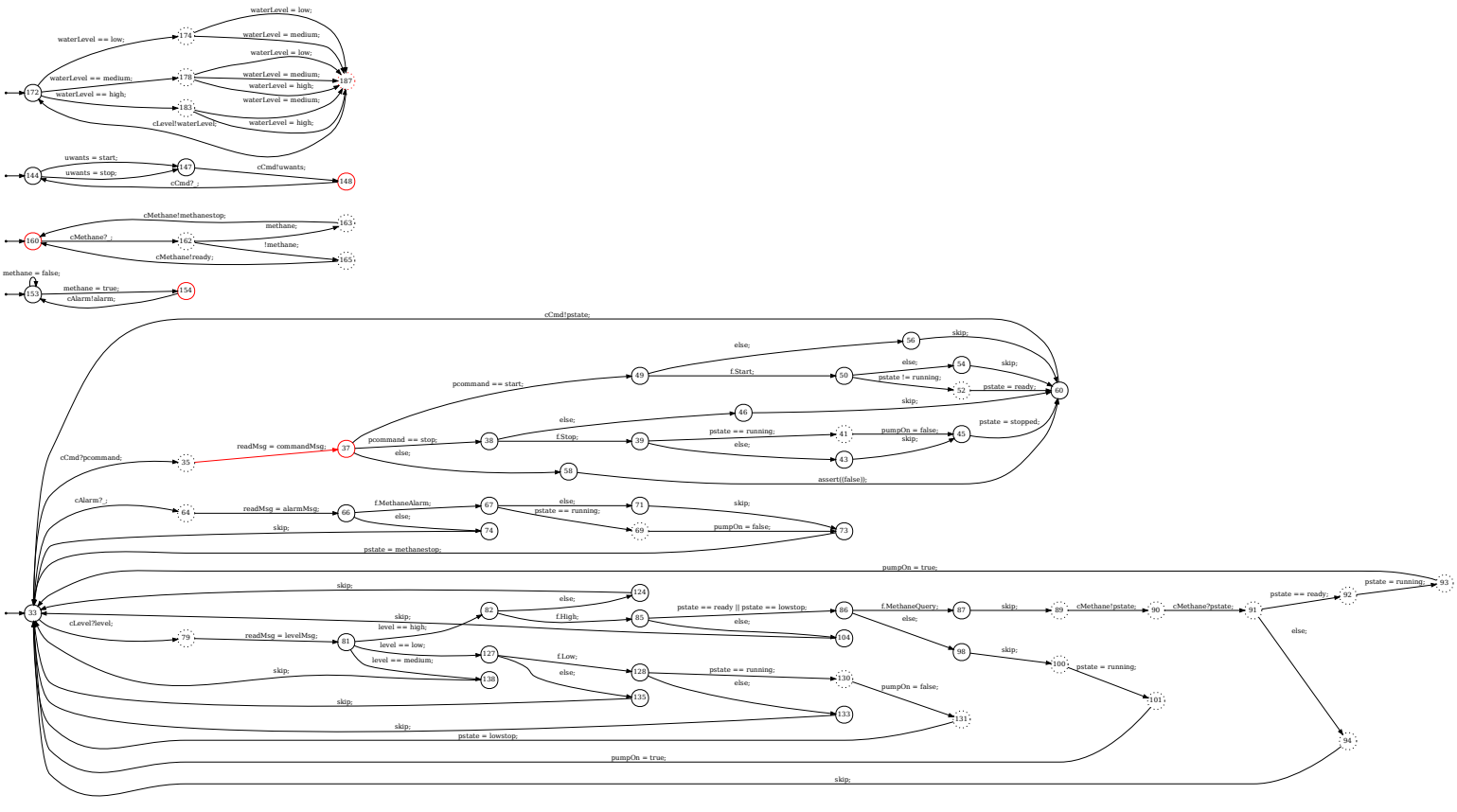
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pcommand == start;
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pumpOn = false;
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39
f.Stop;
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pcommand == stop;
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assert((false));
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readMsg = alarmMsg;
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readMsg = levelMsg;
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level == medium;
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f.Low;
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skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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else;
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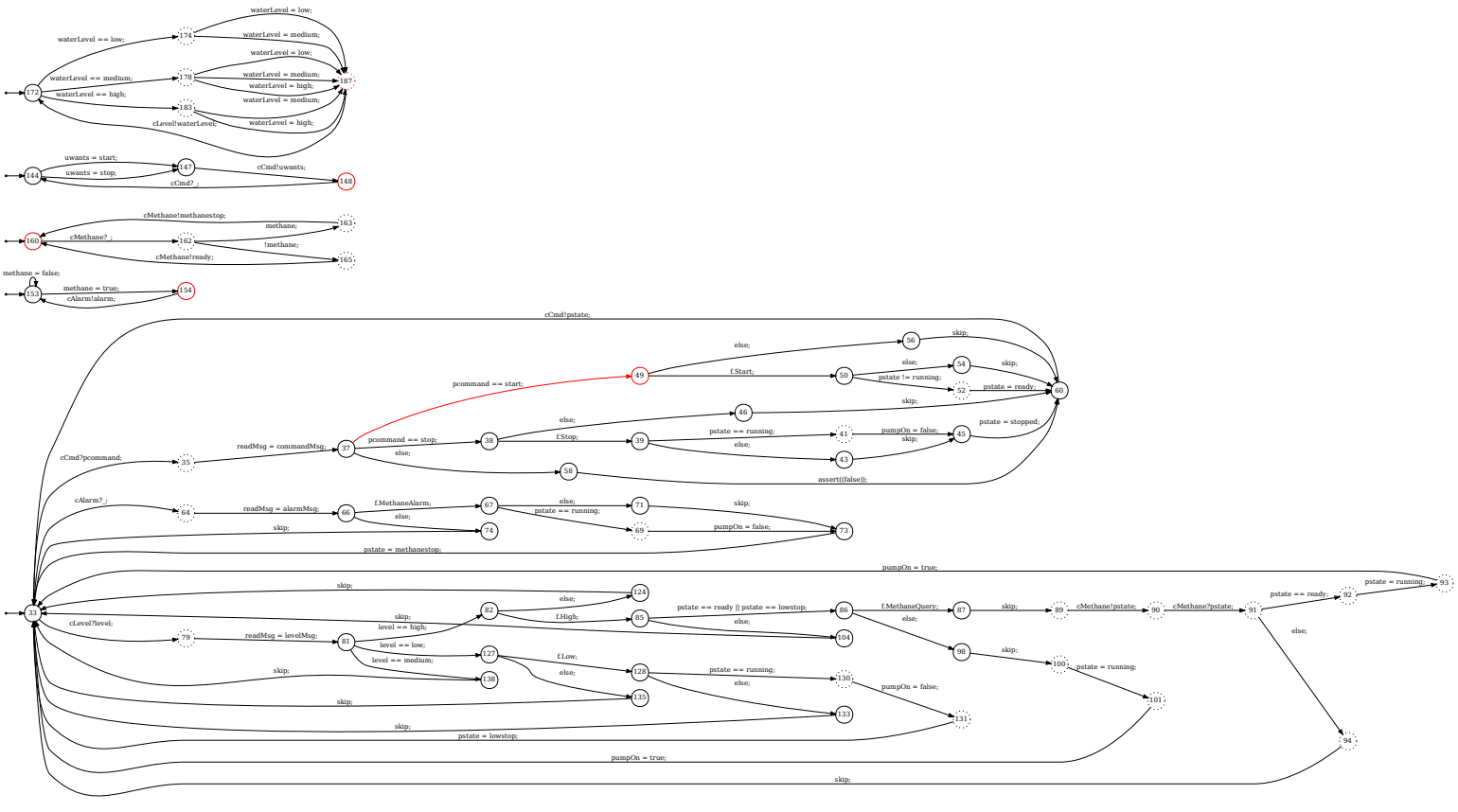
133
131
pstate = lowstop;
pumpOn = true;
skip;
92
pstate = ready;
93
94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waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
162
cMethane!methanestop;
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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else;
pumpOn = false;
133
131
pumpOn = true;
skip;
pstate == ready;
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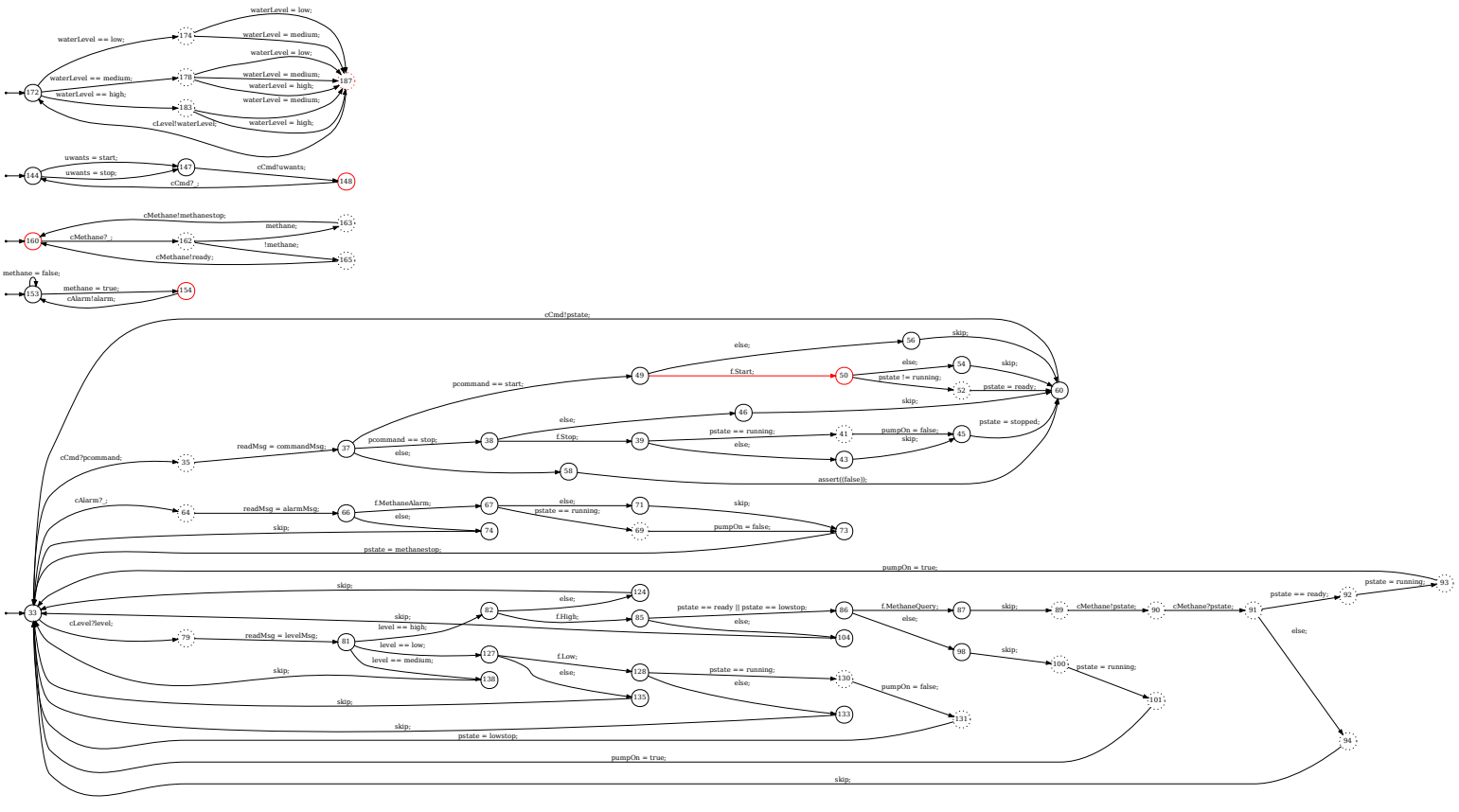
pstate = running;
93
94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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
pcommand == start;
f.Start;
50
pstate != running;
52
pstate = ready;
60
skip;
46
else;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
38
else;
f.Stop;
39
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
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71
skip;
74
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pstate = methanestop;
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138
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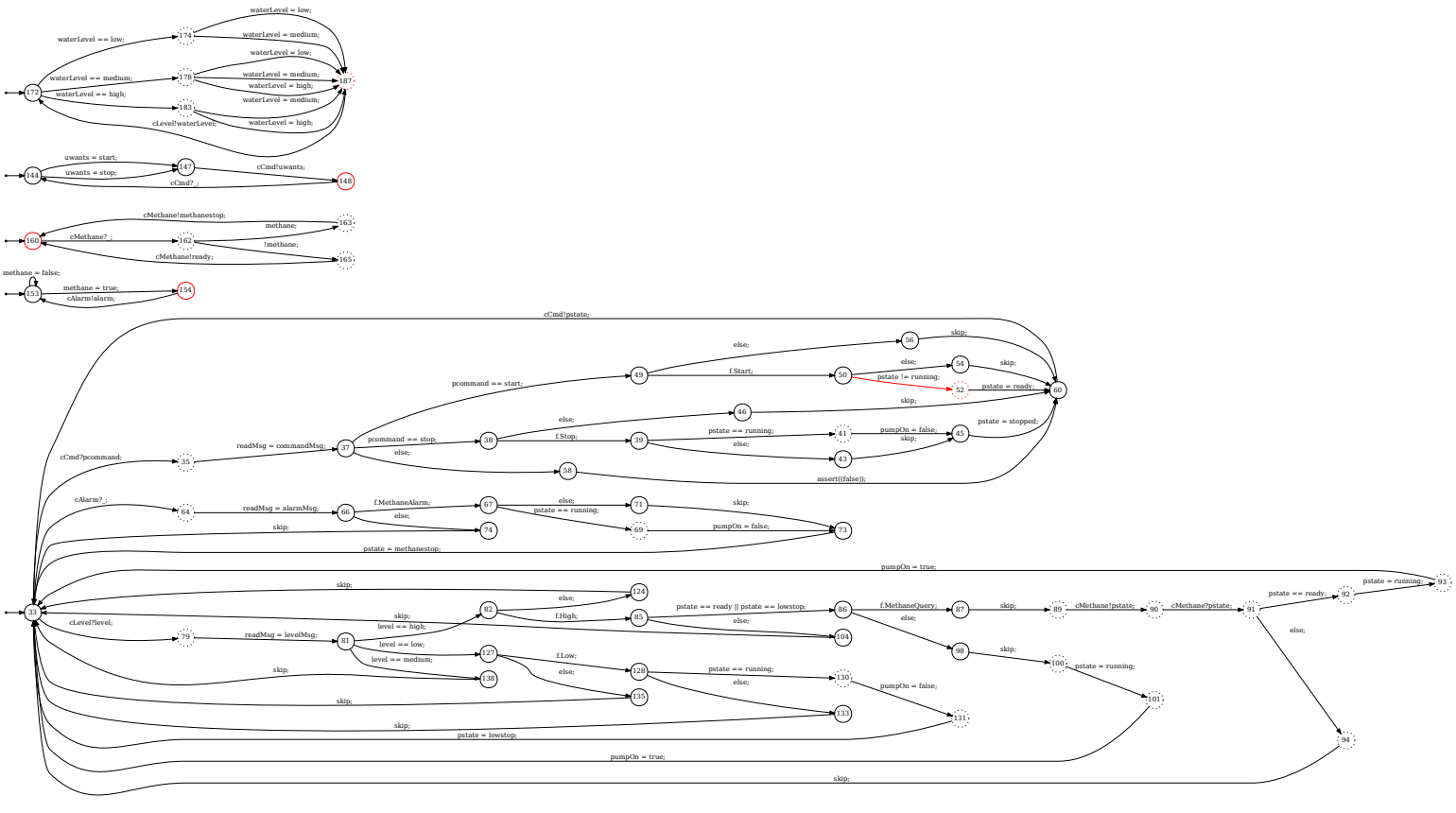
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waterLevel == low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
49
f.Start;
pstate != running;
52
pstate = ready;
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skip;
46
pcommand == start;
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
39
f.Stop;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
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pumpOn = false;
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level == medium;
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f.Low;
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138
135
133
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f.MethaneQuery;
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pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
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else;
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skip;
skip;
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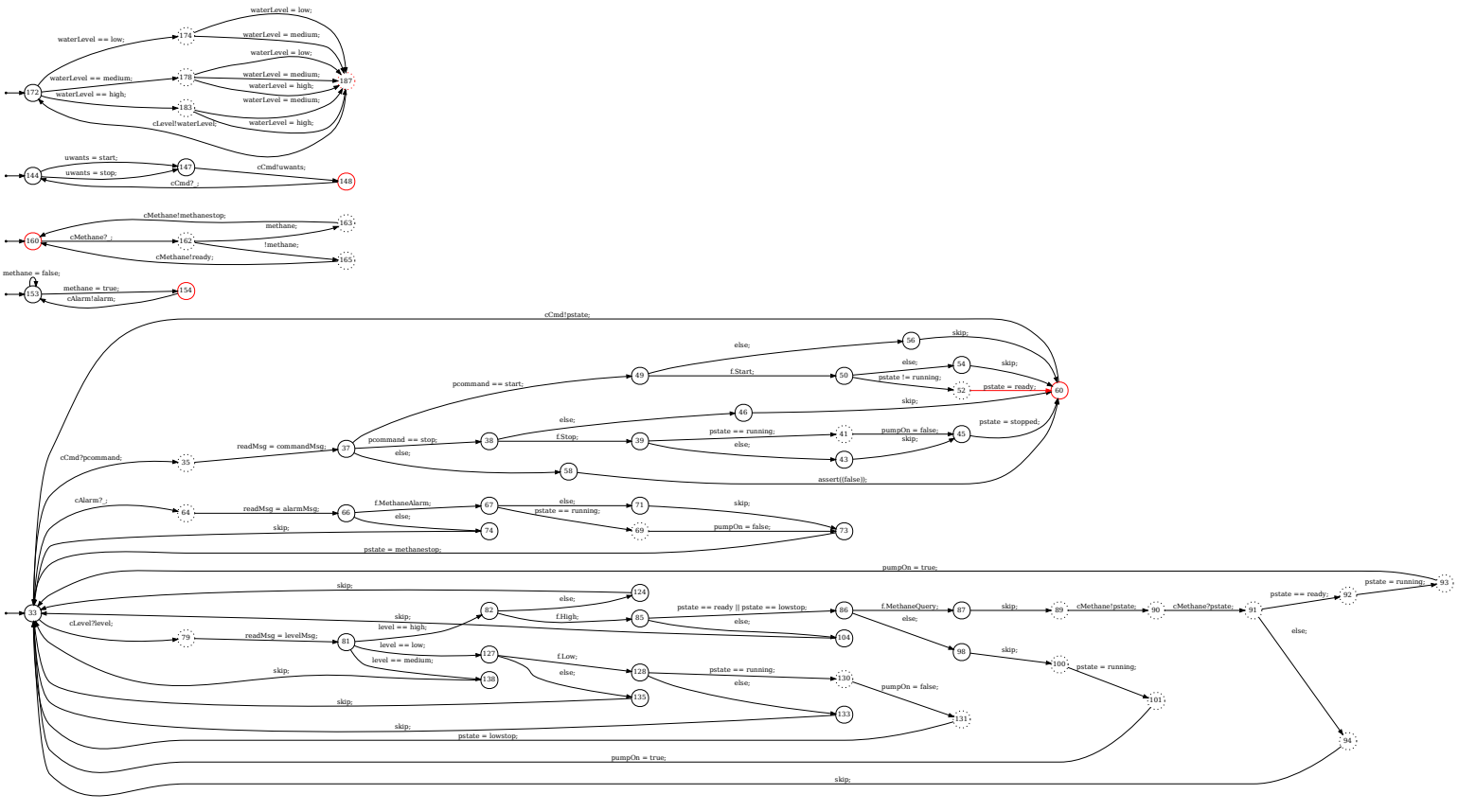
pumpOn = true;
skip;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waterLevel == low;
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waterLevel == medium;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
pcommand == start;
f.Start;
pstate != running;
52
pstate = ready;
60
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
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f.Stop;
39
else;
else;
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else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
else;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
104
else;
98
skip;
100
pstate = running;
101
level == low;
127
f.Low;
level == medium;
138
else;
128
pstate == running;
else;
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skip;
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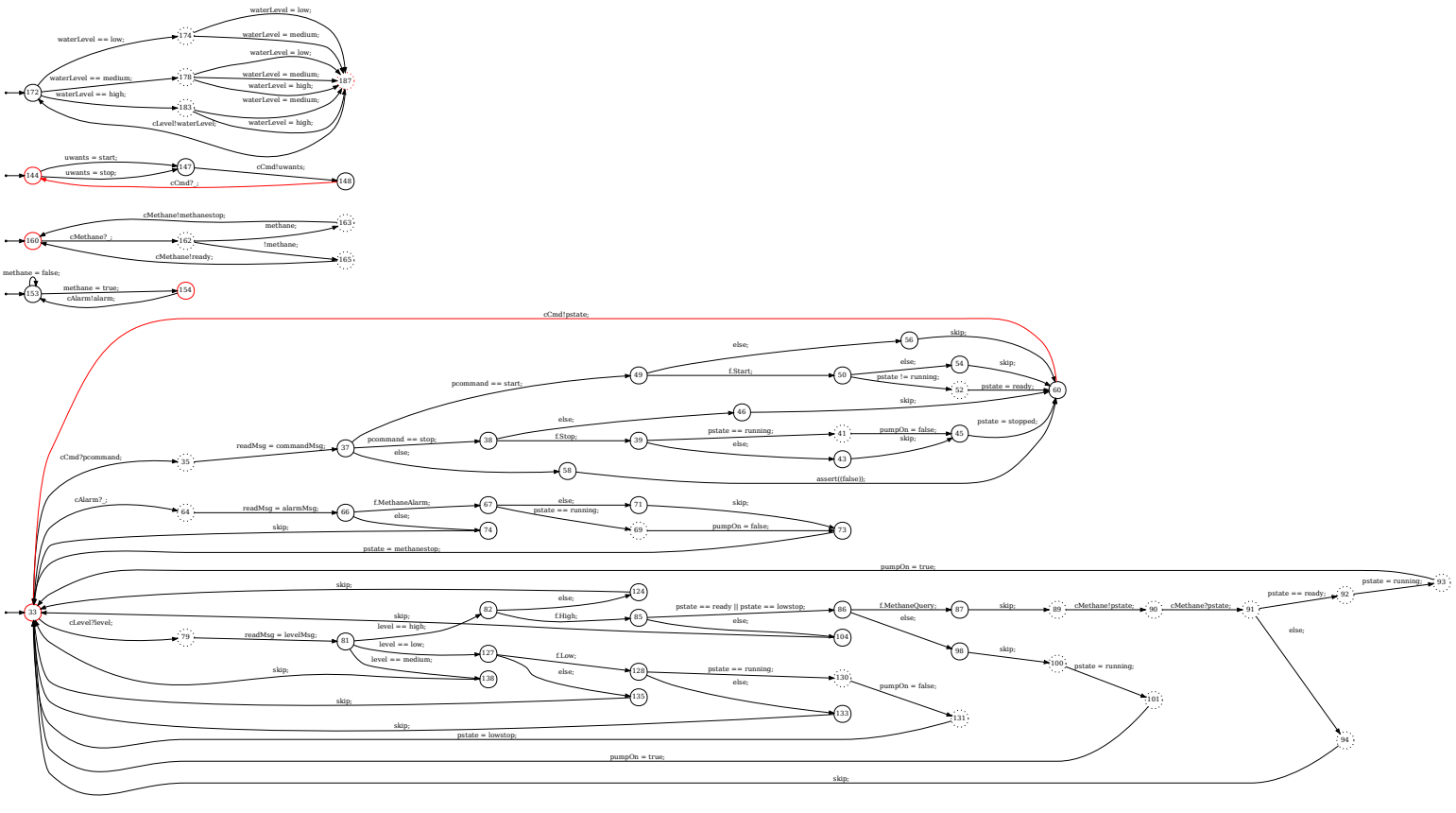
skip;
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
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pcommand == stop;
else;
cAlarm? ;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
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pstate = running;
93
else;
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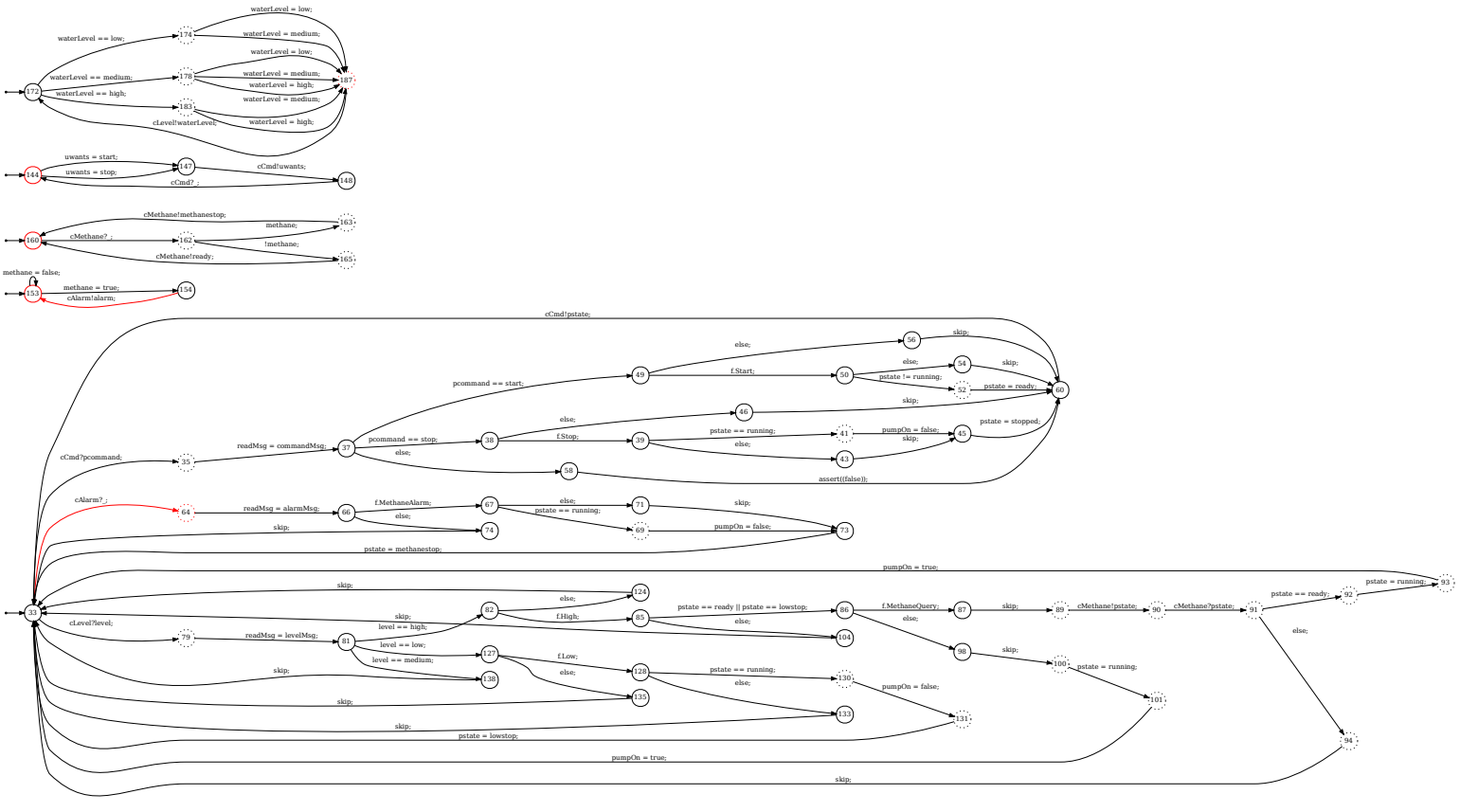
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
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cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
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38
f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
cCmd?pcommand;
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readMsg = commandMsg;
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readMsg = alarmMsg;
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f.MethaneAlarm;
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73
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pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
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f.MethaneQuery;
else;
87
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89
cMethane!pstate;
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cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
104
127
f.Low;
else;
128
pstate == running;
else;
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pumpOn = false;
98
skip;
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135
133
131
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skip;
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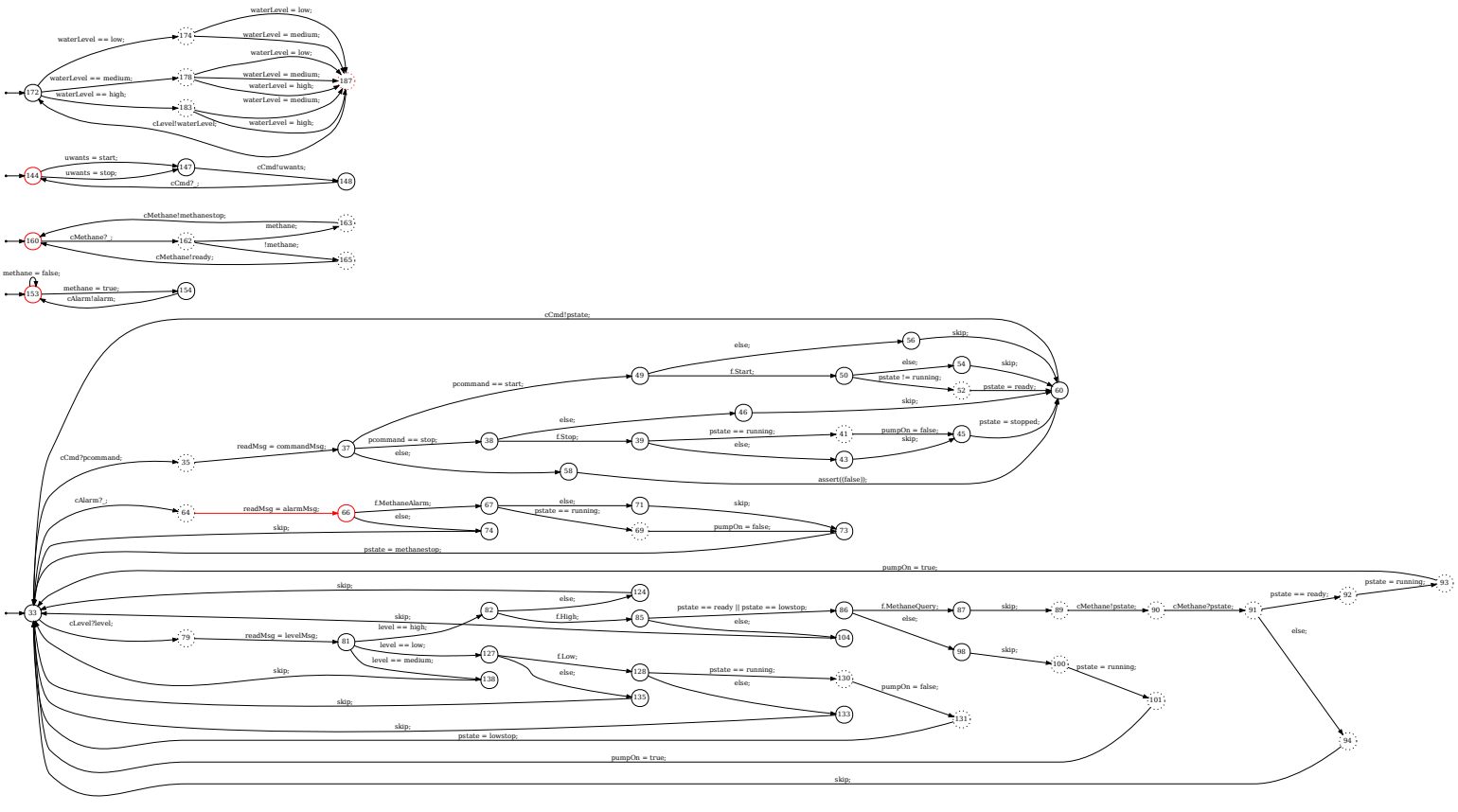
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
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160
cMethane!methanestop;
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methane;
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cMethane!ready;
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methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
pcommand == stop;
else;
37
readMsg = commandMsg;
35
cCmd?pcommand;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
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67
else;
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71
skip;
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pumpOn = false;
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skip;
pstate = methanestop;
pumpOn = true;
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f.High;
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skip;
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readMsg = levelMsg;
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level == low;
level == medium;
127
f.Low;
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138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
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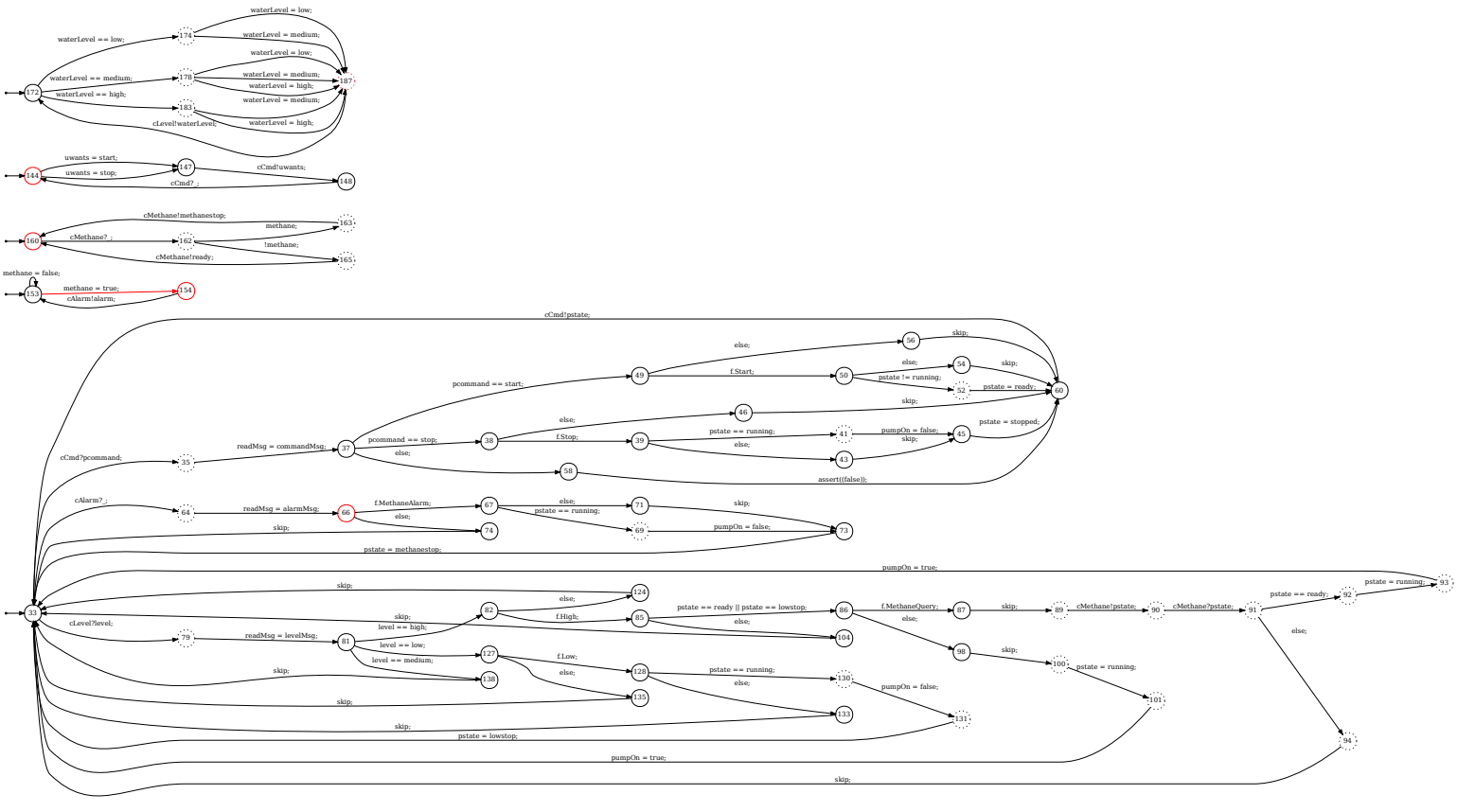
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
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methane = true;
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56
54
52
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49
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skip;
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pstate != running;
pstate = ready;
pcommand == start;
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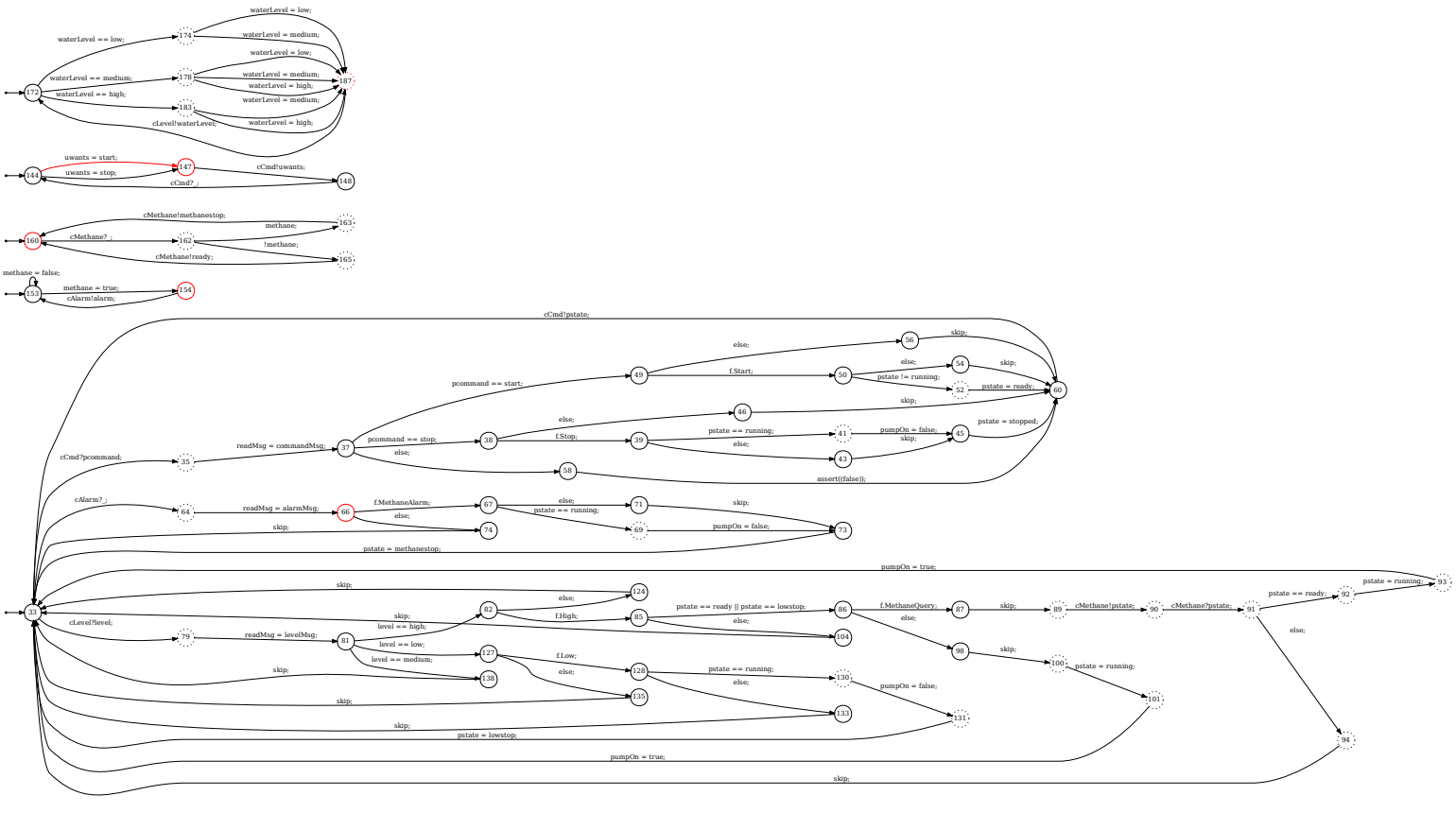
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waterLevel = medium;
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waterLevel == high;
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waterLevel = medium;
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skip;
else;
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skip;
else;
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skip;
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f.Stop;
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pstate == running;
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pstate = stopped;
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pstate = running;
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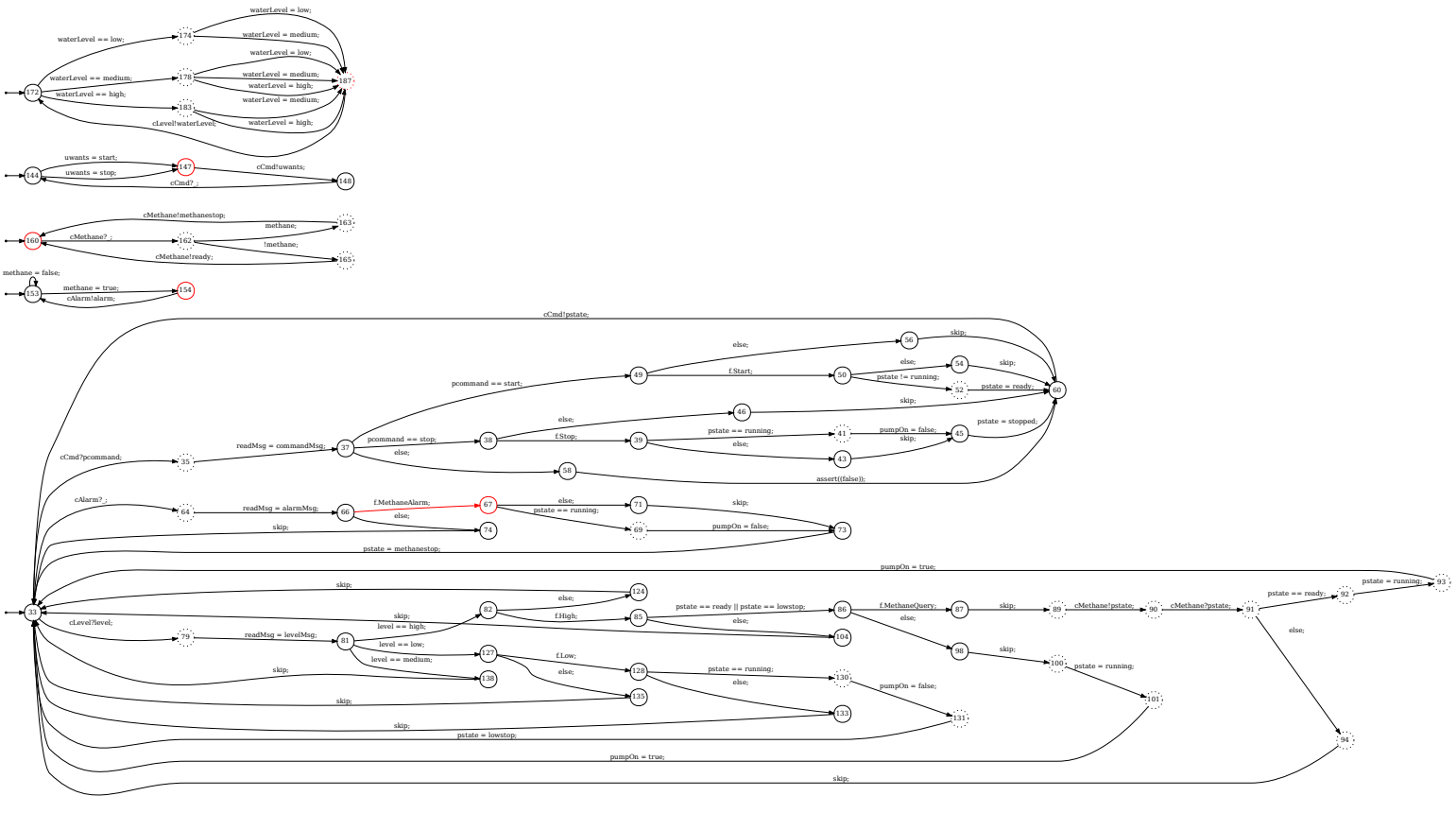
pstate = lowstop;
pumpOn = true;
skip;


172
174
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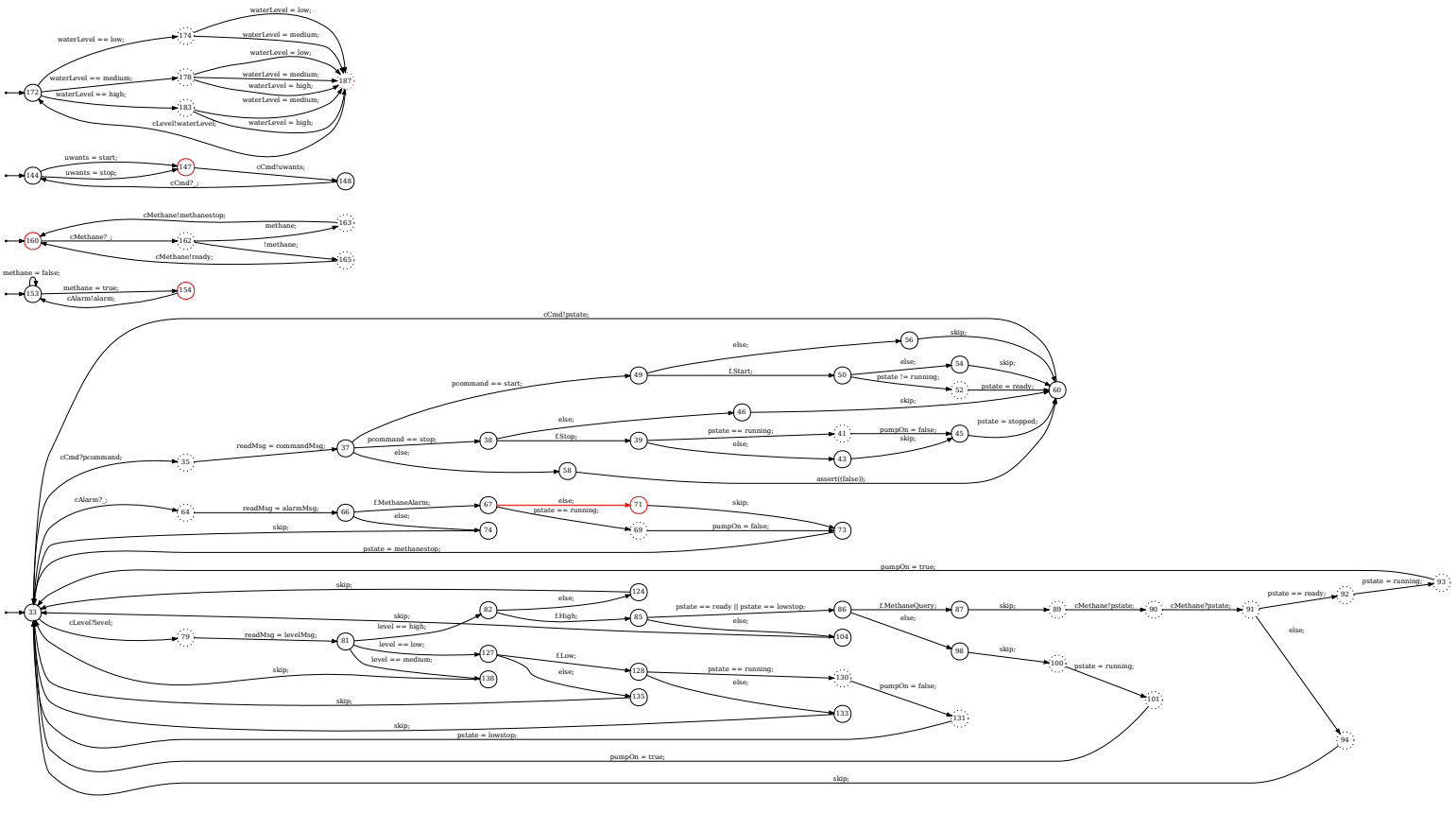
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
33
35
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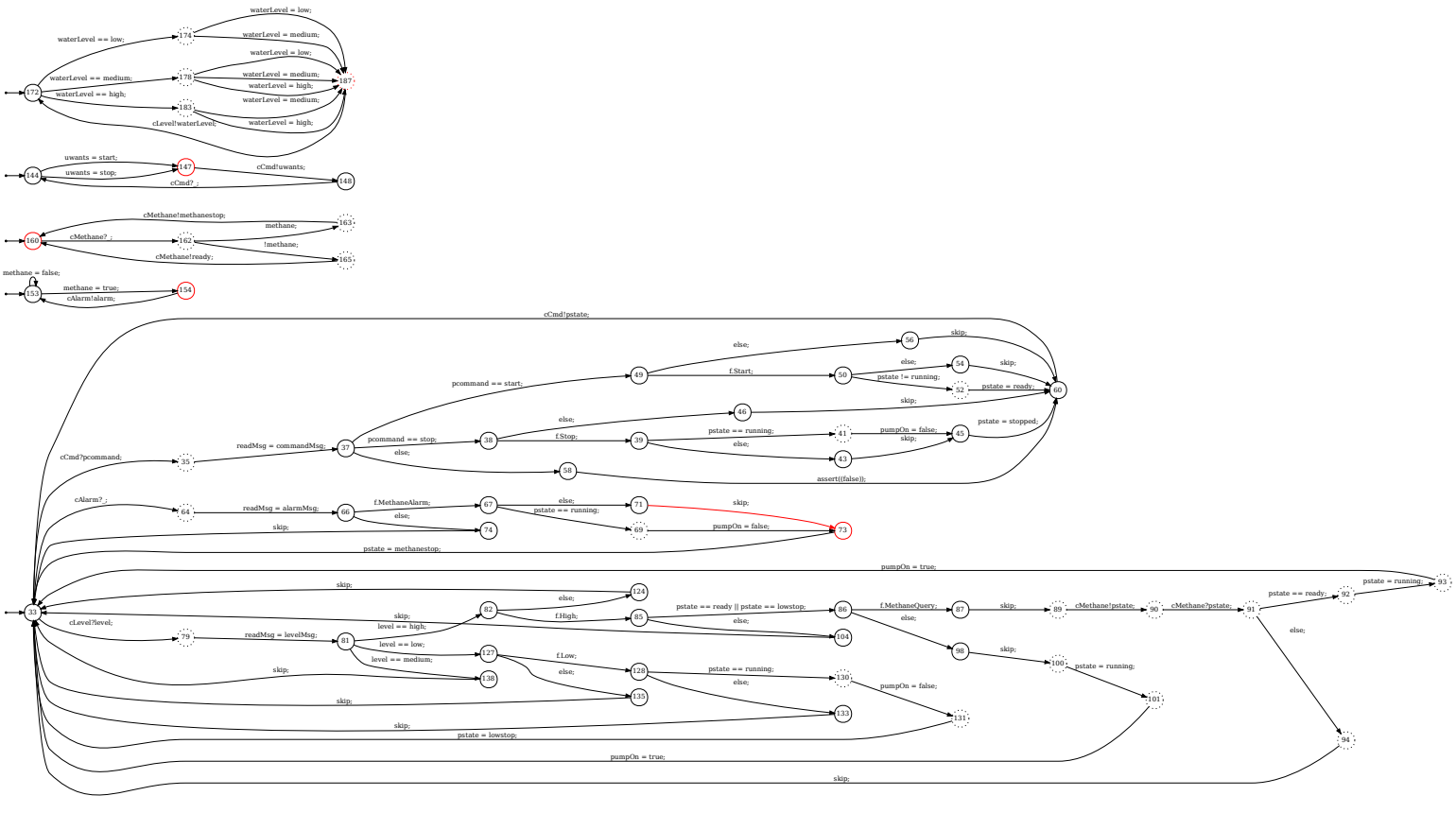
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = running;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
79
81
82
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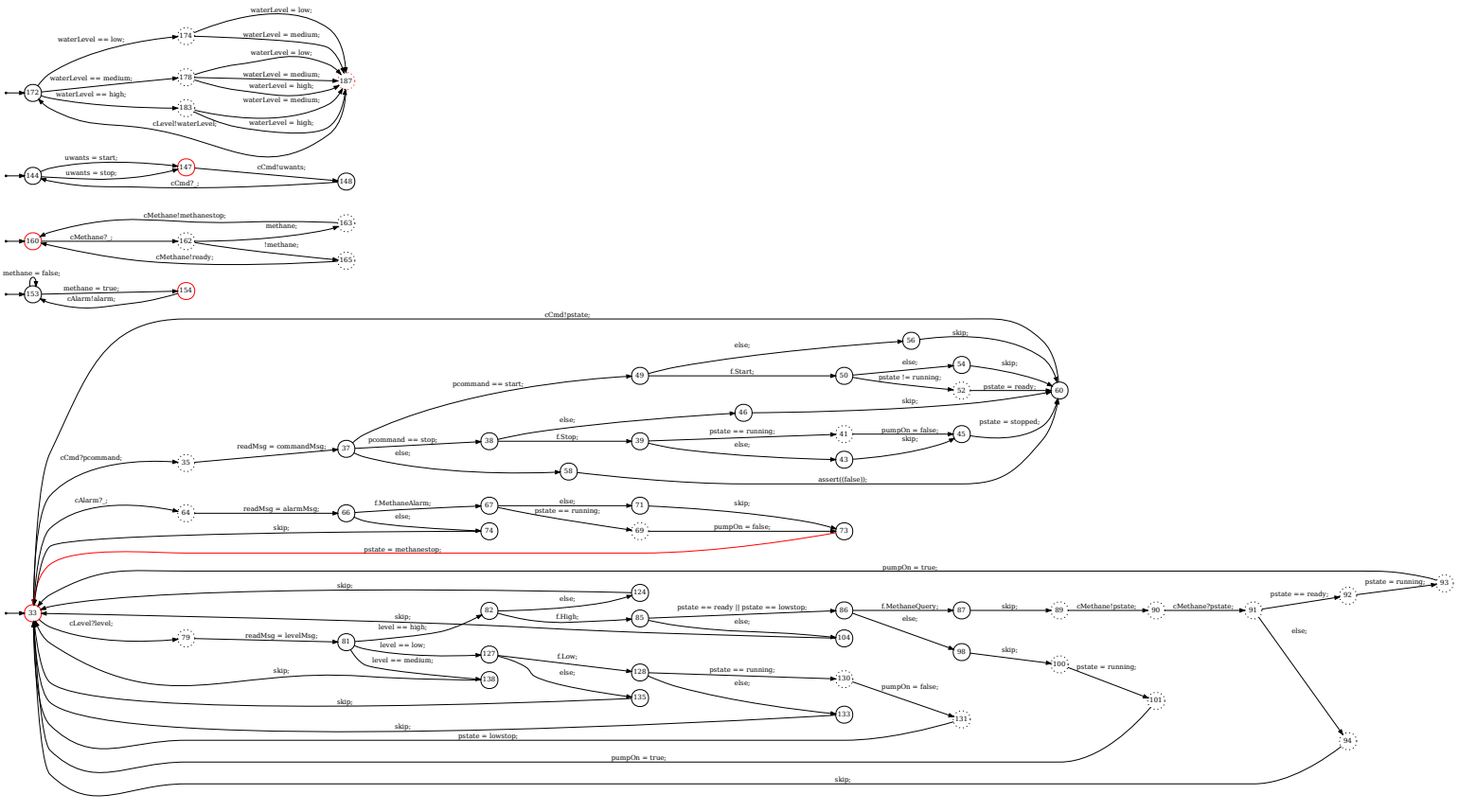
86
87
89
90
91
92
93
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel == low;
174
waterLevel = medium;
waterLevel = low;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
130
else;
pumpOn = false;
101
skip;
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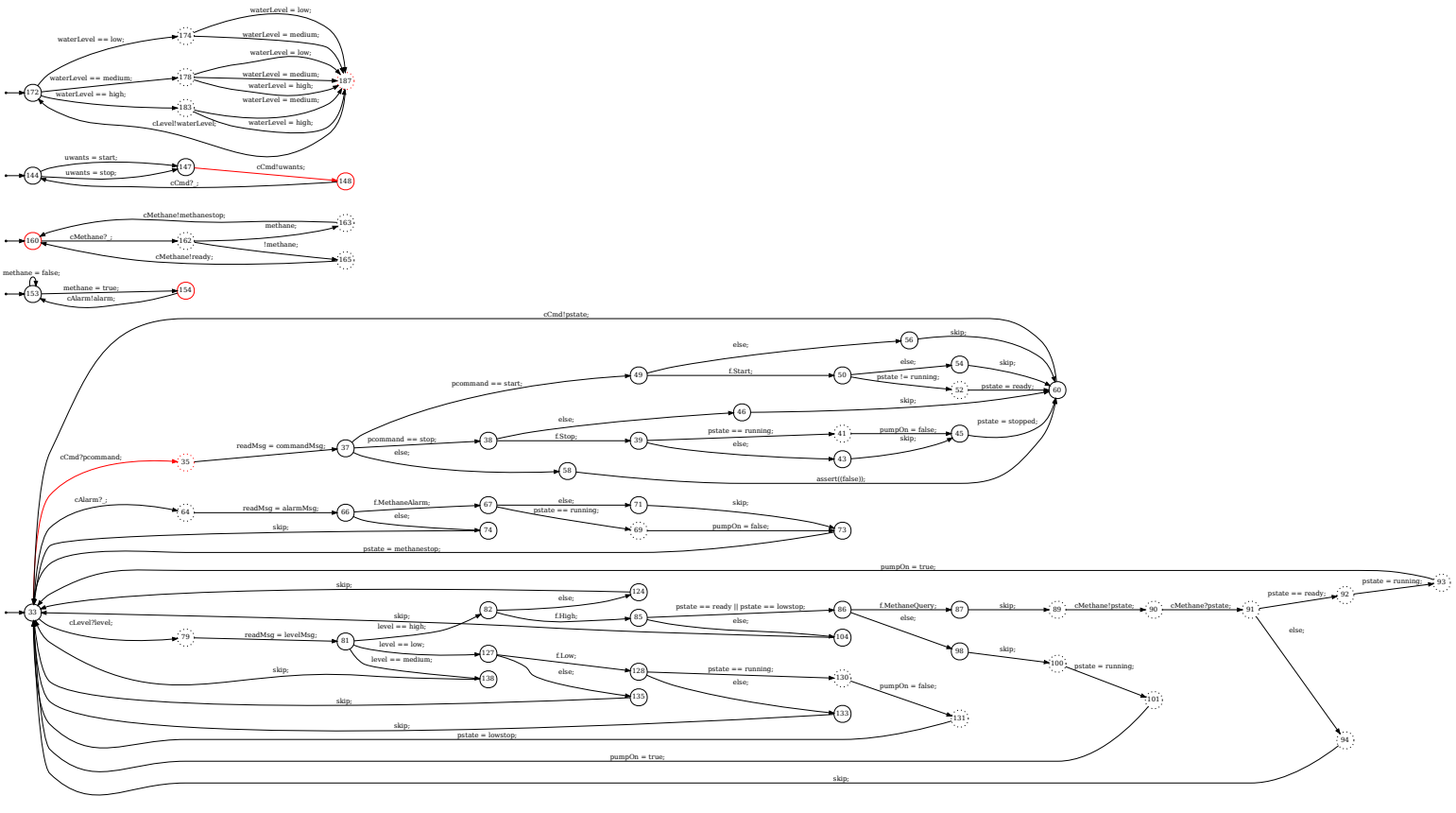
133
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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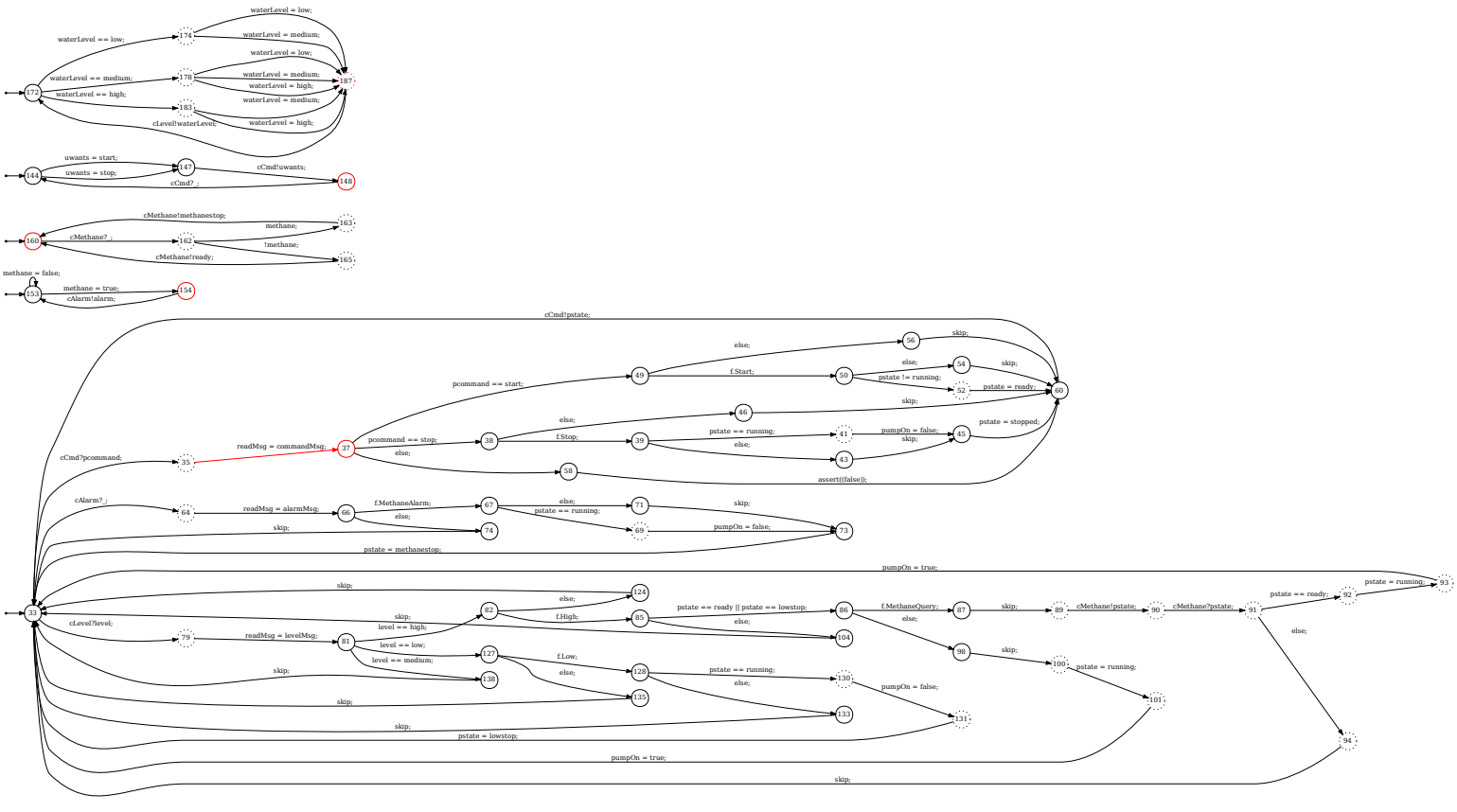
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
pumpOn = false;
131
pstate == ready;
92
pstate = running;
93
94
pumpOn = true;
skip;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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
else;
43
else;
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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else;
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131
pstate = lowstop;
pumpOn = true;
skip;
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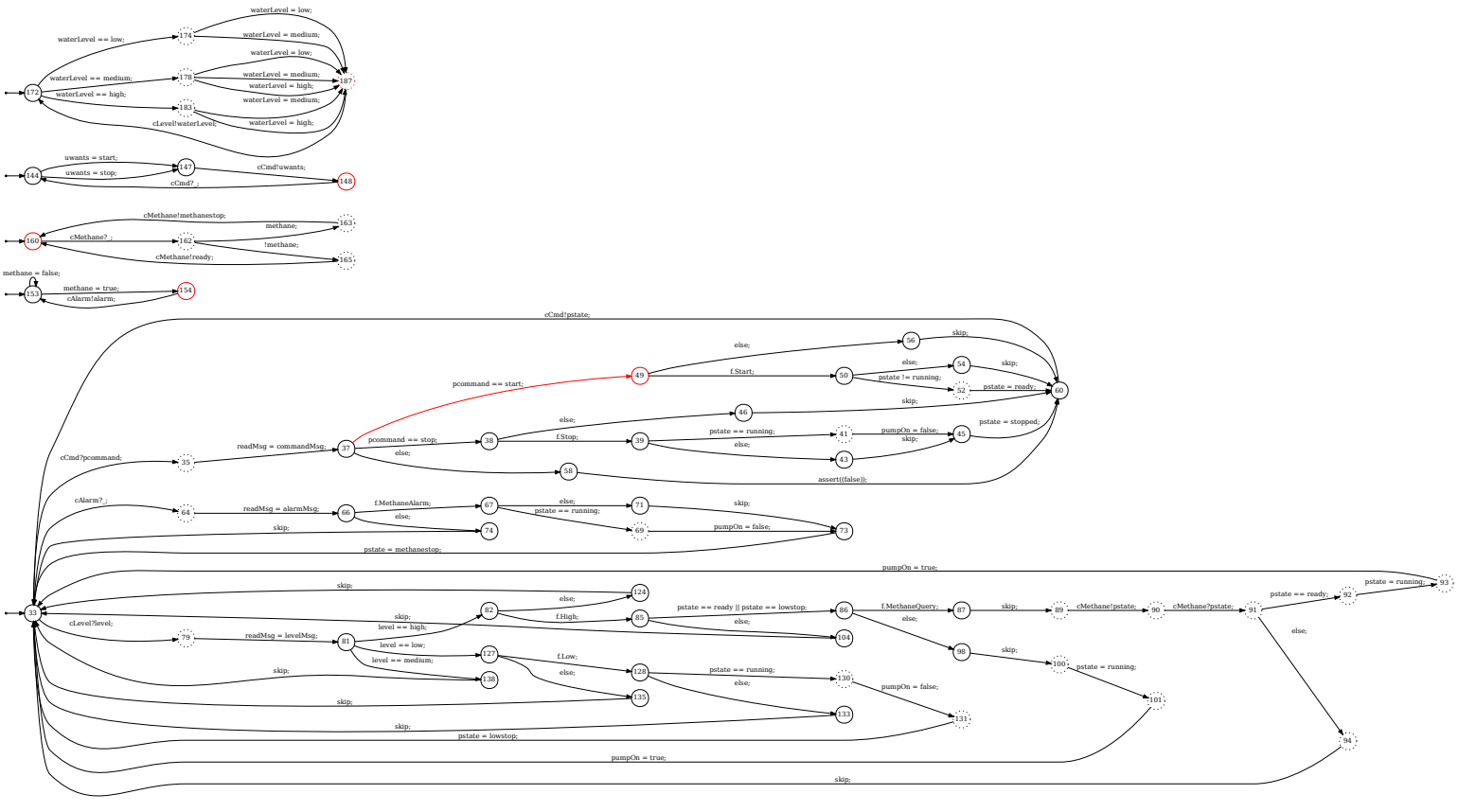
pstate = ready;
93
94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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
162
cMethane!methanestop;
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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else;
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skip;
pstate == ready;
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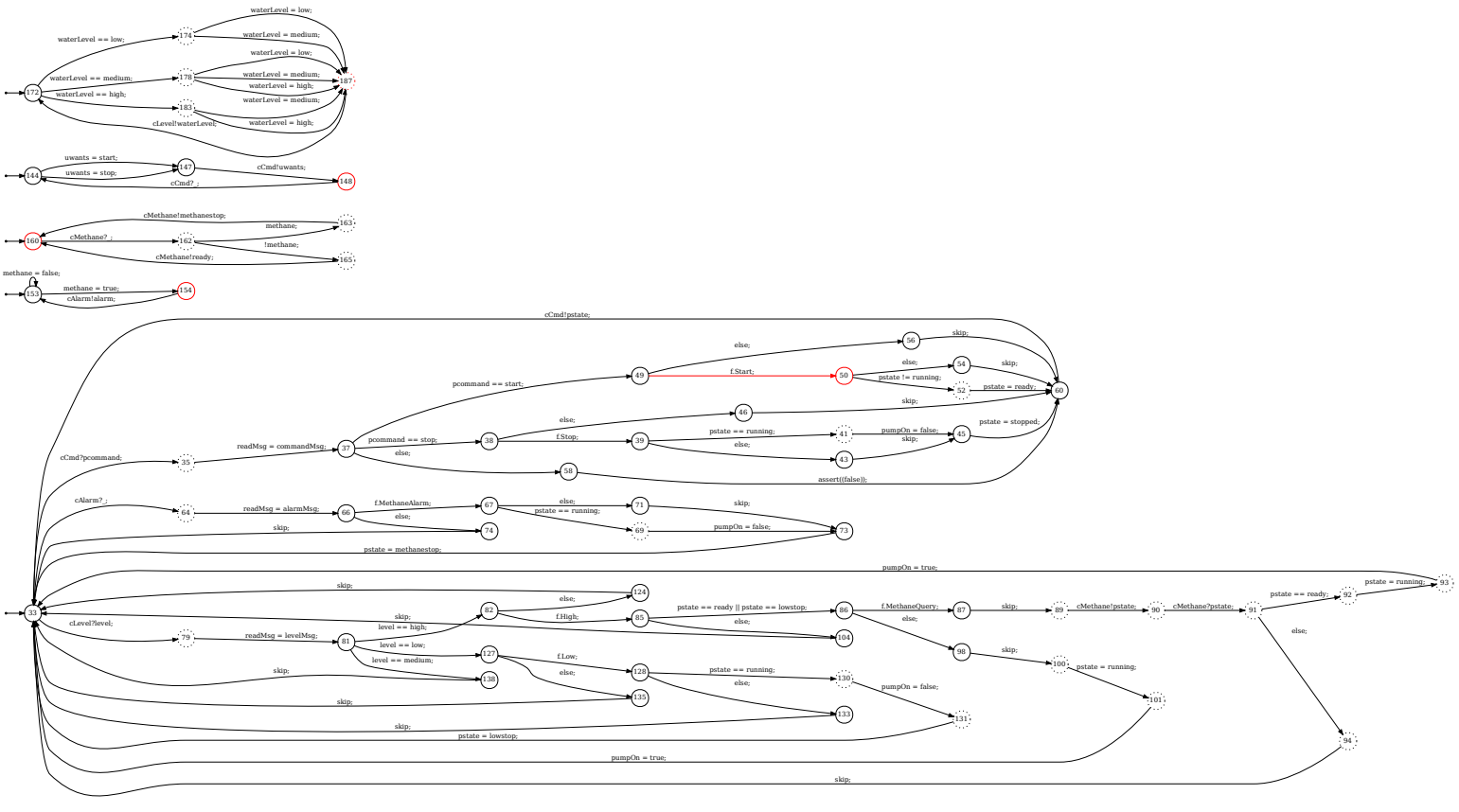
pstate = running;
93
94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waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
pcommand == start;
f.Start;
50
pstate != running;
52
pstate = ready;
60
skip;
46
else;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
38
else;
f.Stop;
39
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
89
skip;
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
100
pstate = running;
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else;
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pumpOn = false;
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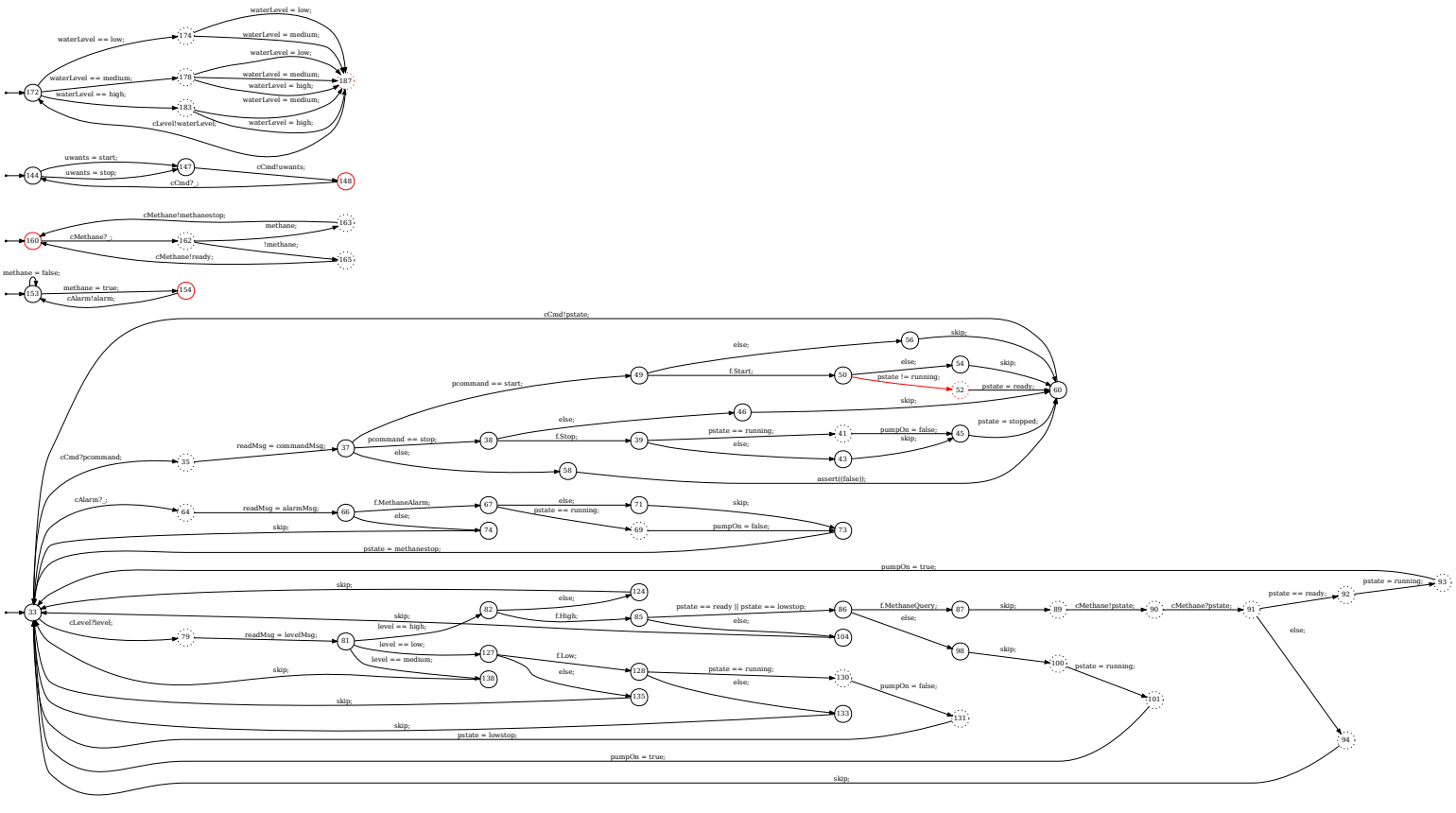
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
49
f.Start;
pstate != running;
52
pstate = ready;
60
skip;
46
pcommand == start;
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
38
39
f.Stop;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
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pstate == running;
else;
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skip;
skip;
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pstate = lowstop;
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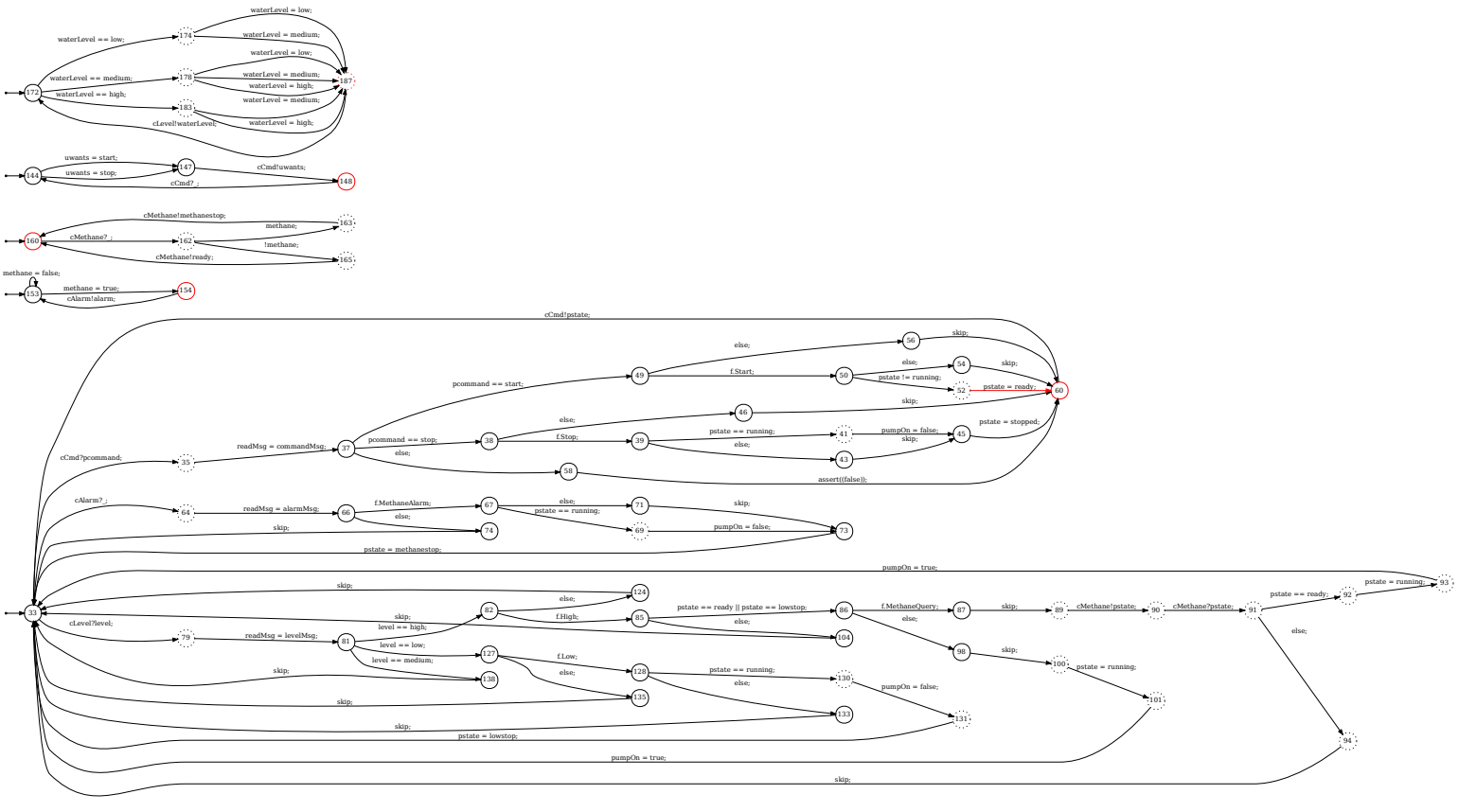
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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
50
pcommand == start;
f.Start;
pstate != running;
52
pstate = ready;
60
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
else;
43
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
else;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
104
else;
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skip;
100
pstate = running;
101
level == low;
127
f.Low;
level == medium;
138
else;
128
pstate == running;
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pstate = lowstop;
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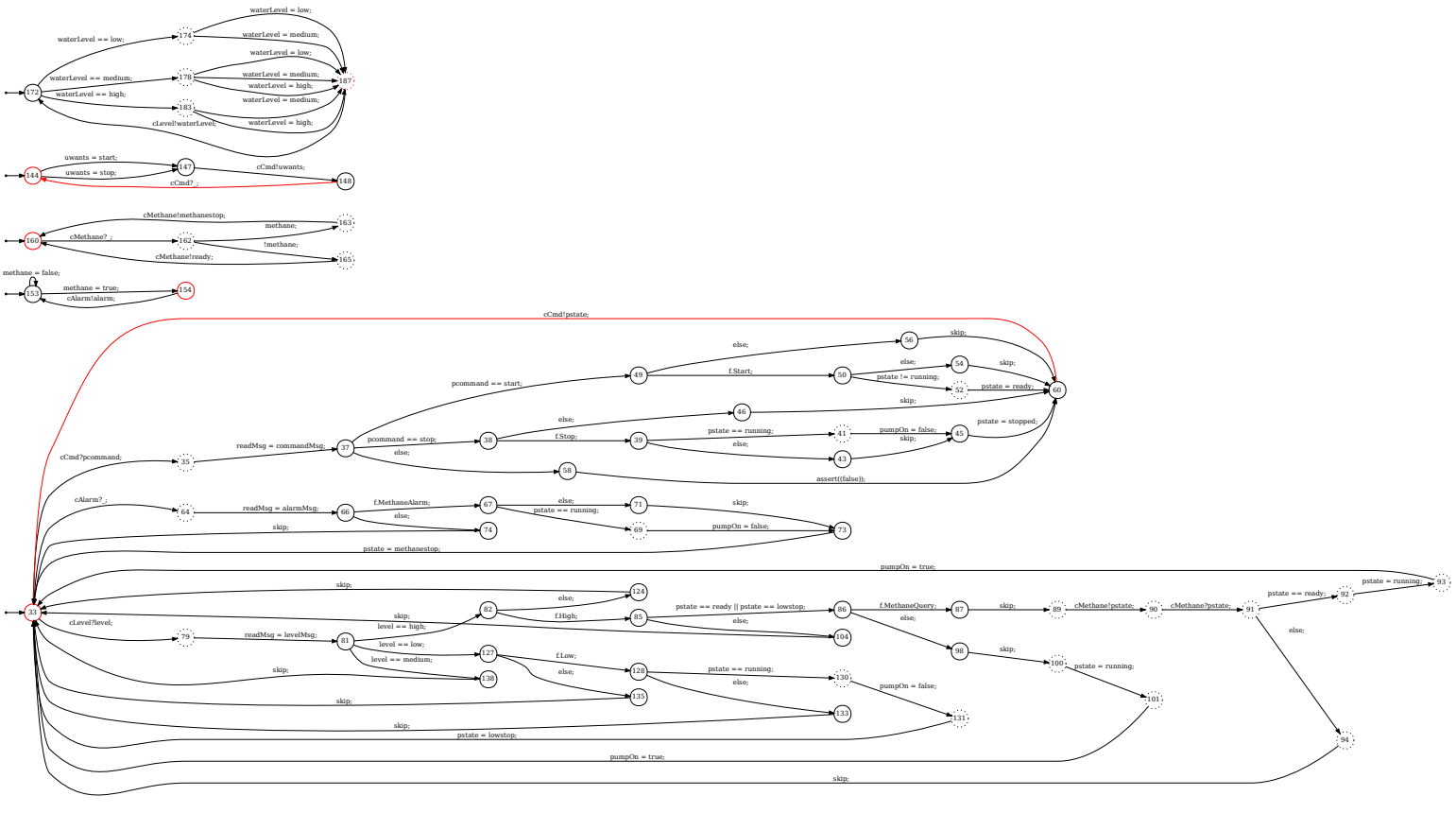
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waterLevel == low;
waterLevel = low;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
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160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
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154
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cAlarm!alarm;
cCmd!pstate;
56
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cCmd?pcommand;
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124
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82
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skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
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cMethane!pstate;
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cMethane?pstate;
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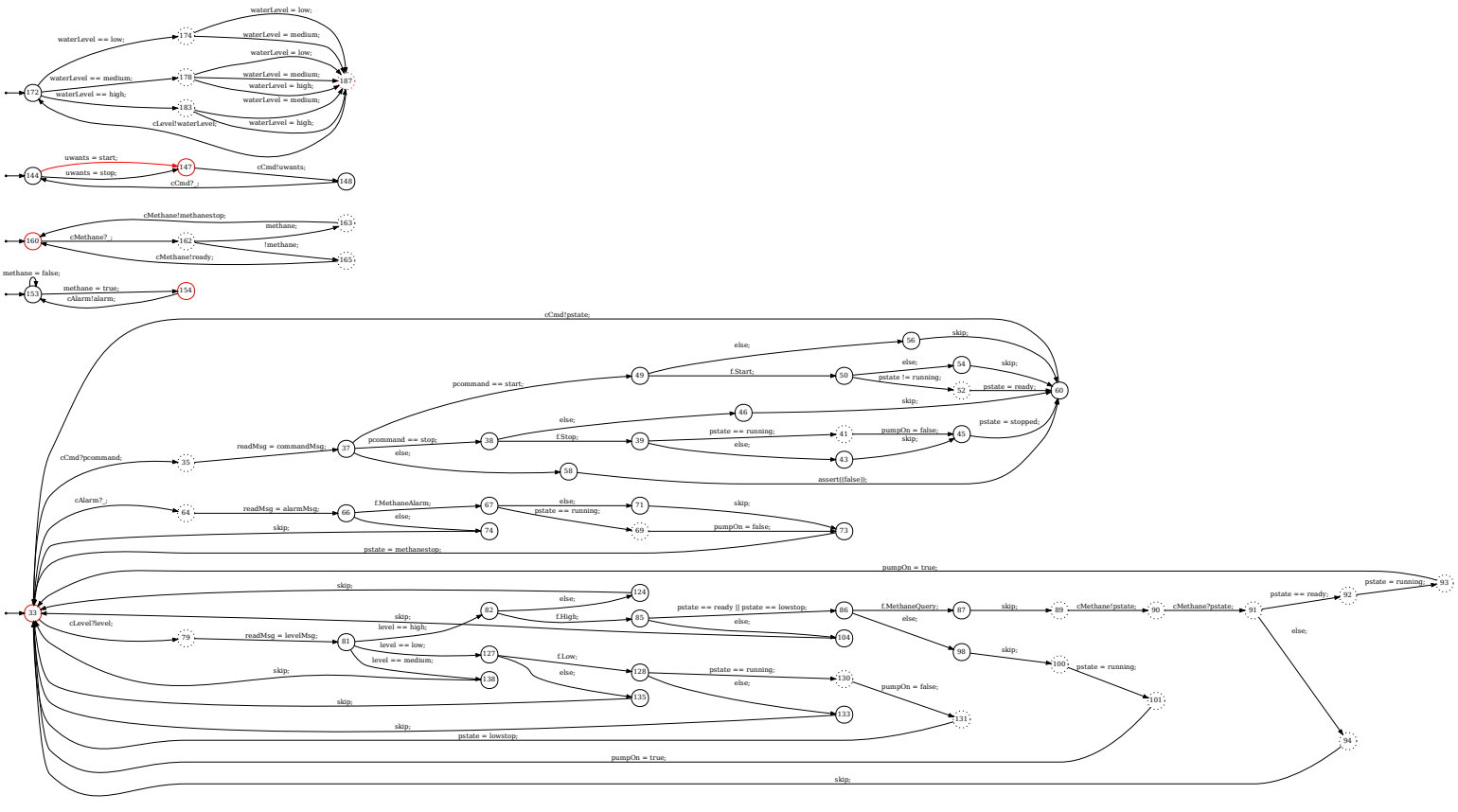
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!methane;
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cCmd!pstate;
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skip;
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pcommand == start;
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f.Stop;
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assert((false));
cCmd?pcommand;
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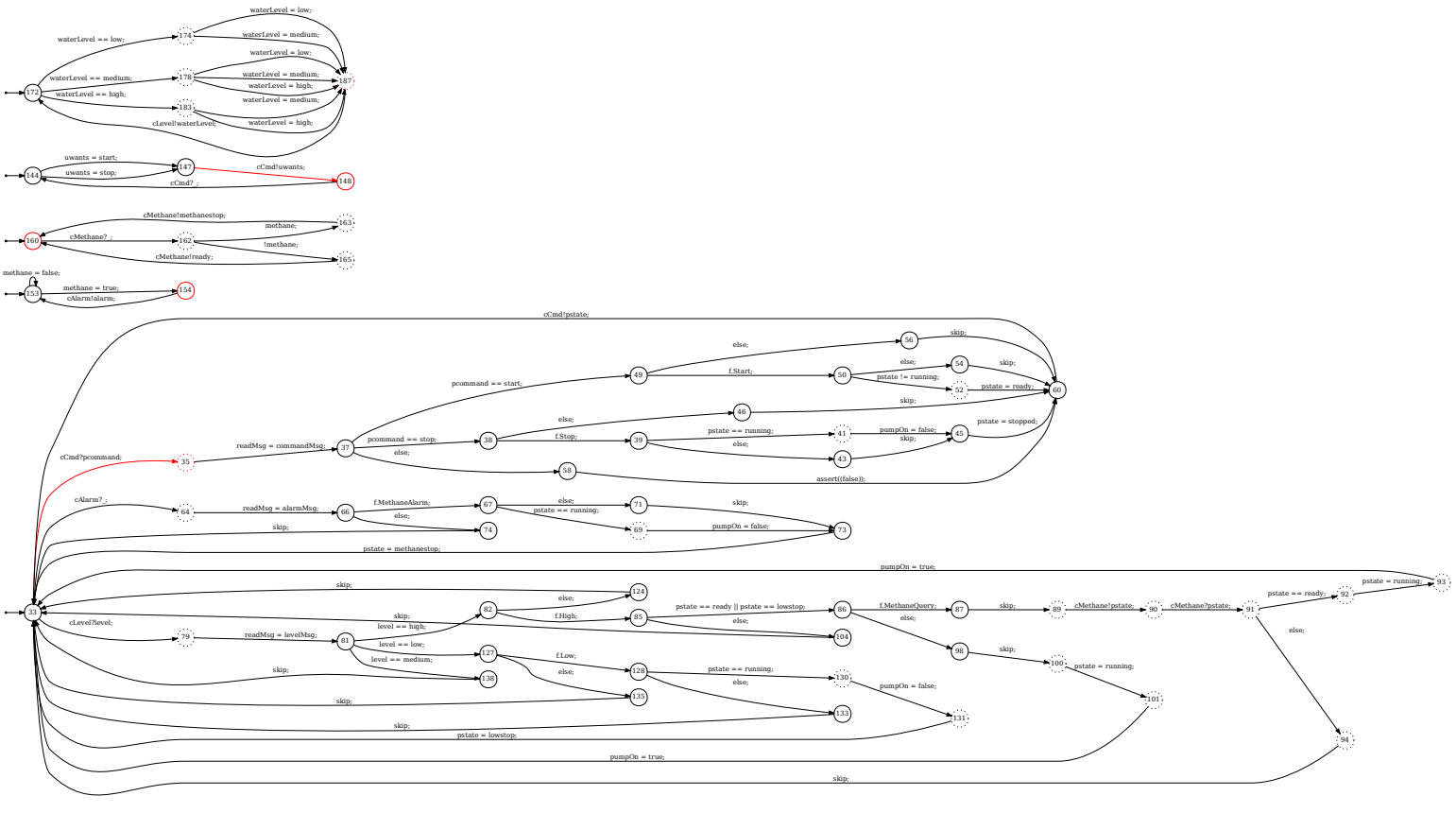
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86
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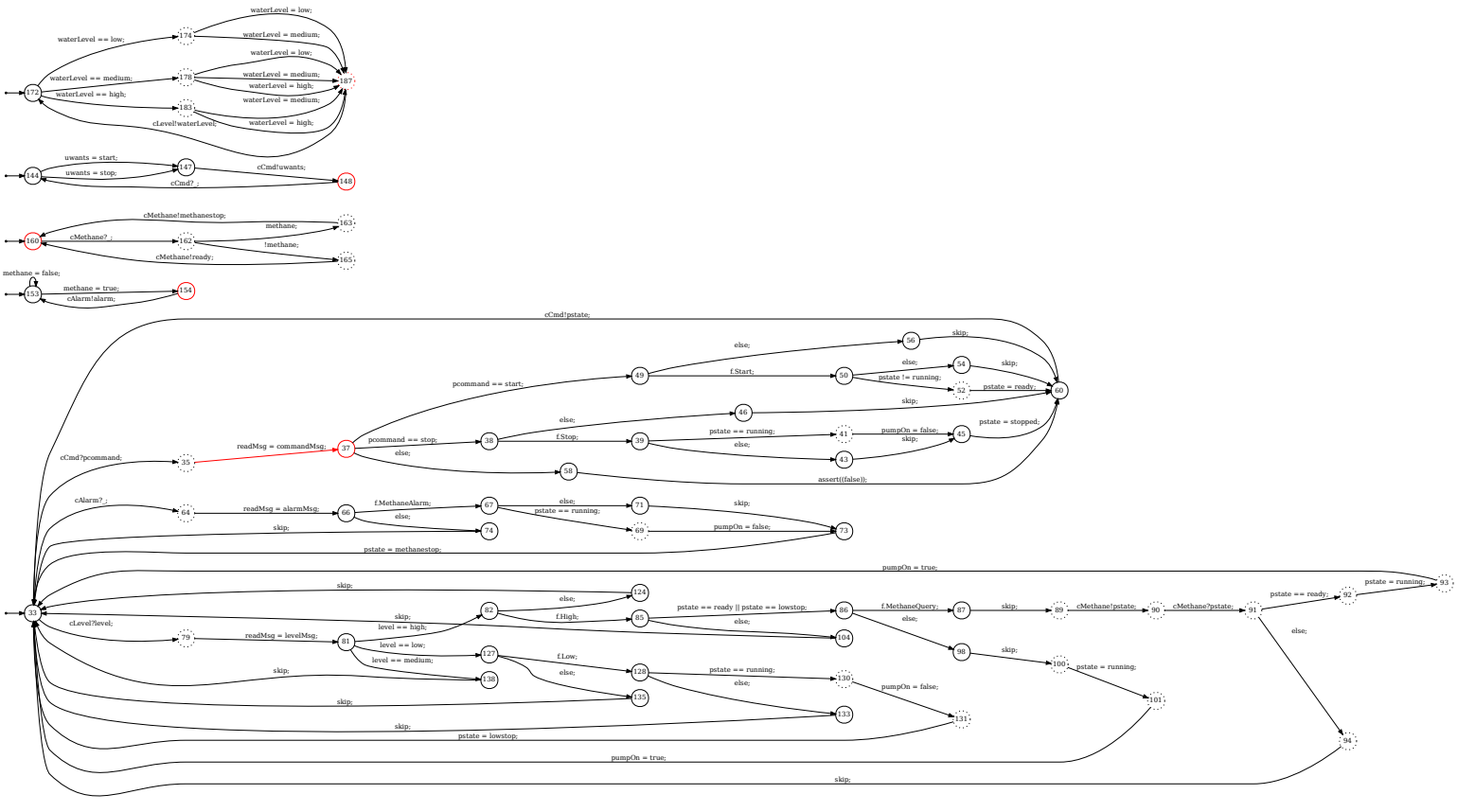
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waterLevel = high;
waterLevel == high;
waterLevel = medium;
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147
148
uwants = start;
uwants = stop;
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cCmd? ;
160
162
163
165
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methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
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cCmd!pstate;
56
skip;
else;
54
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skip;
49
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pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
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pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
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else;
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else;
pcommand == stop;
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else;
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assert((false));
readMsg = commandMsg;
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cCmd?pcommand;
cAlarm? ;
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readMsg = alarmMsg;
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f.MethaneAlarm;
else;
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skip;
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pumpOn = false;
73
skip;
pstate = methanestop;
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124
else;
82
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104
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79
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level == low;
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skip;
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pstate = lowstop;
pstate == ready || pstate == lowstop;
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86
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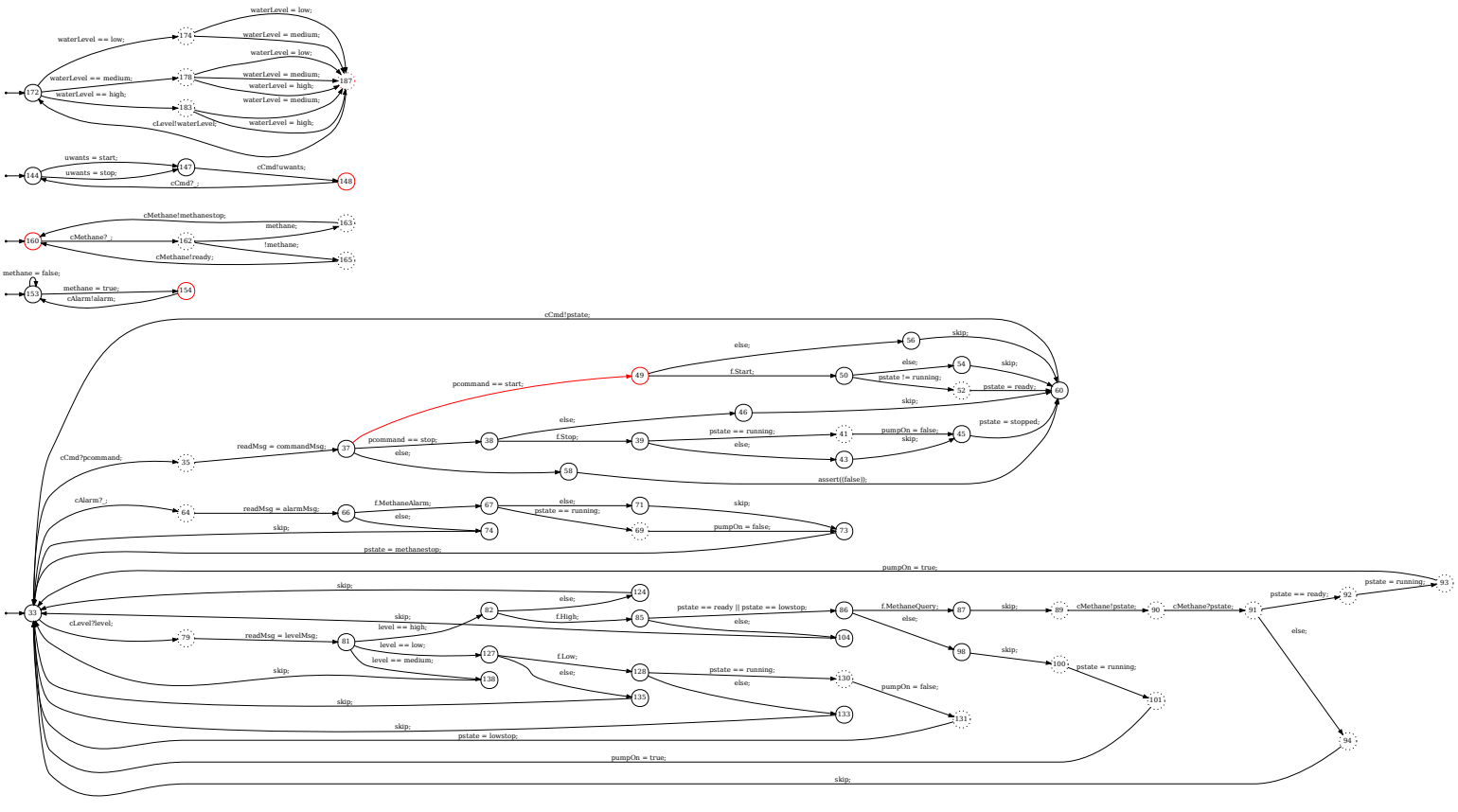
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waterLevel = high;
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187
144
uwants = start;
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cCmd!uwants;
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cMethane? ;
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cMethane!methanestop;
methane;
!methane;
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cMethane!ready;
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methane = false;
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methane = true;
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skip;
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f.Start;
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pstate != running;
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f.Stop;
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pstate == running;
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pumpOn = false;
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pstate = stopped;
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cCmd?pcommand;
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readMsg = commandMsg;
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else;
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74
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pumpOn = false;
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skip;
pstate = methanestop;
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skip;
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else;
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f.High;
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cLevel?level;
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readMsg = levelMsg;
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skip;
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f.Low;
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skip;
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pstate = lowstop;
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f.MethaneQuery;
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cMethane?pstate;
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pstate = running;
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pumpOn = true;
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pstate == ready;
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pstate = running;
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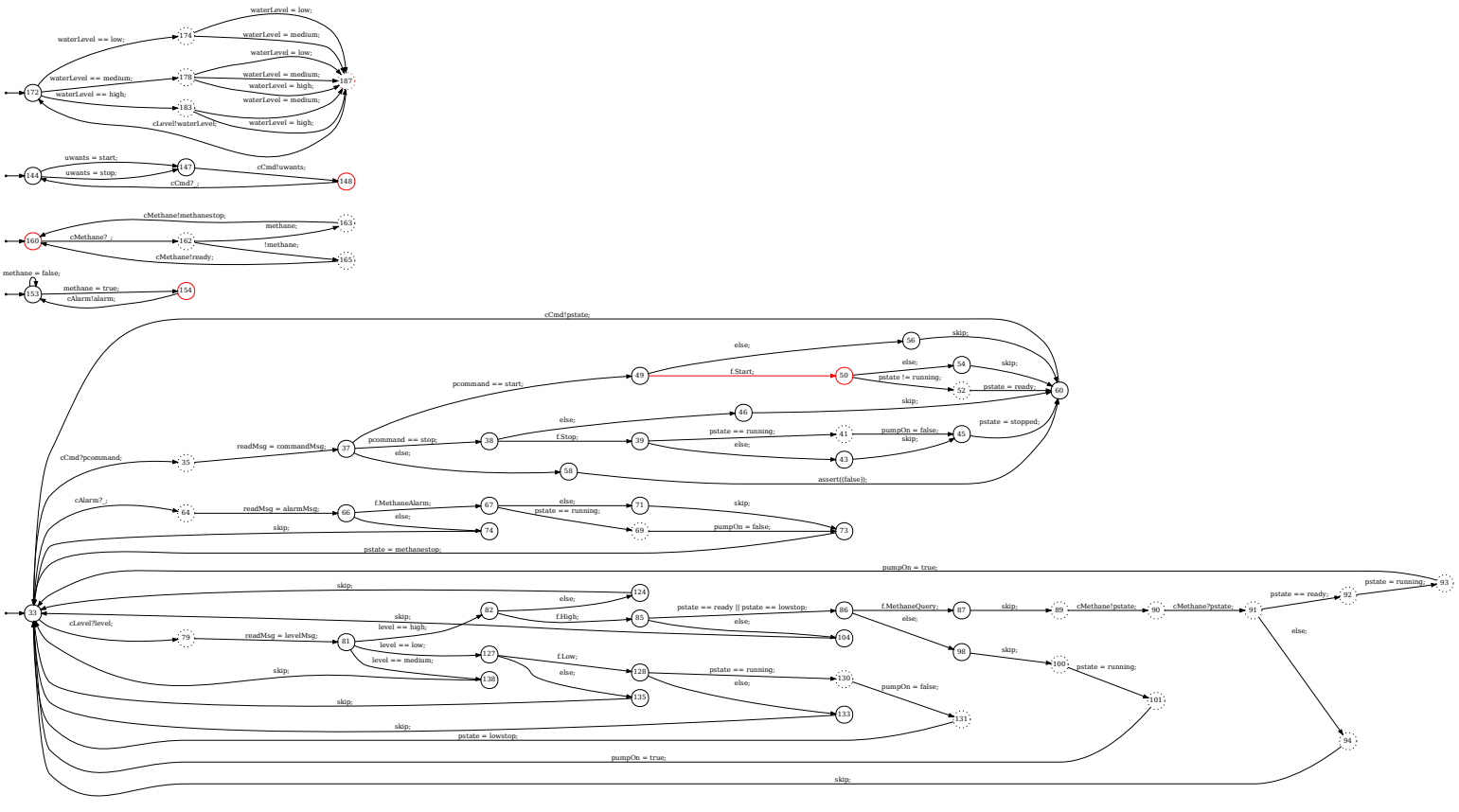
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
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uwants = start;
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cCmd!uwants;
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148
160
cMethane? ;
cMethane!methanestop;
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methane;
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pcommand == start;
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assert((false));
cAlarm? ;
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readMsg = alarmMsg;
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pstate = lowstop;
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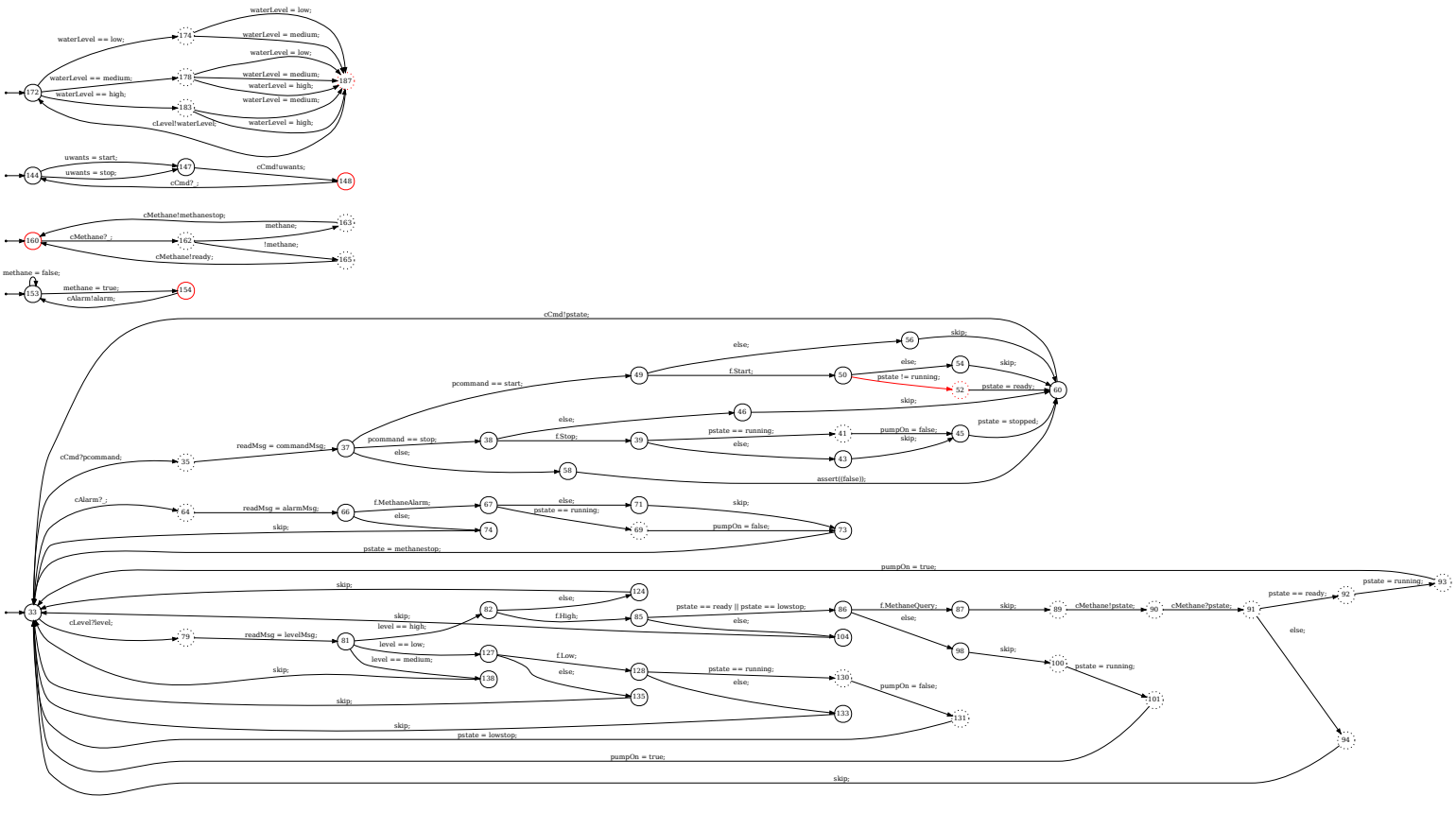
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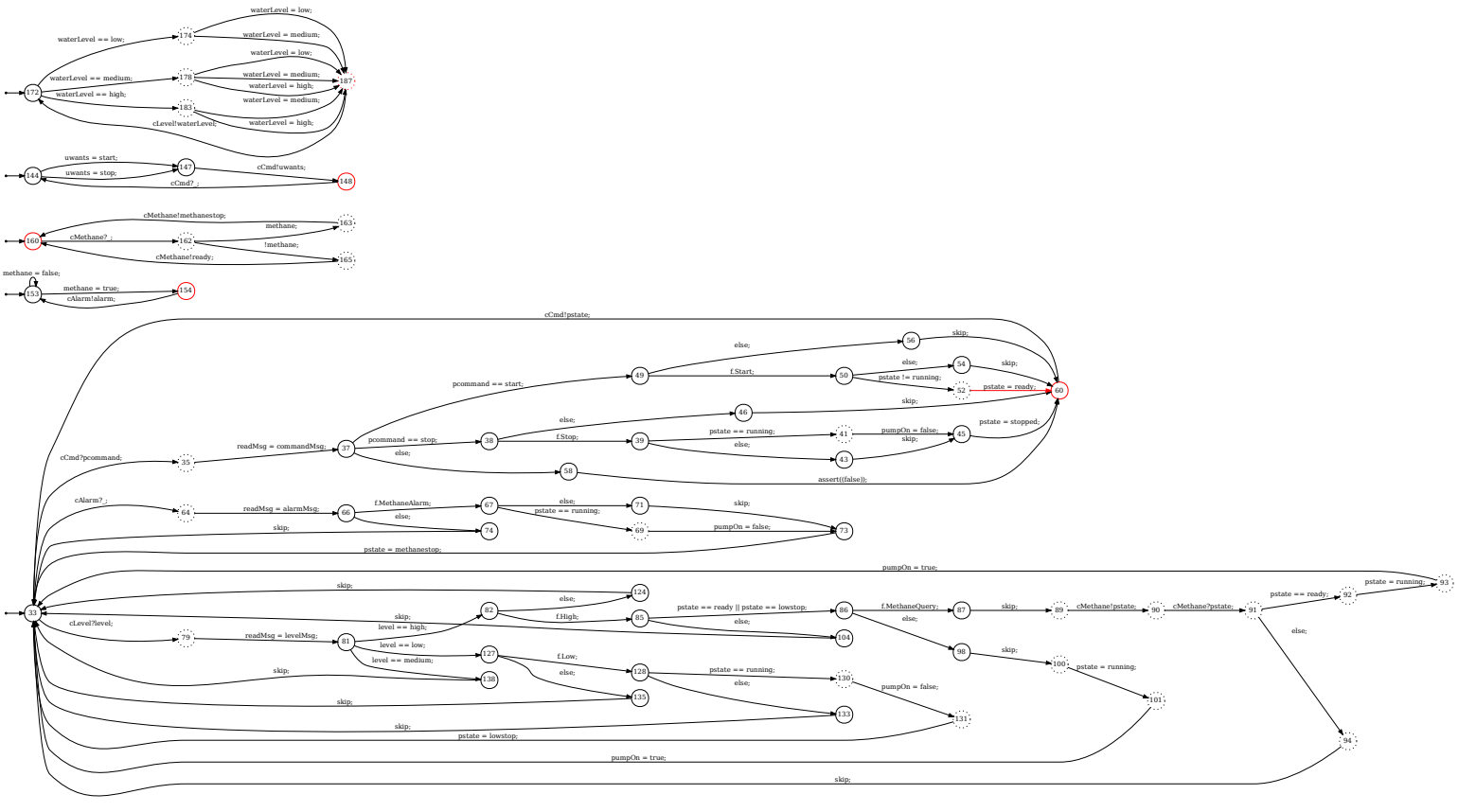
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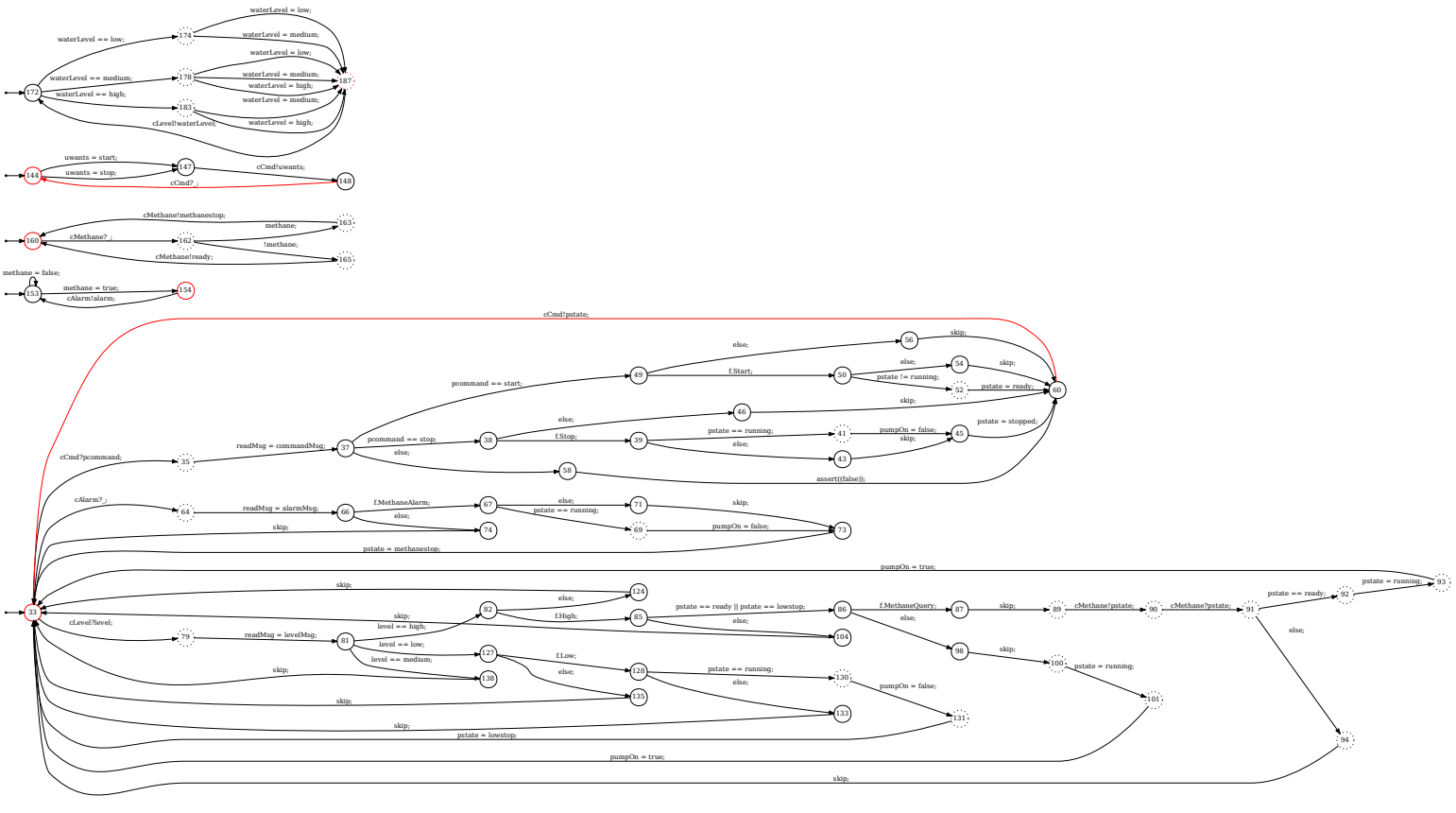
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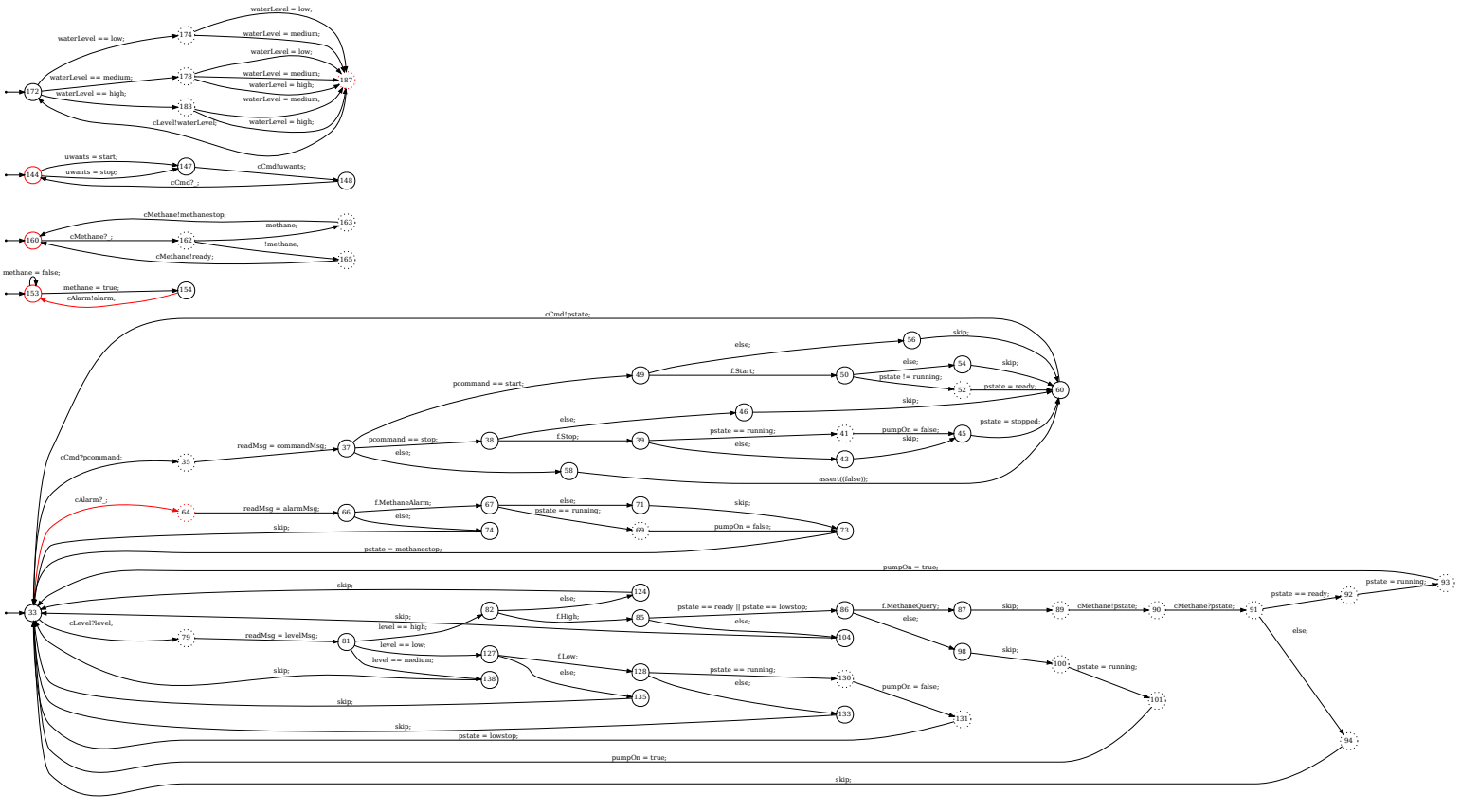
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
else;
43
skip;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
else;
pstate == running;
69
pumpOn = false;
74
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
104
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
98
skip;
100
pstate = running;
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138
135
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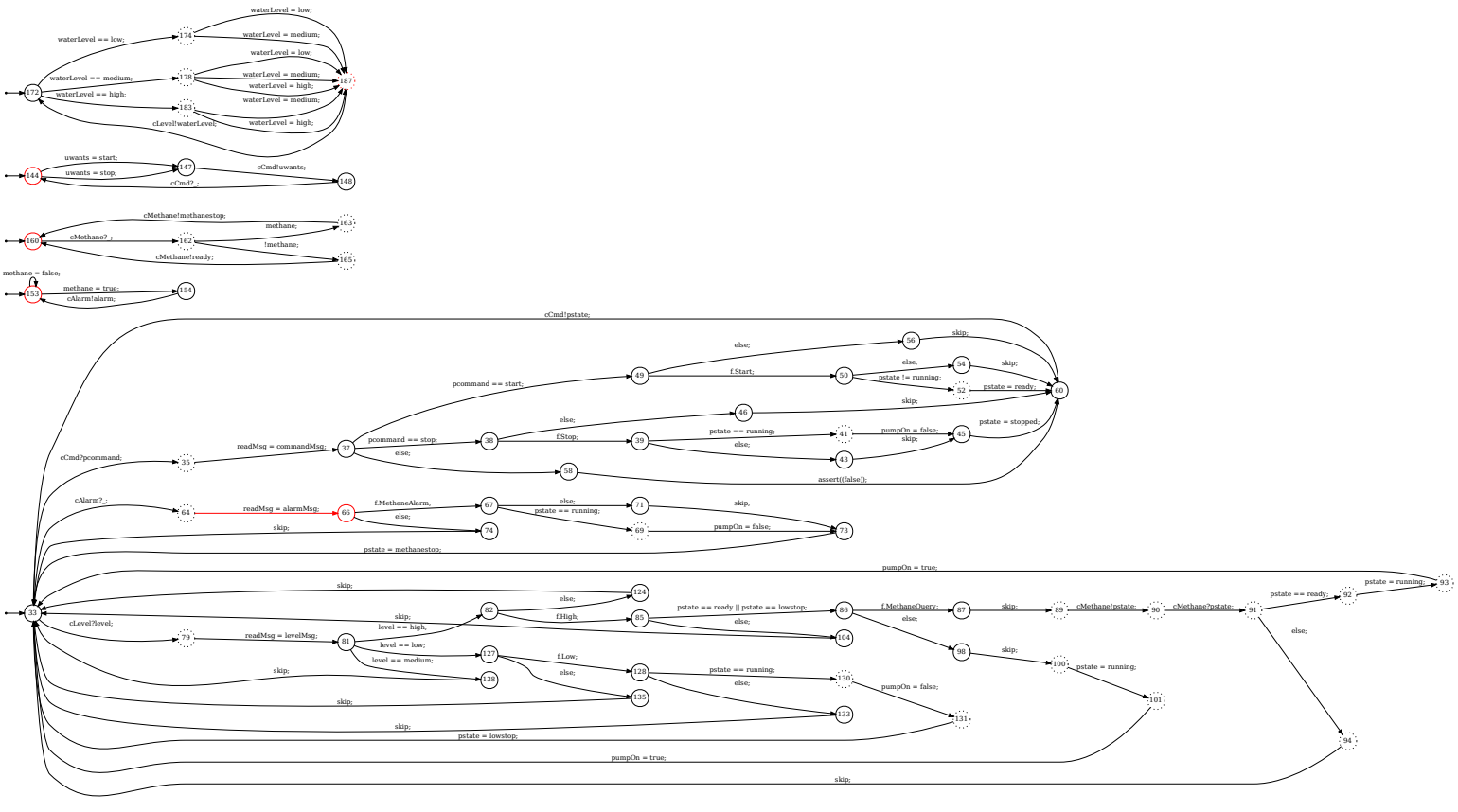
131
94
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel == medium;
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waterLevel = medium;
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183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
pcommand == stop;
else;
37
readMsg = commandMsg;
35
cCmd?pcommand;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
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skip;
124
else;
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f.High;
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readMsg = levelMsg;
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level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
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92
pstate = running;
93
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skip;
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pstate = running;
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pstate == running;
else;
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pumpOn = false;
133
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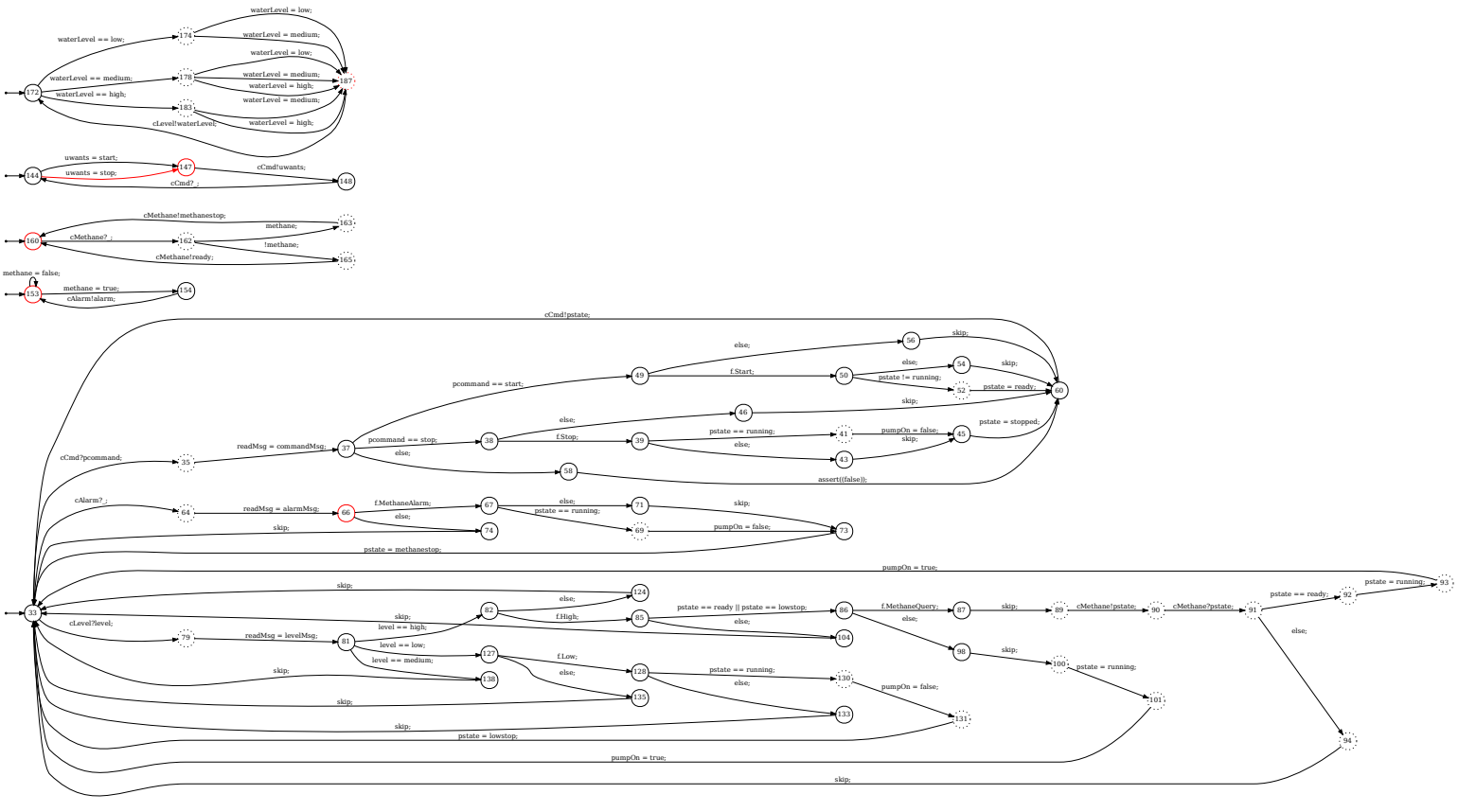
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
52
pstate != running;
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
else;
38
39
43
f.Stop;
pstate == running;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
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pumpOn = true;
skip;
124
else;
33
82
f.High;
85
pstate == ready || pstate == lowstop;
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81
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level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
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pumpOn = false;
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131
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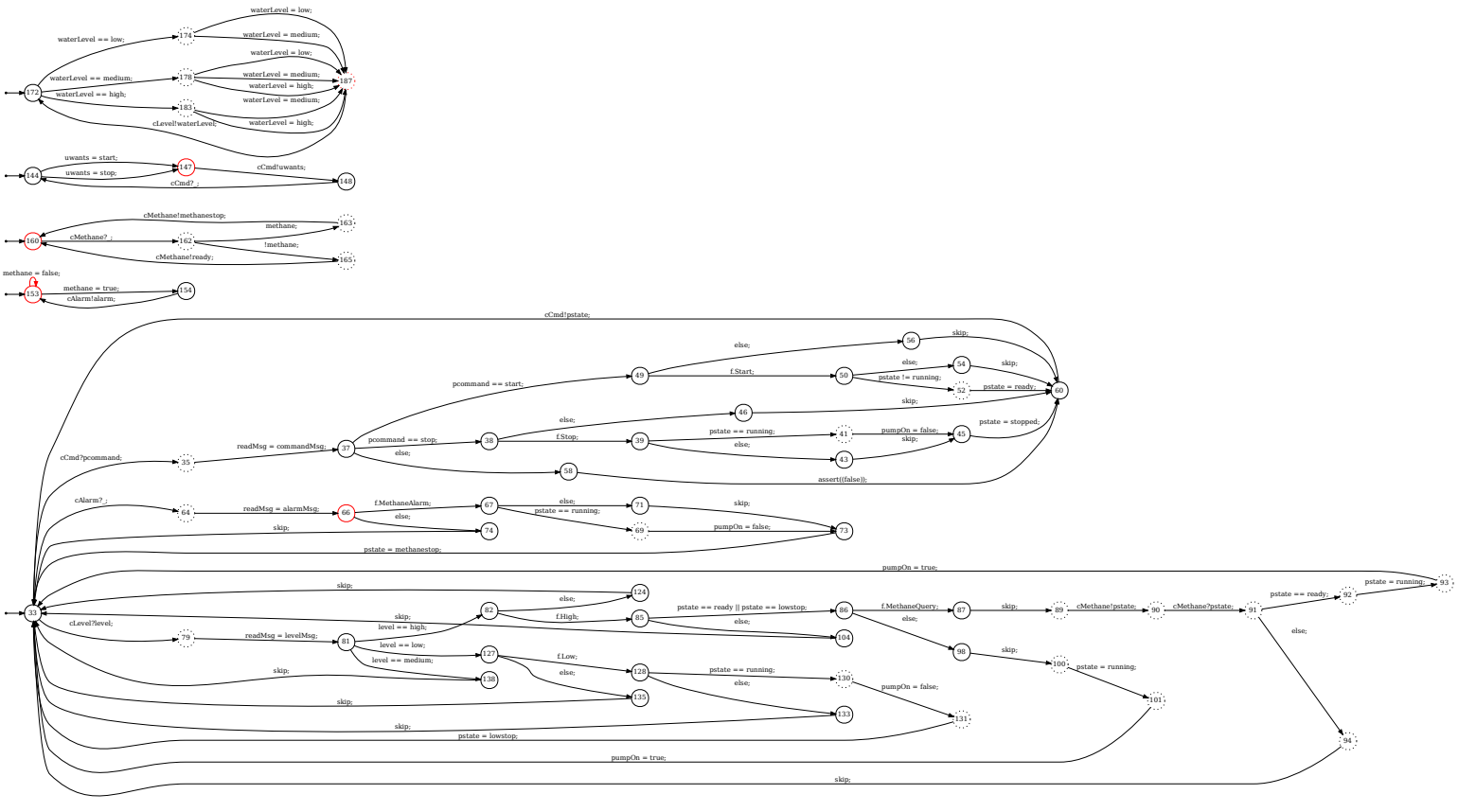
skip;
100
pstate = running;
101
138
135
skip;
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
54
52
50
49
60
else;
skip;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == start;
46
skip;
else;
41
45
pstate = stopped;
pstate == running;
pumpOn = false;
f.Stop;
39
else;
skip;
43
38
37
35
58
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
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else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
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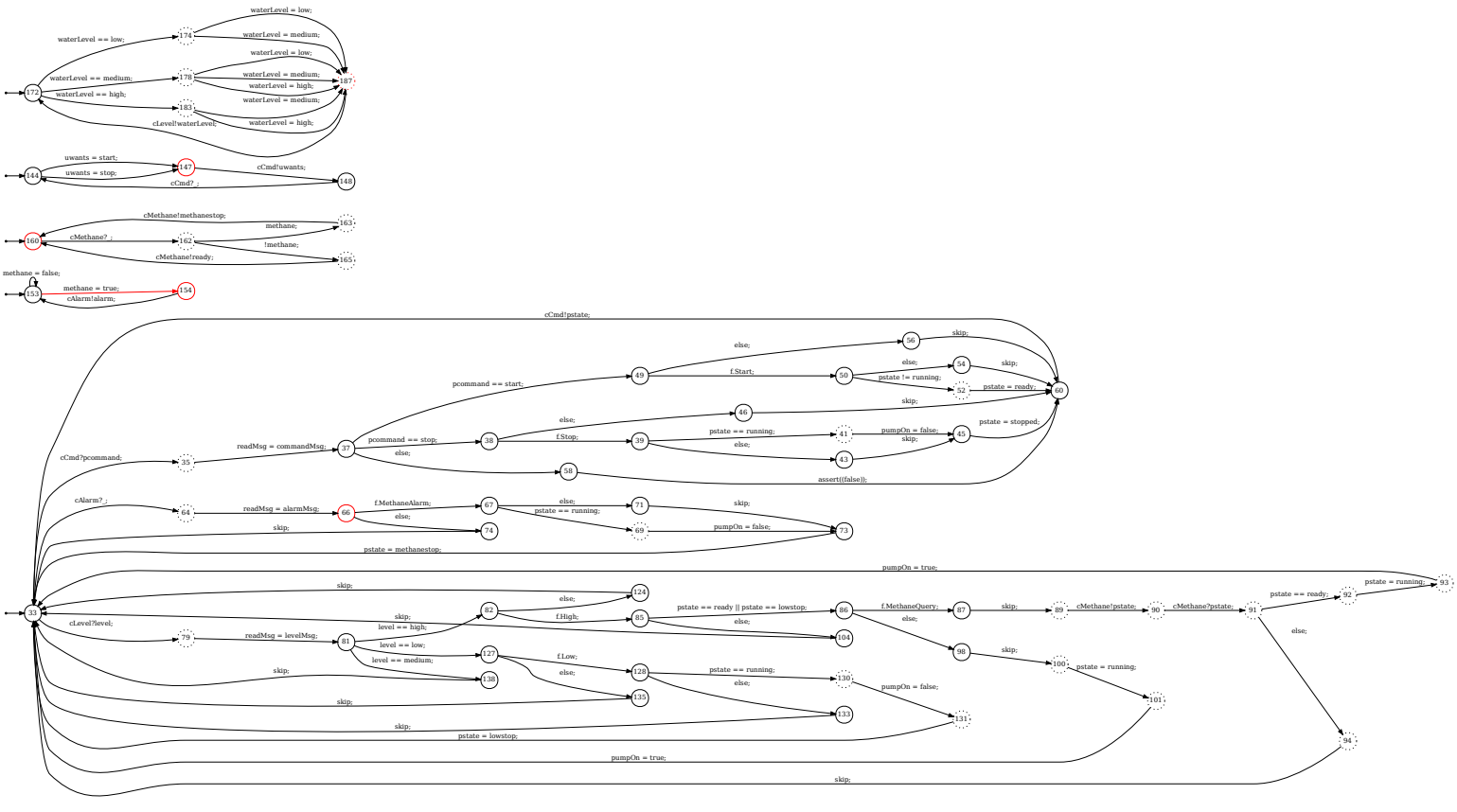
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
131
133
else;
98
skip;
100
pstate = running;
101
94
138
135
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
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39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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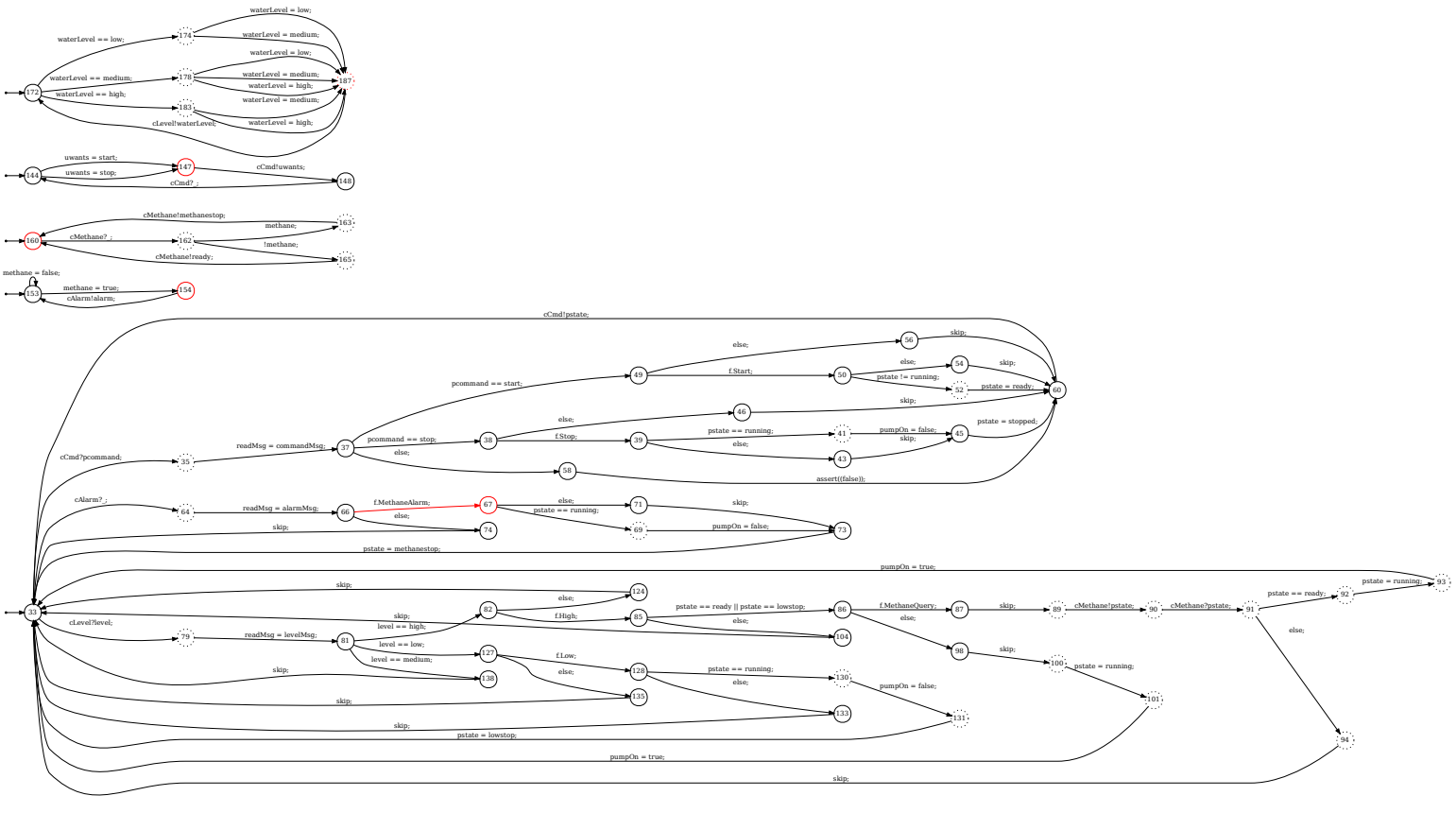
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
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pstate = running;
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pstate == running;
else;
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skip;
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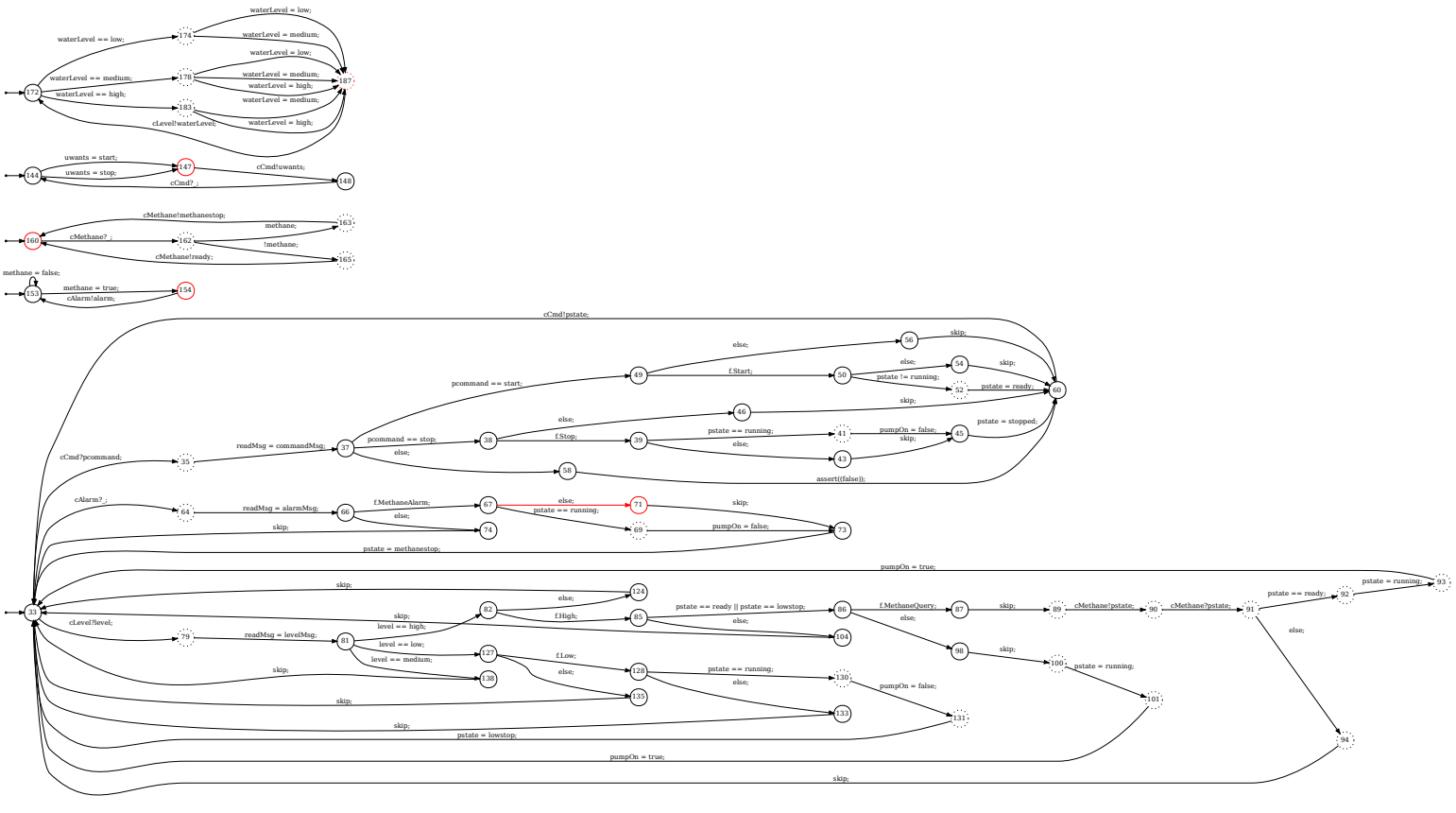
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
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98
100
101
104
124
127
128
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131
133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
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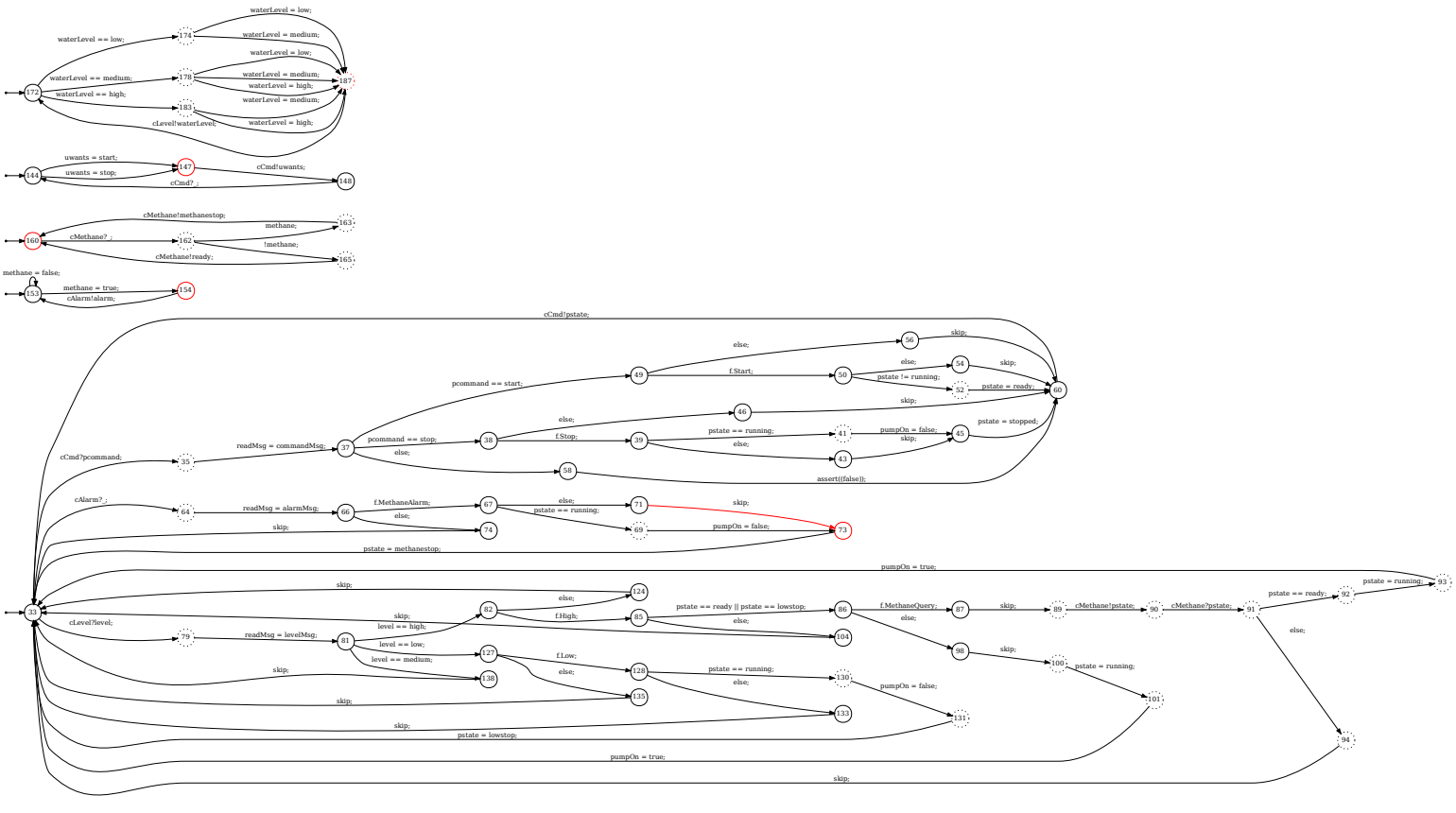
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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
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154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
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46
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50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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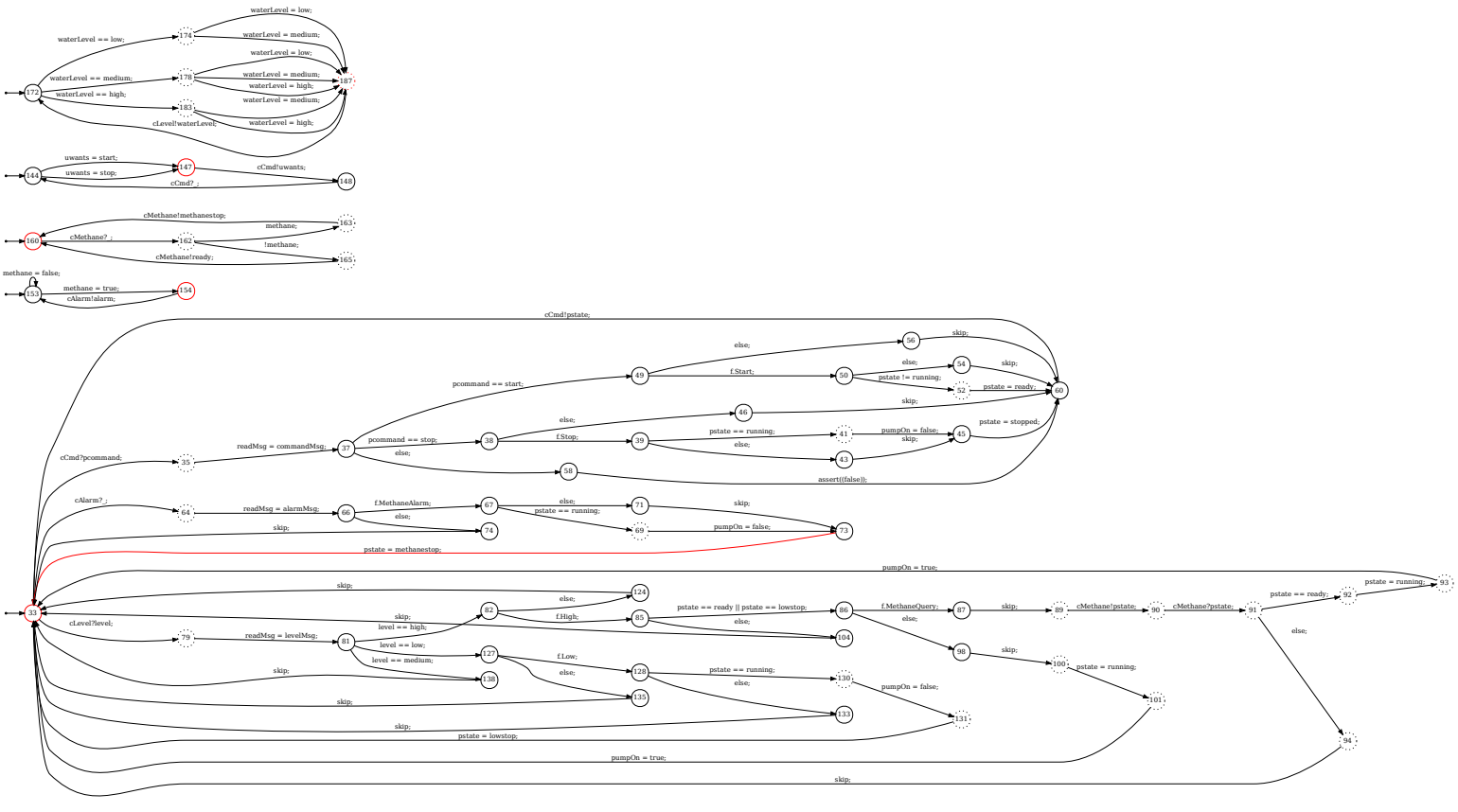
94
98
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel = low;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
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waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
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cMethane? ;
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cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
130
else;
pumpOn = false;
101
skip;
135
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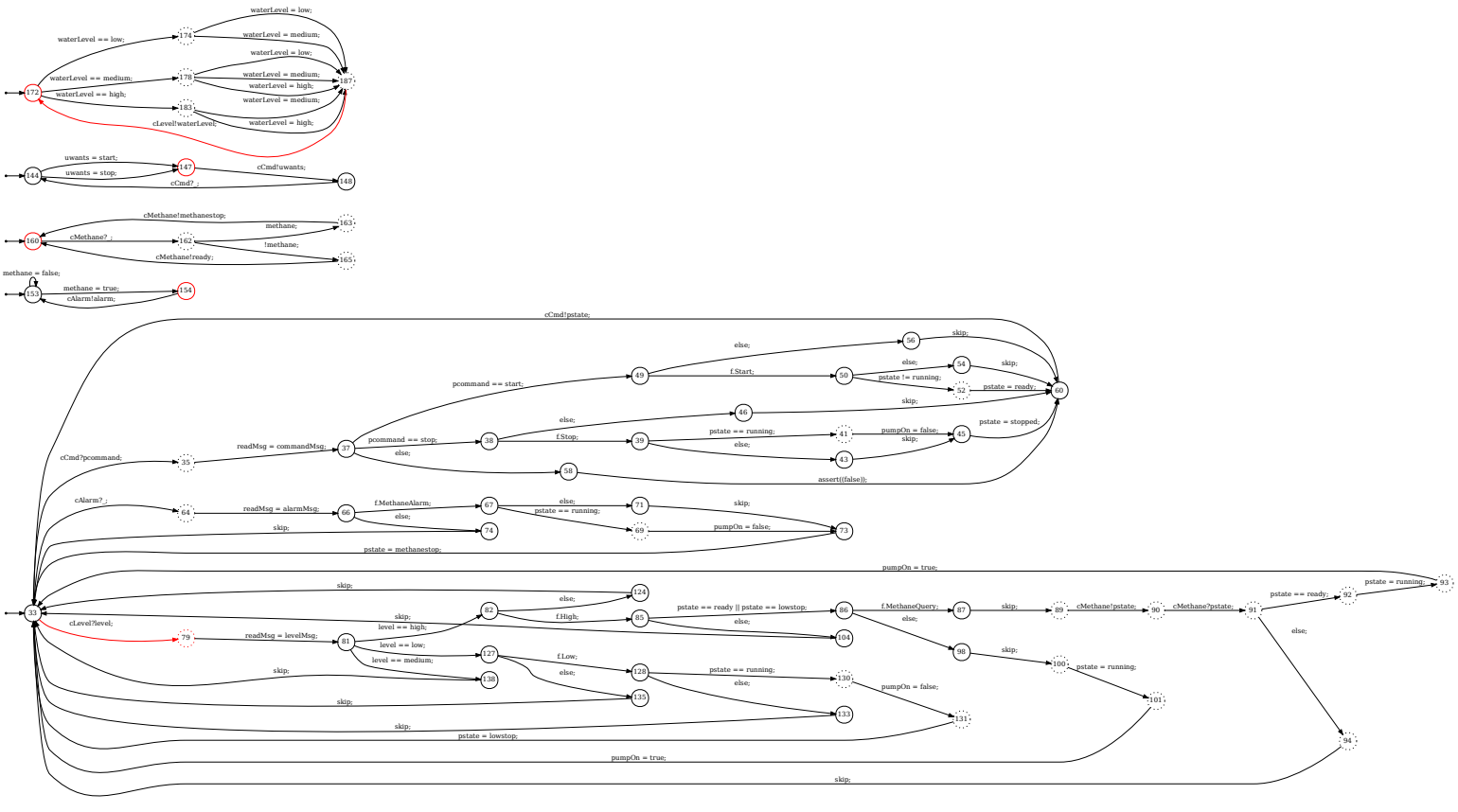
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
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waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
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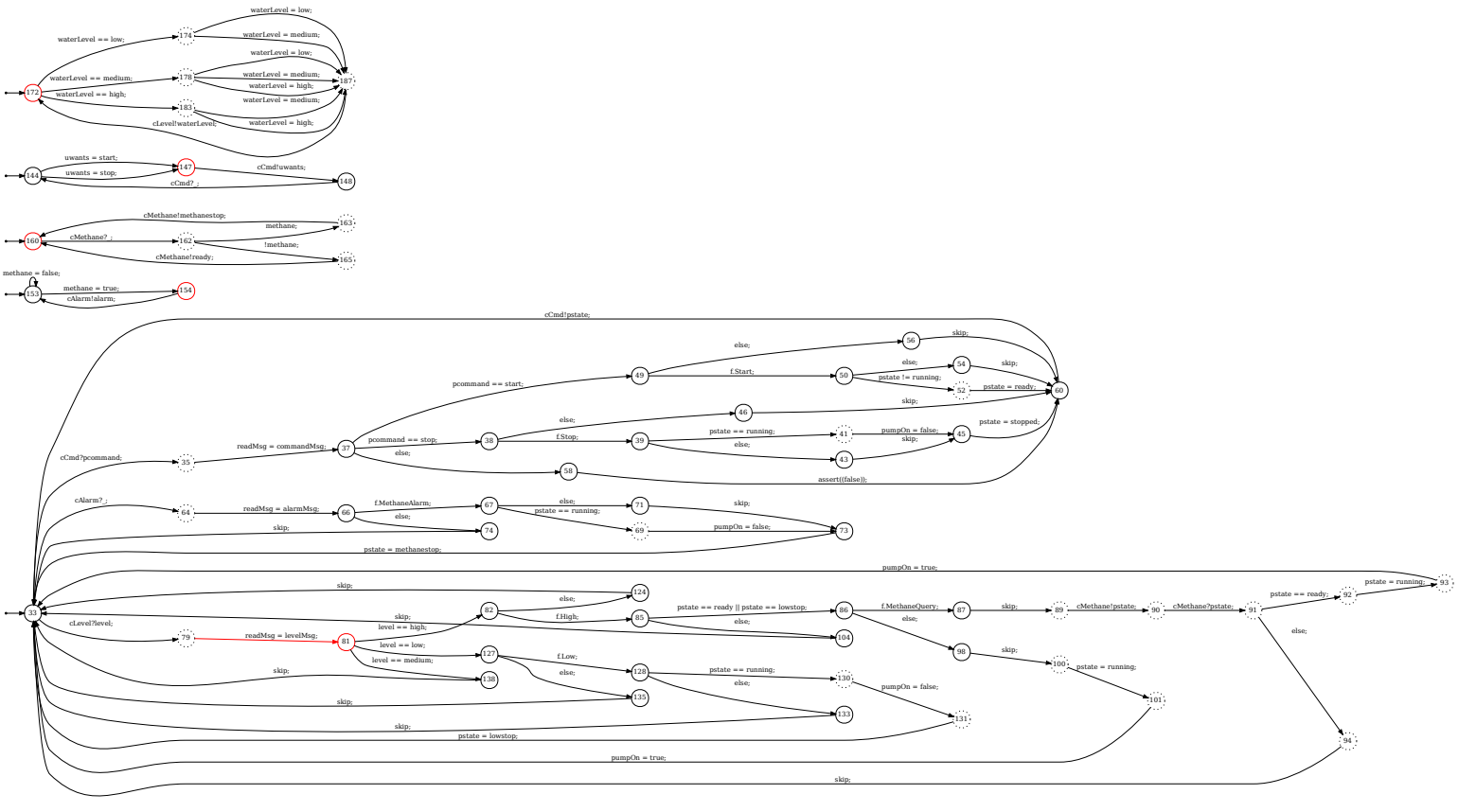
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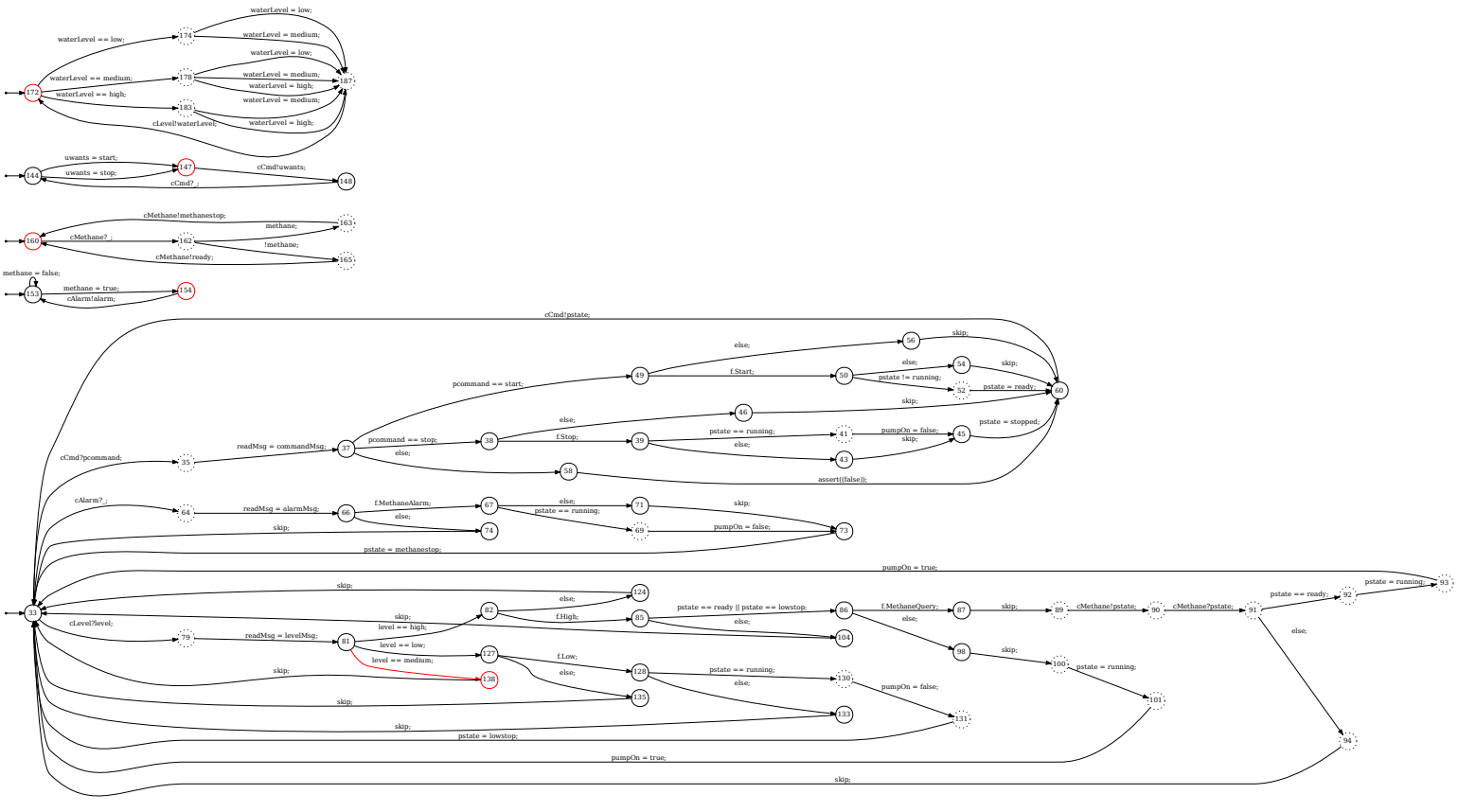
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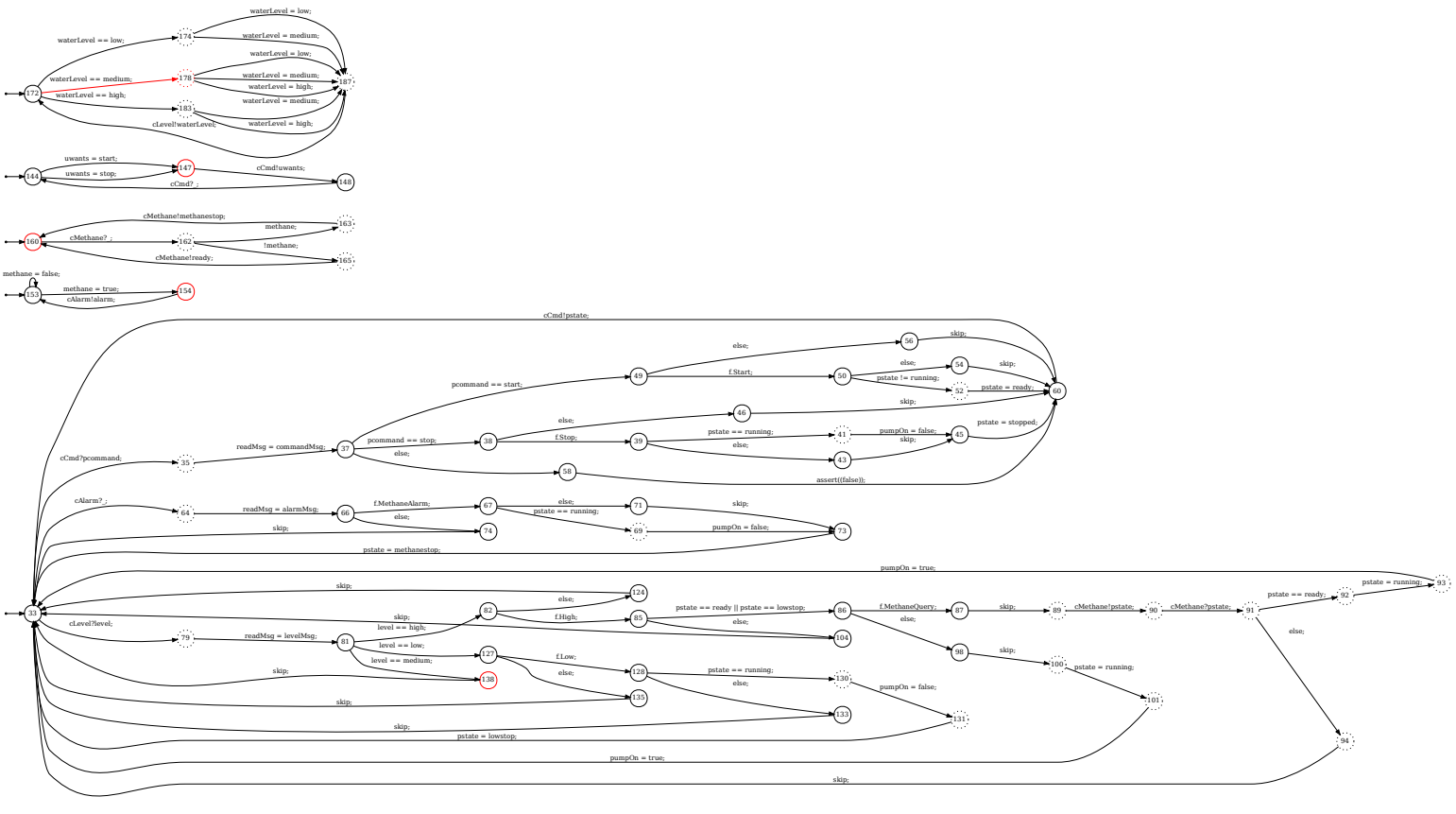
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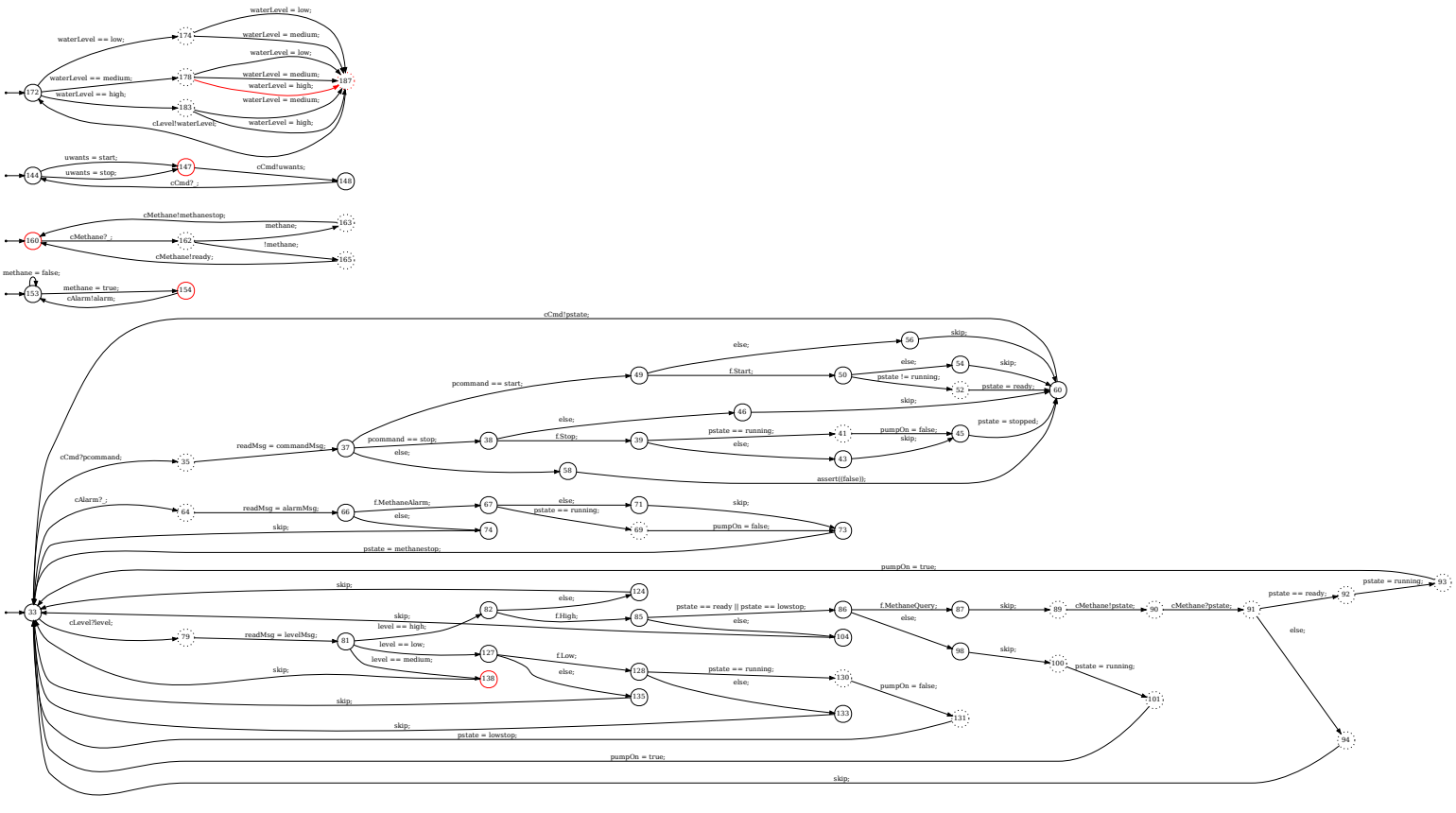
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waterLevel = high;
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waterLevel = high;
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methane;
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56
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pstate = methanestop;
pumpOn = true;
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cMethane?pstate;
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cMethane!pstate;
89
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100
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101
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else;
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else;
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f.High;
85
else;
104
skip;
level == high;
86
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
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skip;
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cLevel?level;
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readMsg = levelMsg;
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level == low;
level == medium;
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f.Low;
else;
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pstate == running;
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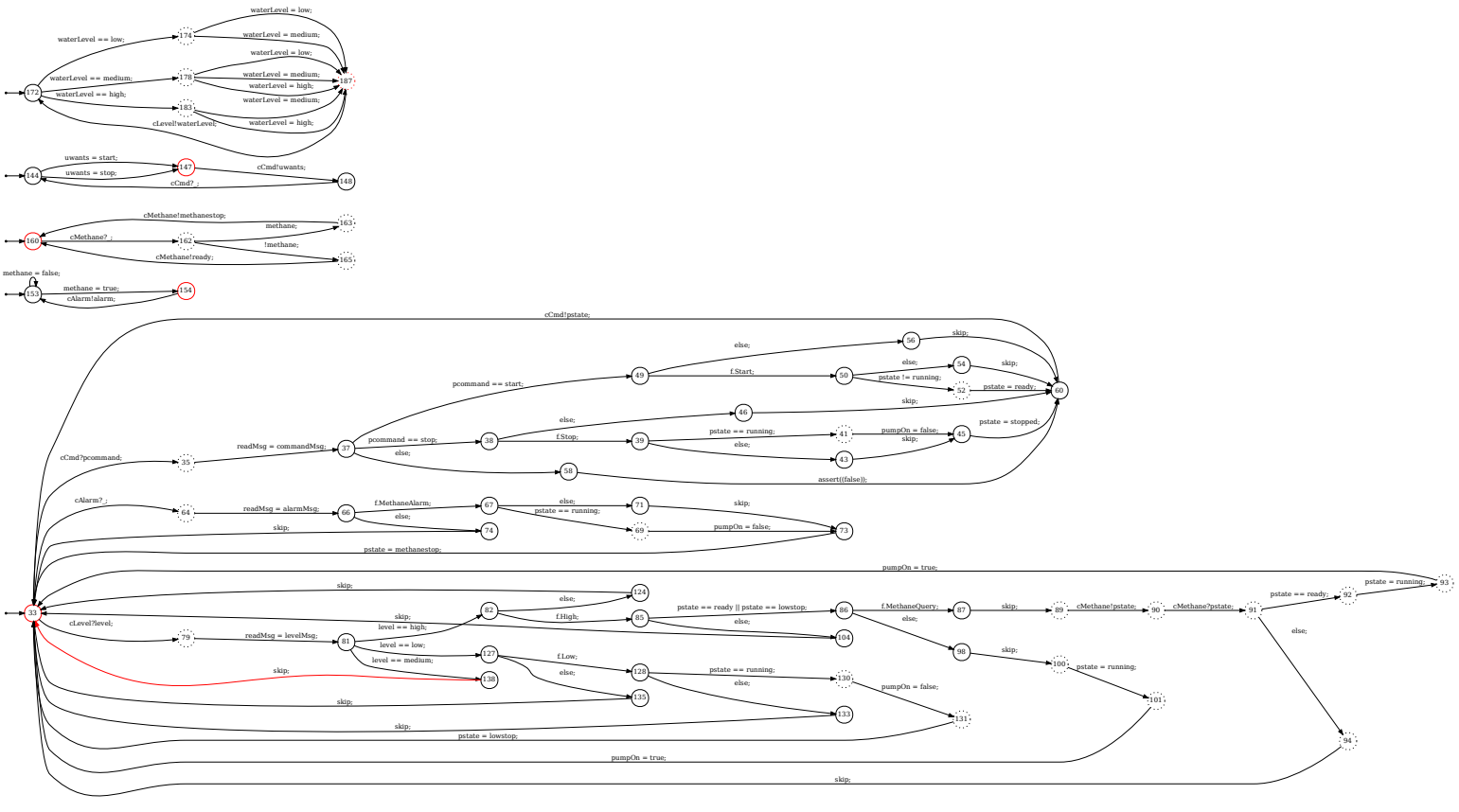
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
f.Start;
skip;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
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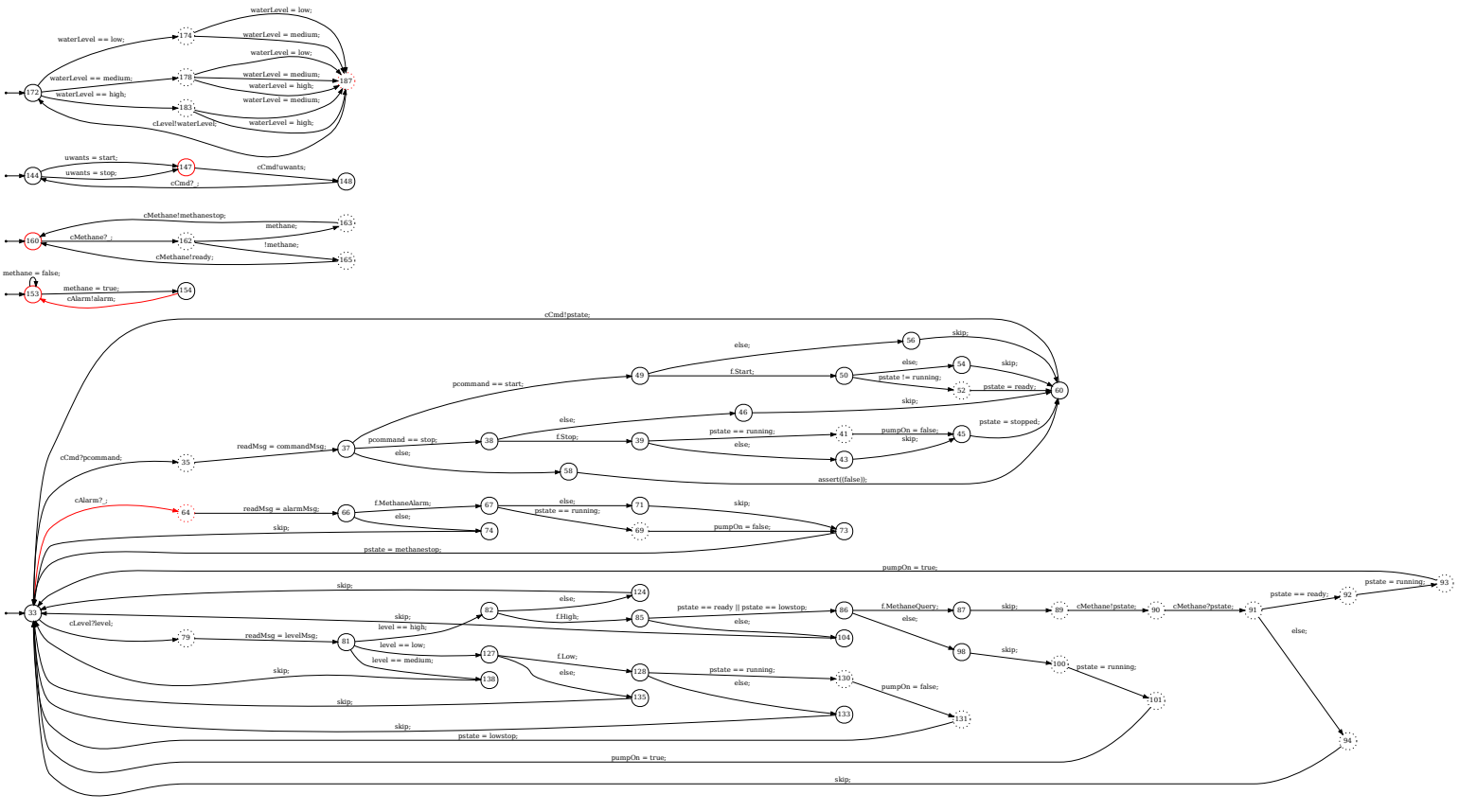
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waterLevel == low;
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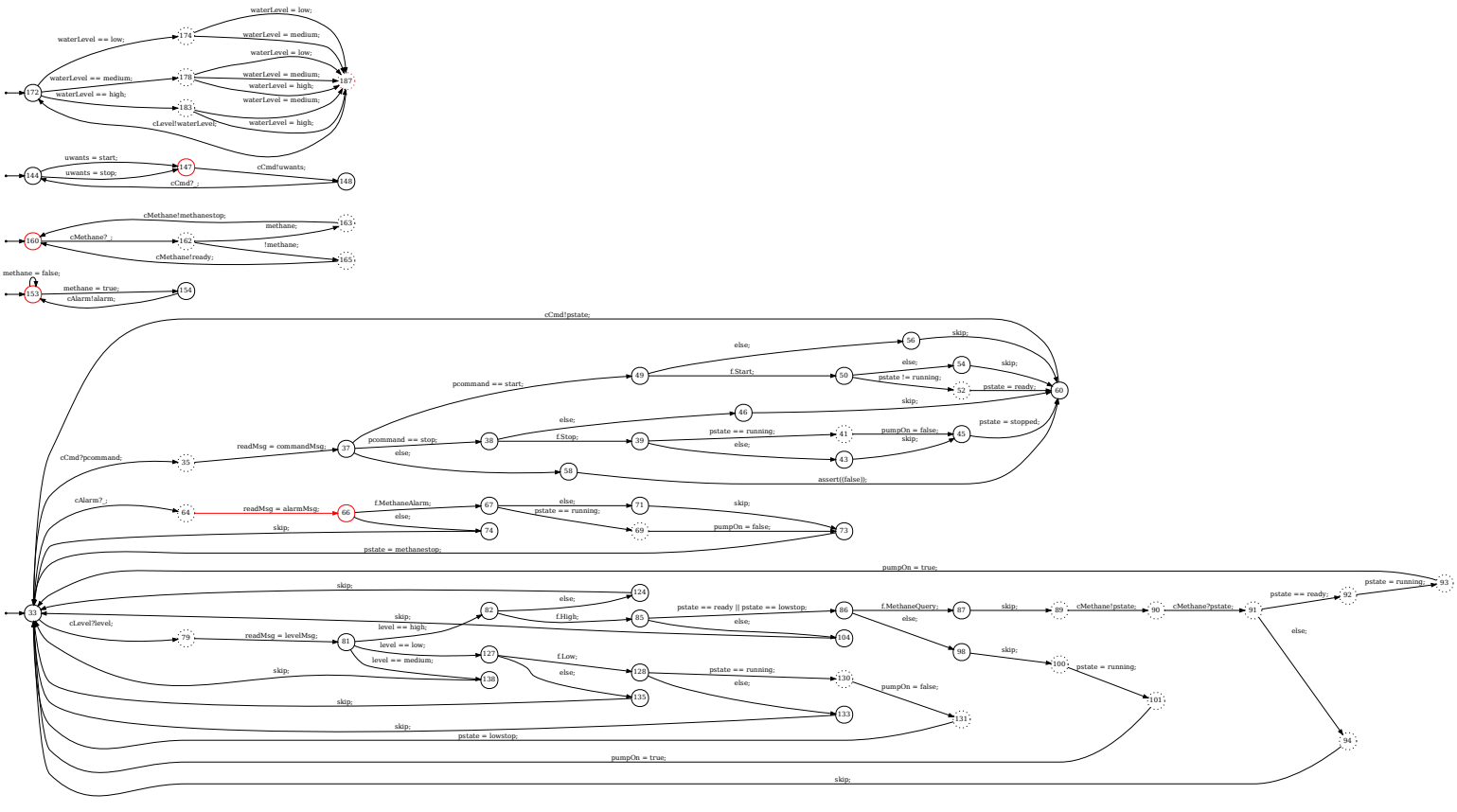
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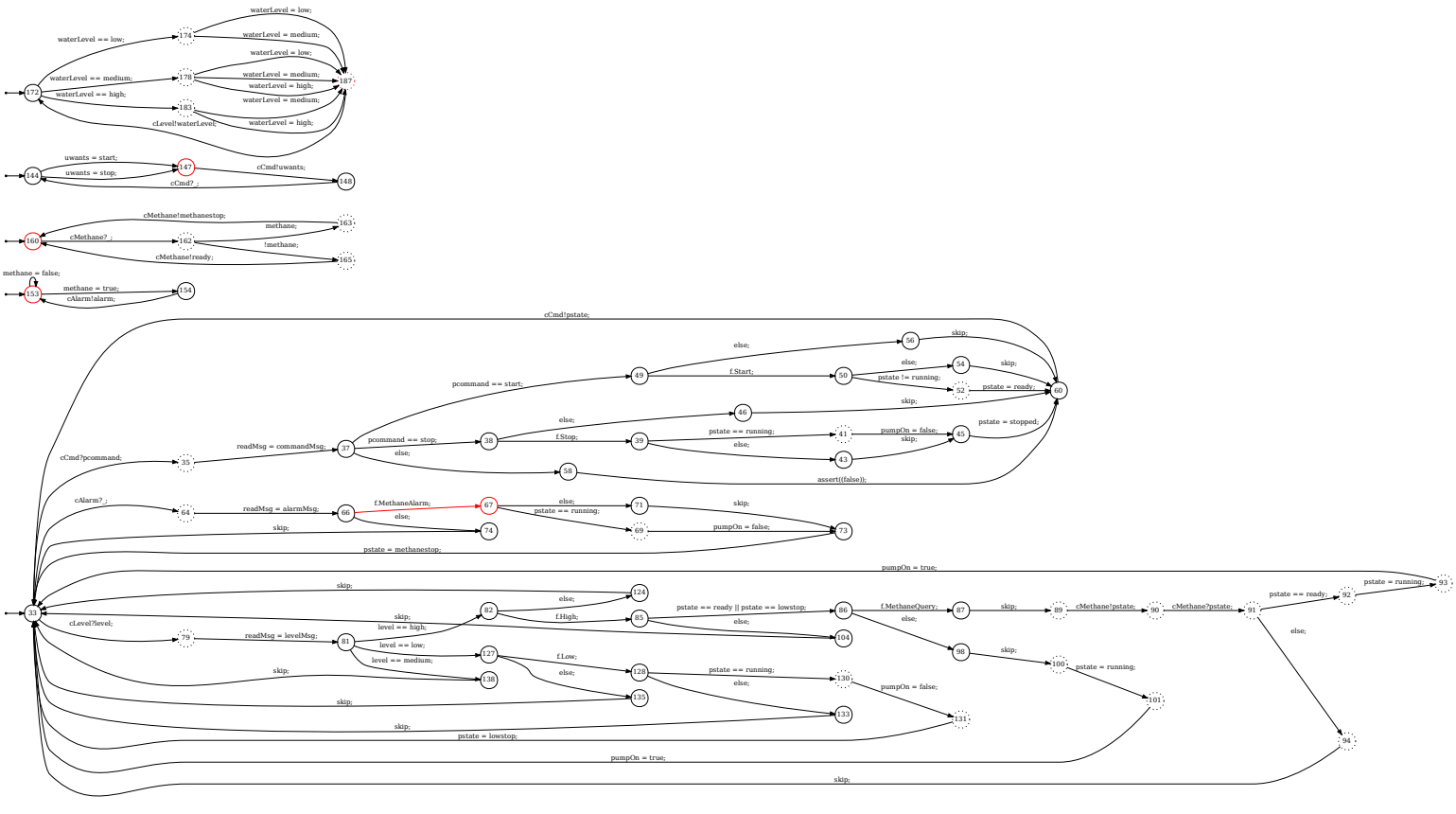
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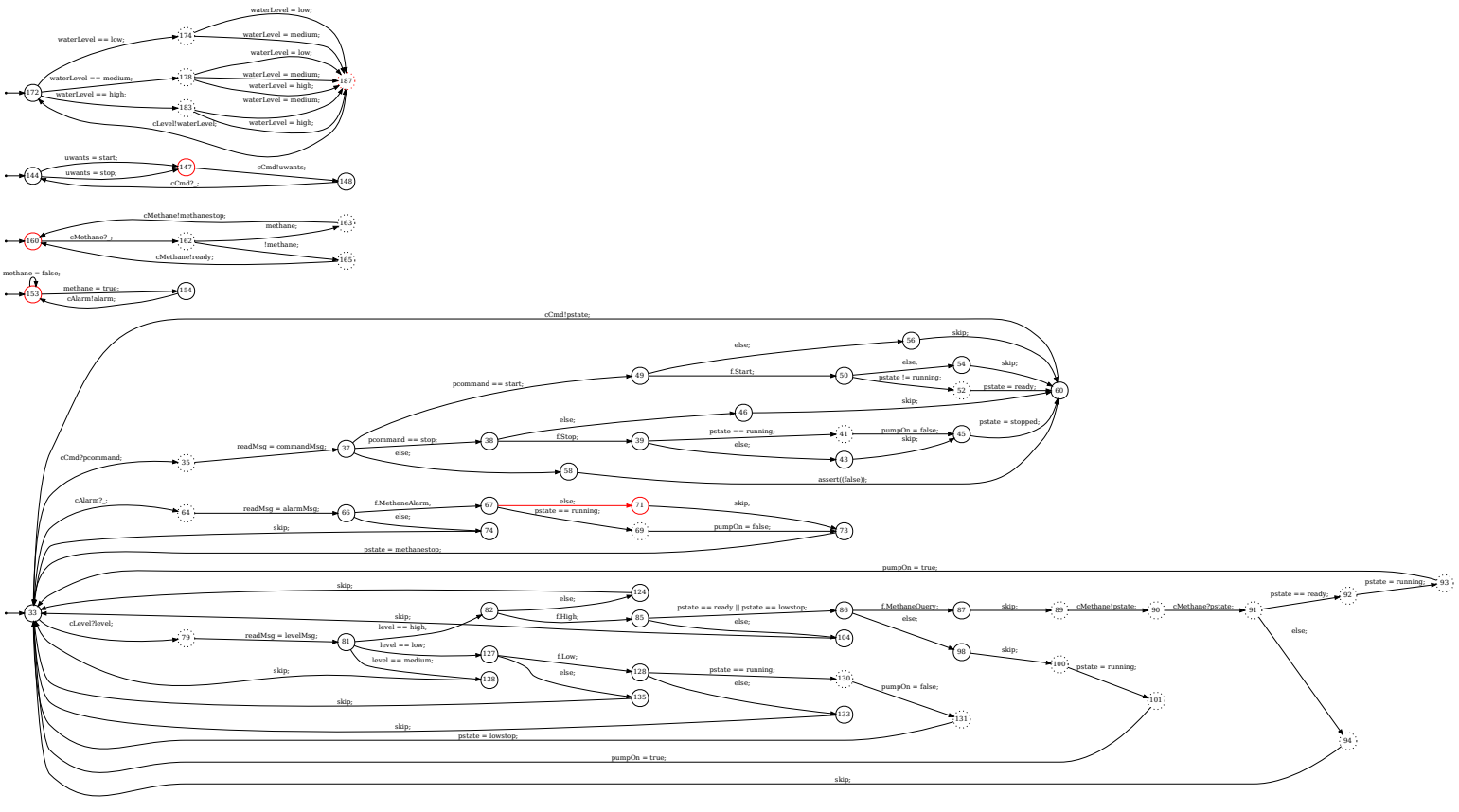
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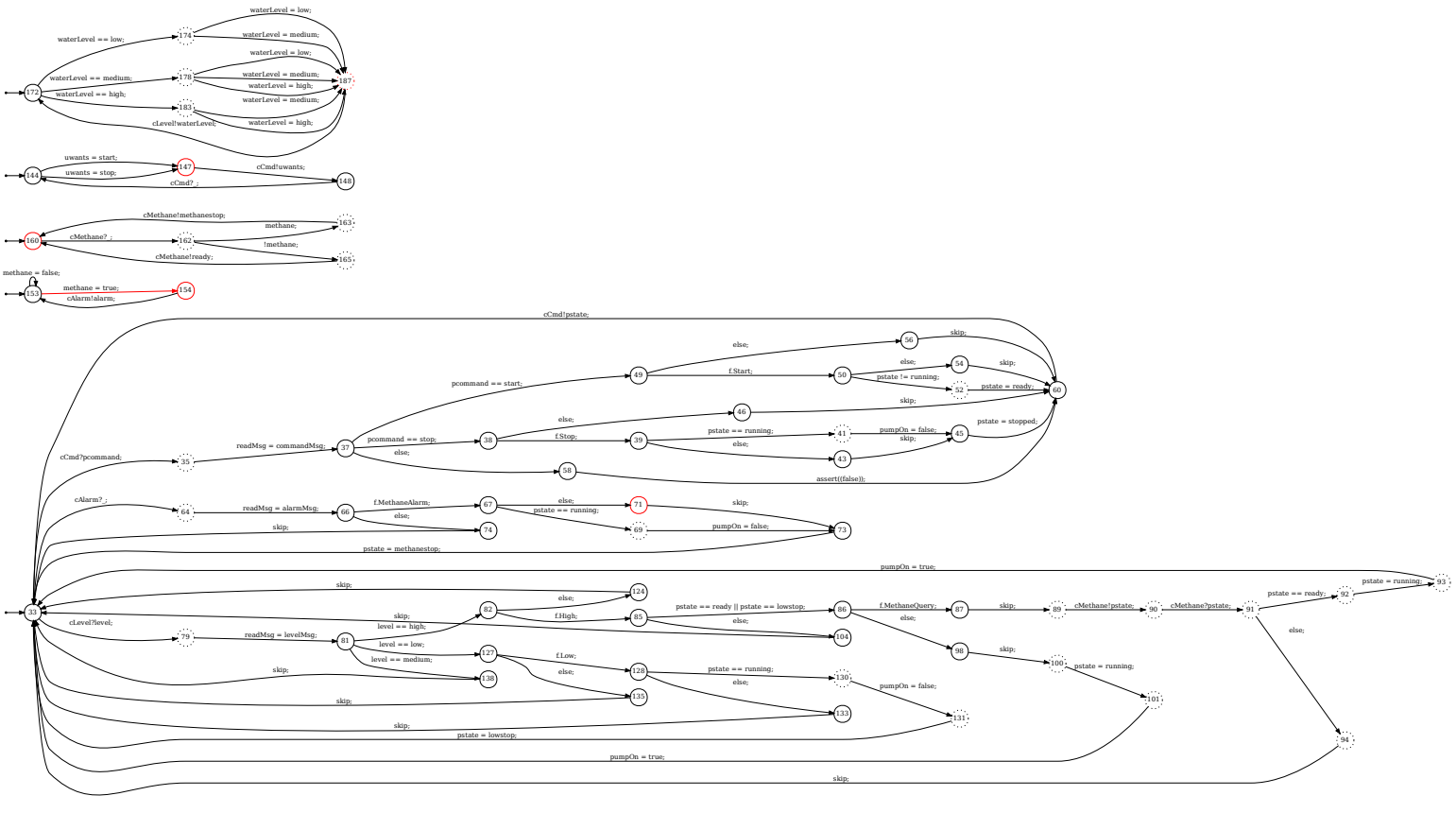
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
131
133
pumpOn = false;
pumpOn = true;
skip;
89
skip;
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
94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waterLevel == low;
waterLevel = low;
waterLevel = medium;
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waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
38
f.Stop;
39
else;
skip;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
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cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
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f.Low;
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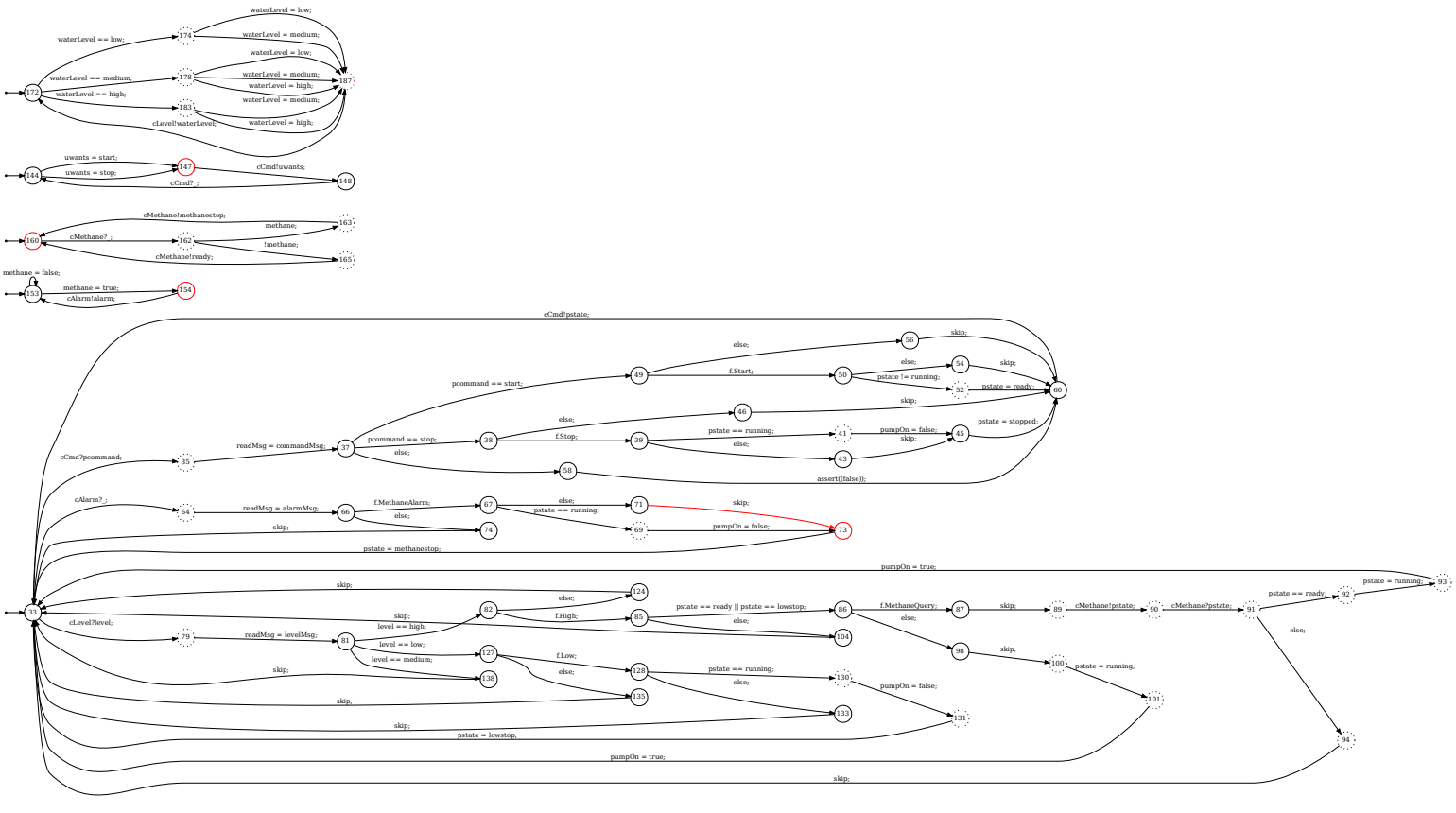
128
else;
135
133
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
130
else;
pumpOn = false;
131
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
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69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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92
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94
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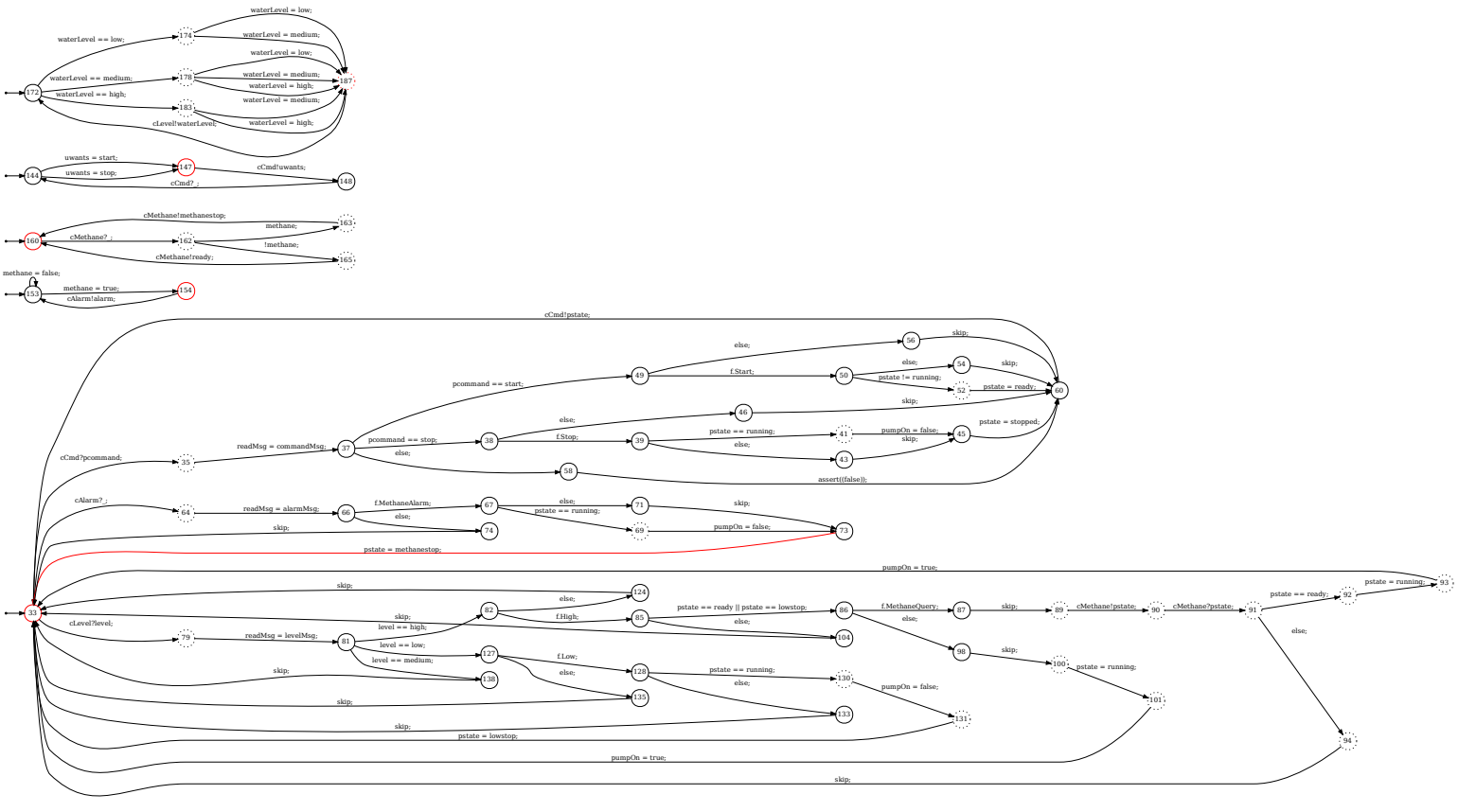
100
101
104
124
127
128
130
131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;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waterLevel = medium;
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waterLevel == medium;
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waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
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methane;
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153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
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f.Stop;
39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
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readMsg = commandMsg;
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pcommand == stop;
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58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
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else;
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skip;
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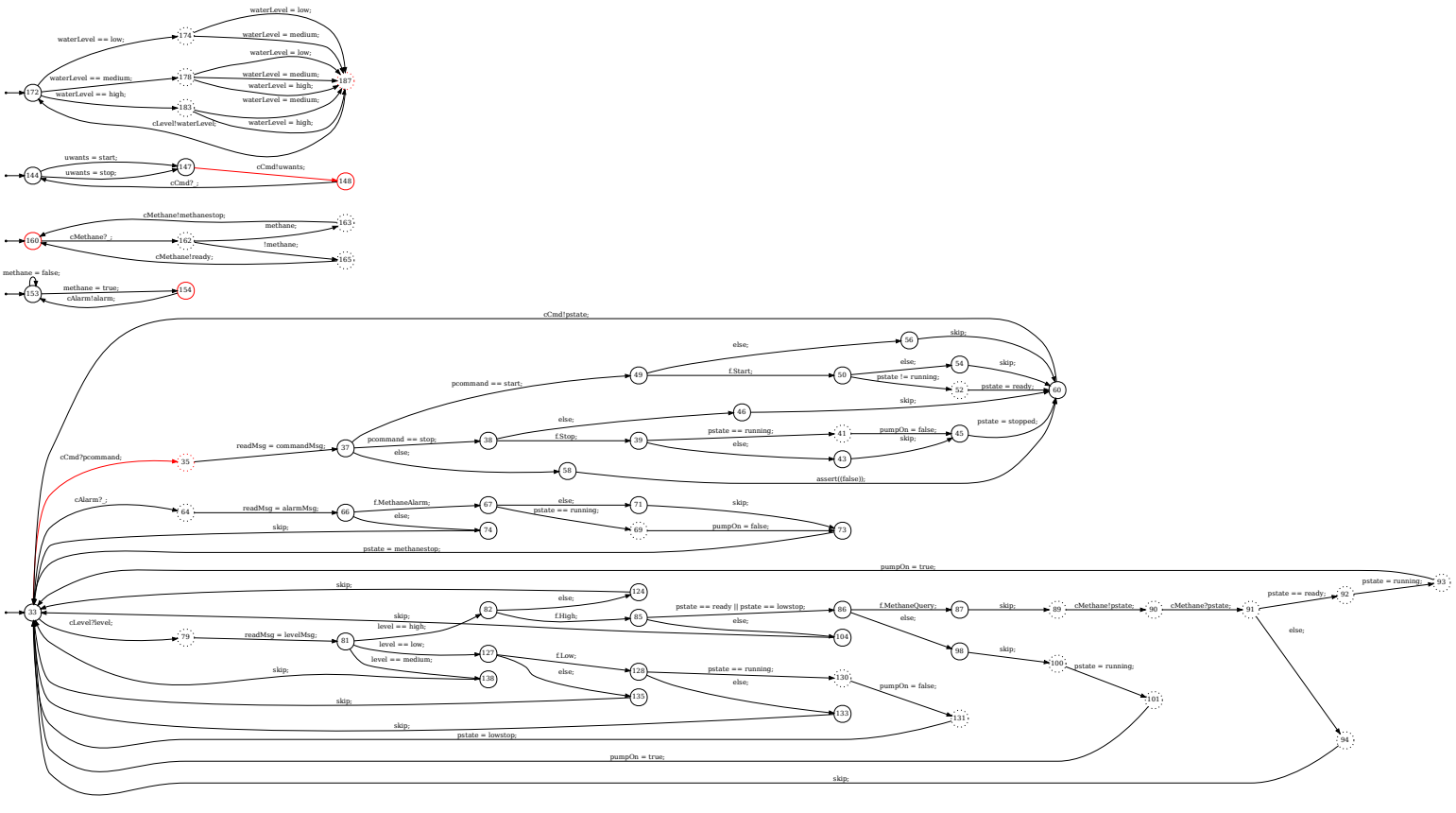
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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pstate == running;
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else;
pumpOn = false;
131
pstate == ready;
92
pstate = running;
93
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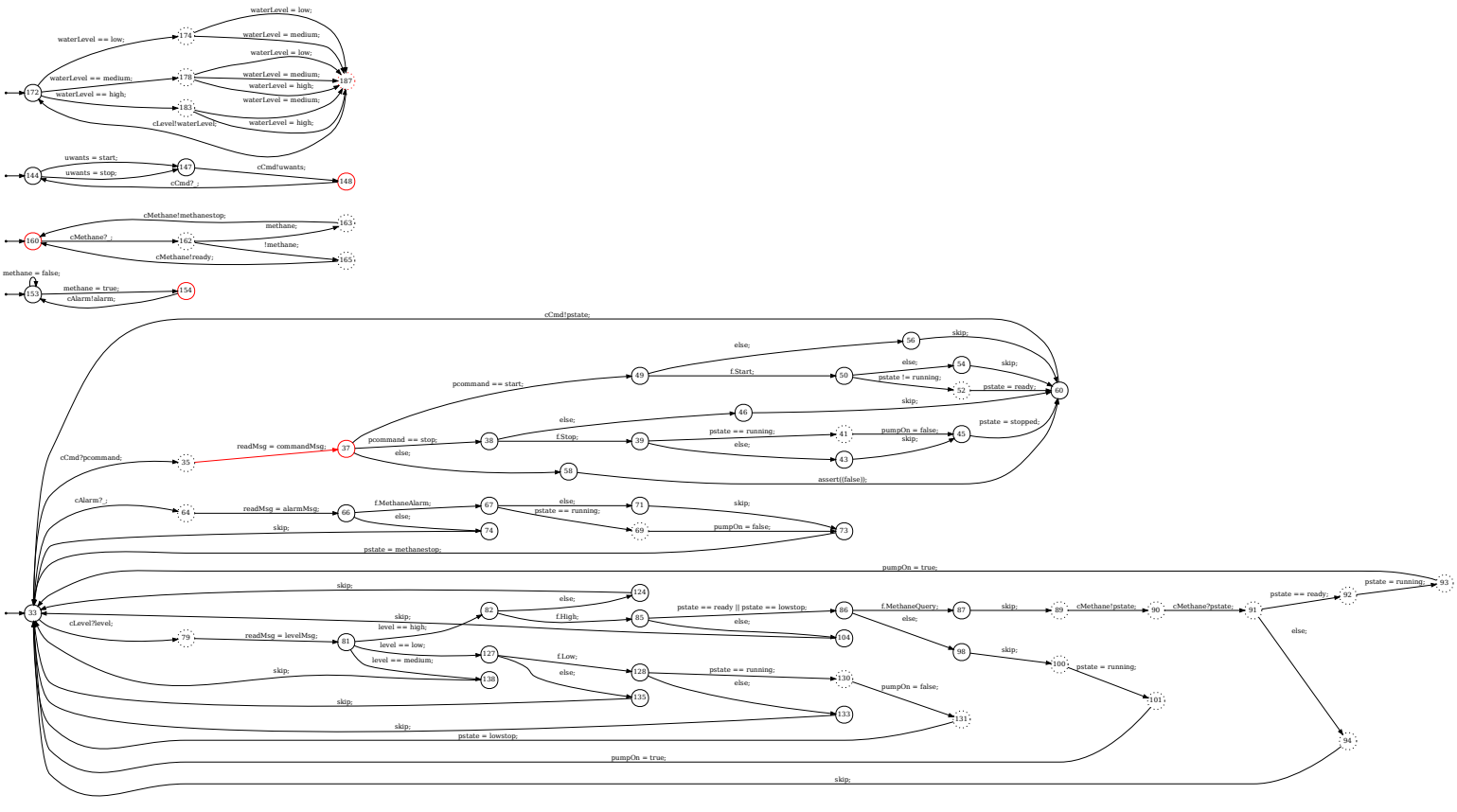
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
else;
43
else;
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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else;
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131
pstate = lowstop;
pumpOn = true;
skip;
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pstate = ready;
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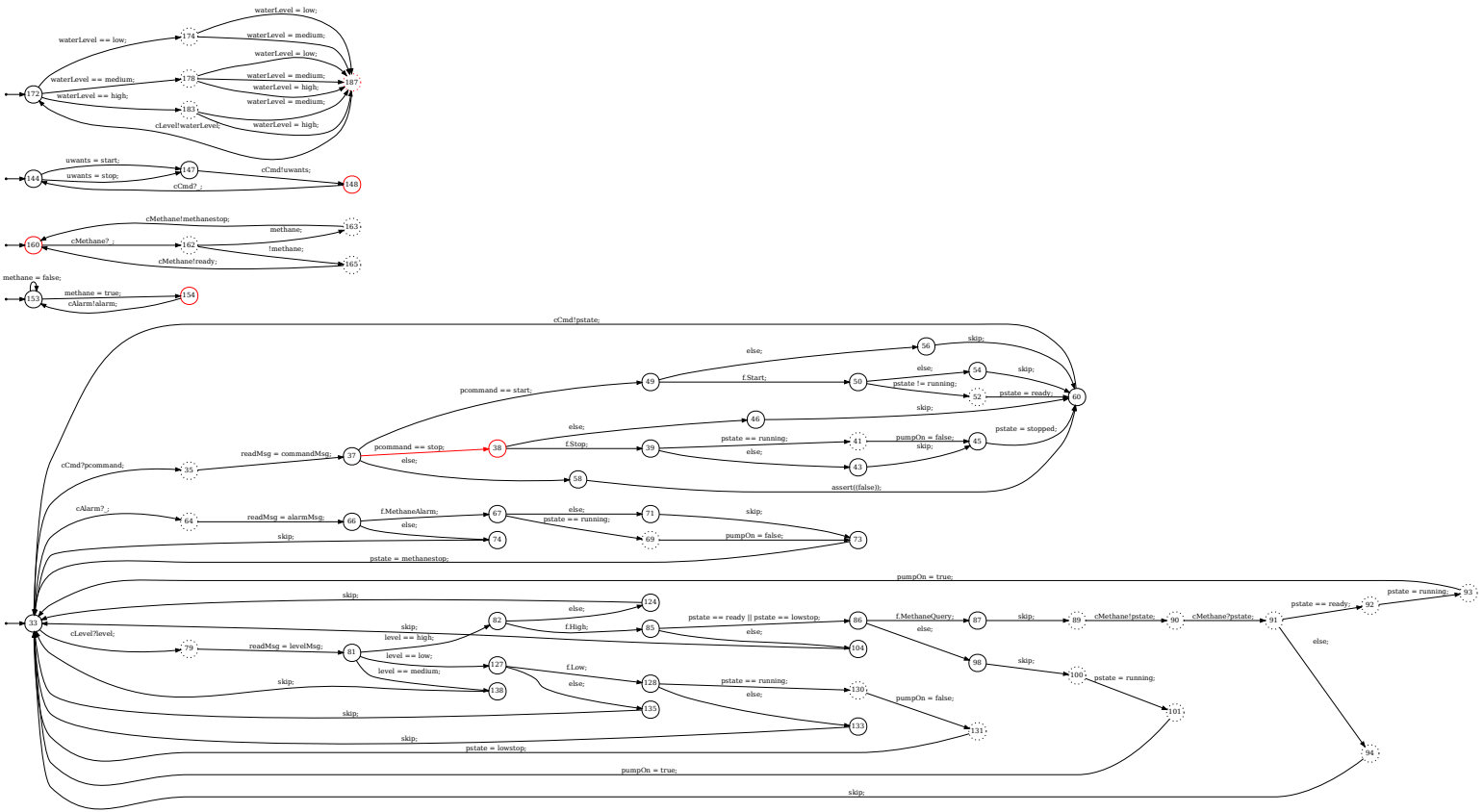
94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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
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187
144
uwants = start;
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cCmd!uwants;
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cMethane? ;
cMethane!methanestop;
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methane;
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cMethane!ready;
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methane = false;
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cCmd!pstate;
56
skip;
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54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
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skip;
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38
f.Stop;
39
pstate == running;
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pumpOn = false;
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pstate = stopped;
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skip;
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58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
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pcommand == stop;
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cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
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74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
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124
else;
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f.High;
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readMsg = levelMsg;
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skip;
level == high;
level == low;
level == medium;
127
f.Low;
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128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
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skip;
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else;
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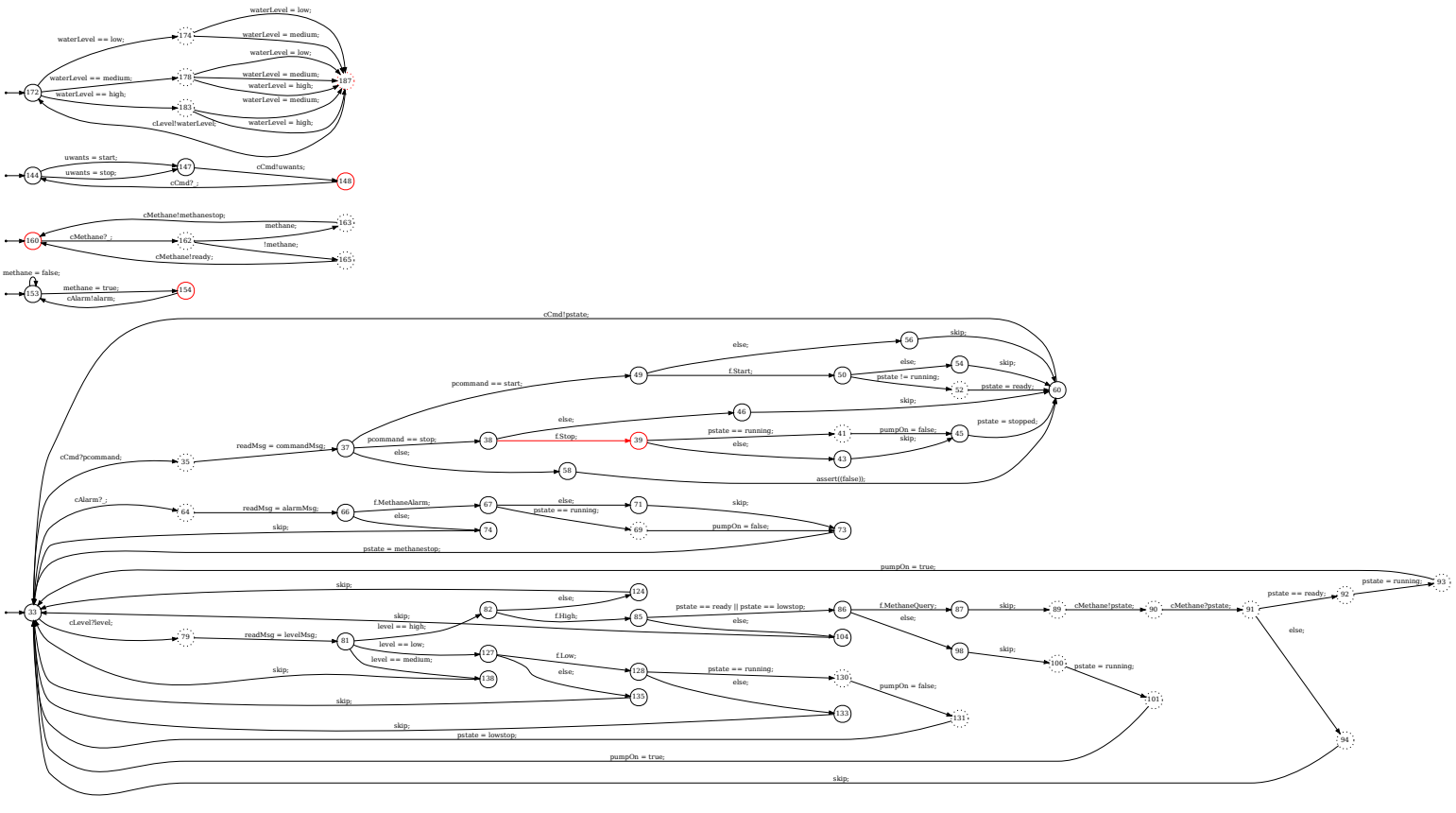
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
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waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
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49
f.Start;
pcommand == start;
60
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
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43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
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104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
131
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
93
else;
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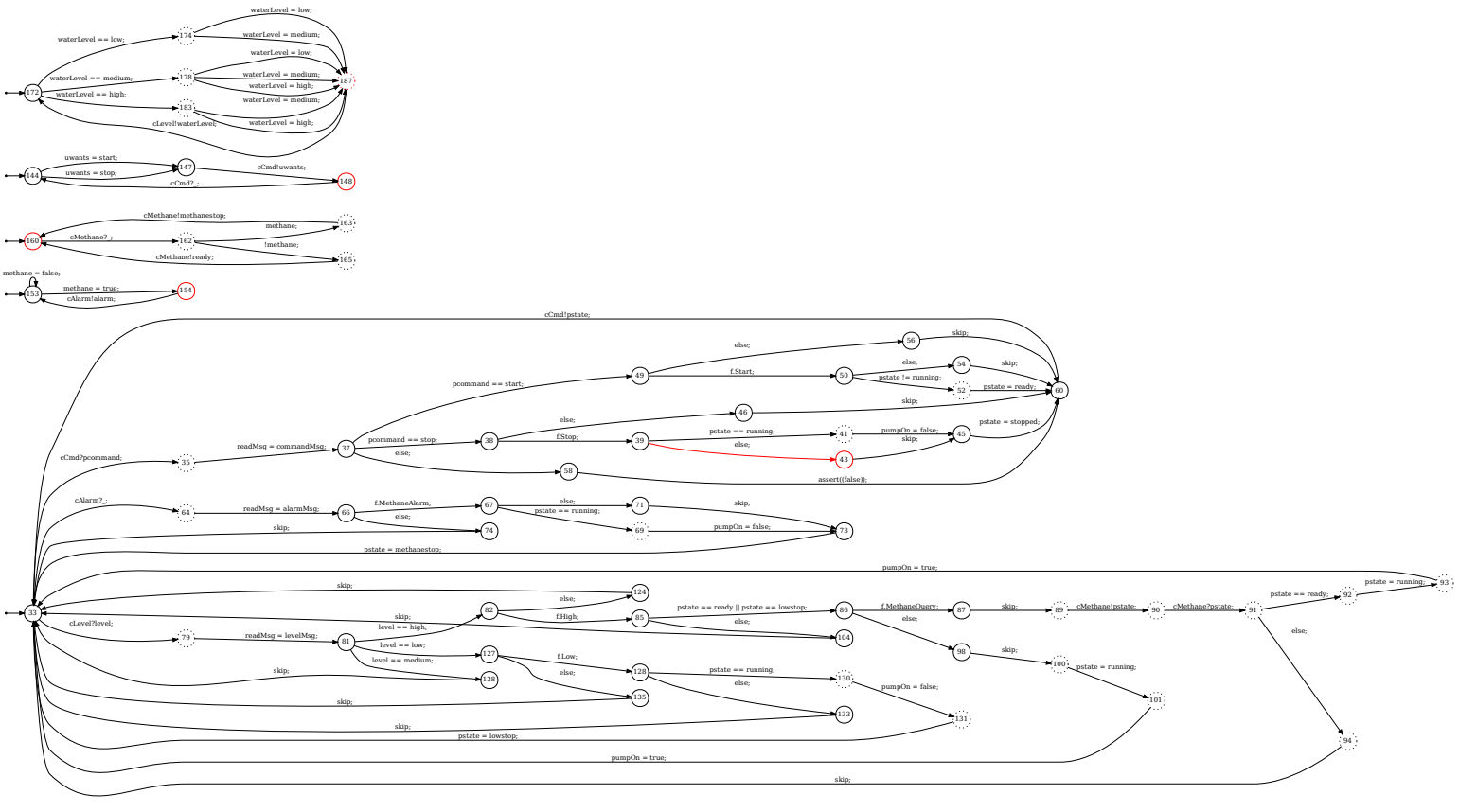
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
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waterLevel = high;
144
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148
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methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
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46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
66
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73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
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104
124
127
128
130
131
133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
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cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
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else;
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skip;
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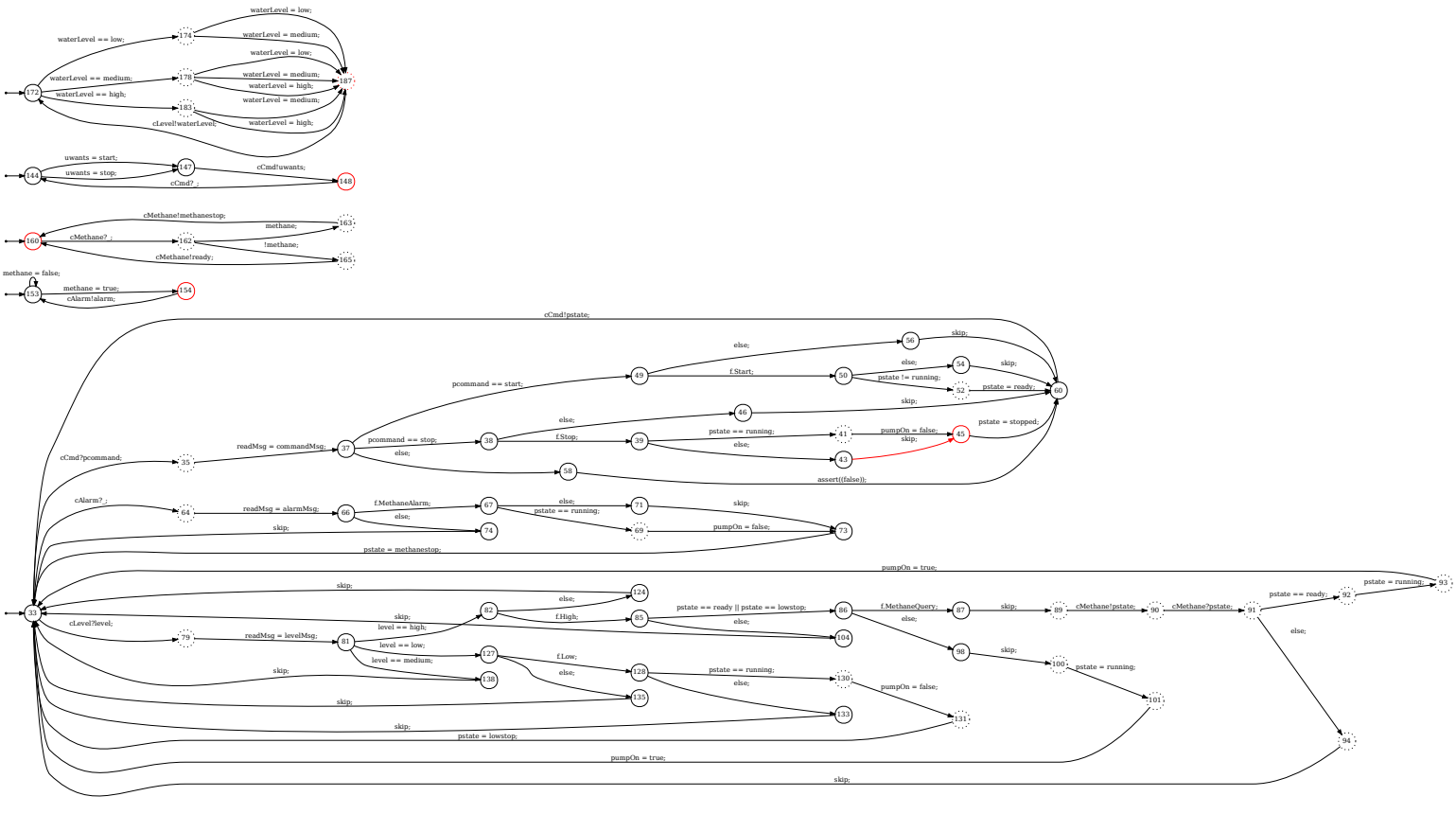
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
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waterLevel = medium;
waterLevel = high;
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153
methane = true;
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154
cCmd!pstate;
56
skip;
else;
49
f.Start;
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else;
54
skip;
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
skip;
pstate = lowstop;
pumpOn = true;
skip;
pstate == running;
else;
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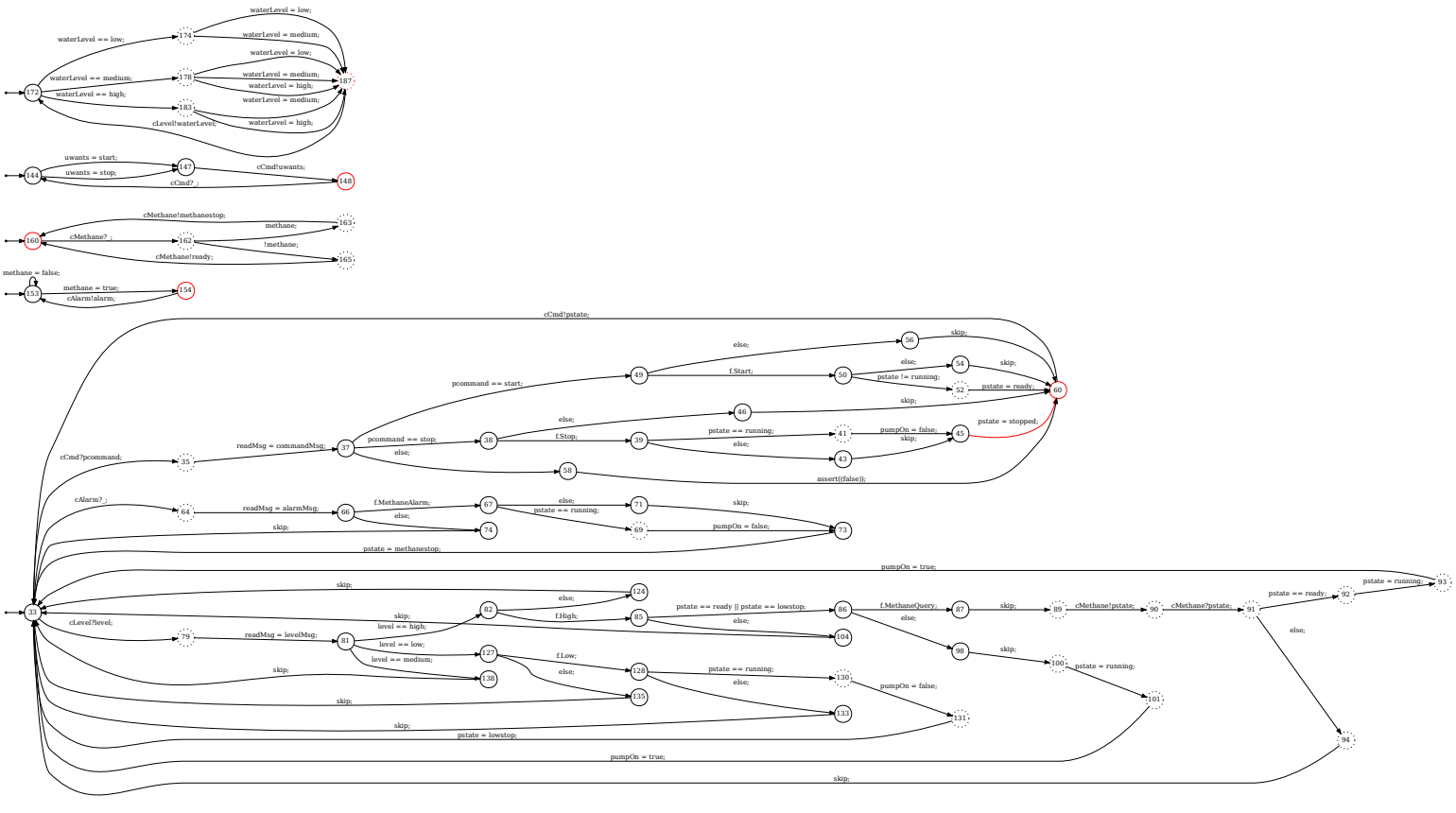
pumpOn = false;
131
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
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waterLevel = medium;
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waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pstate == running;
else;
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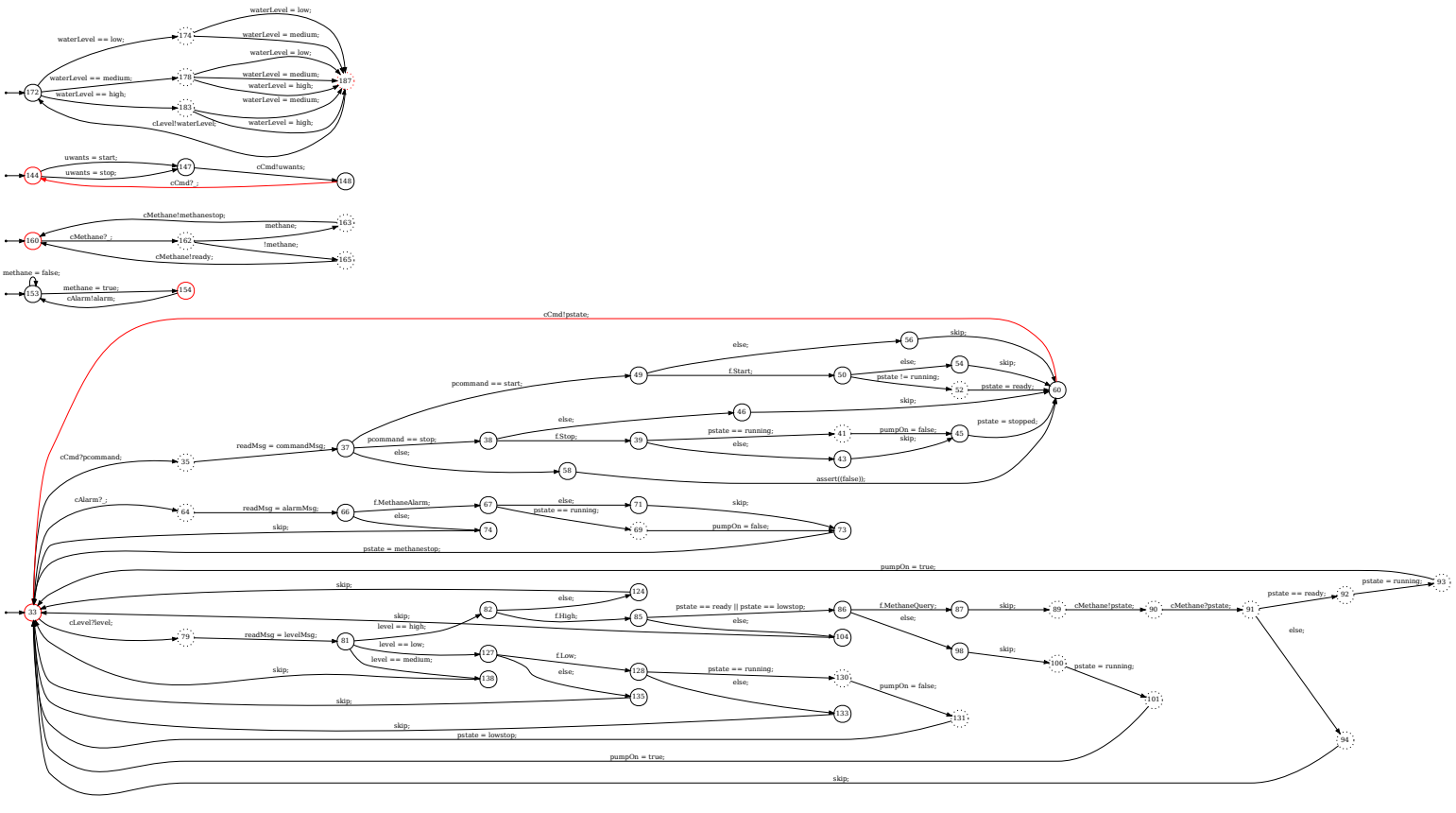
pumpOn = false;
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
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else;
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skip;
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pstate = running;
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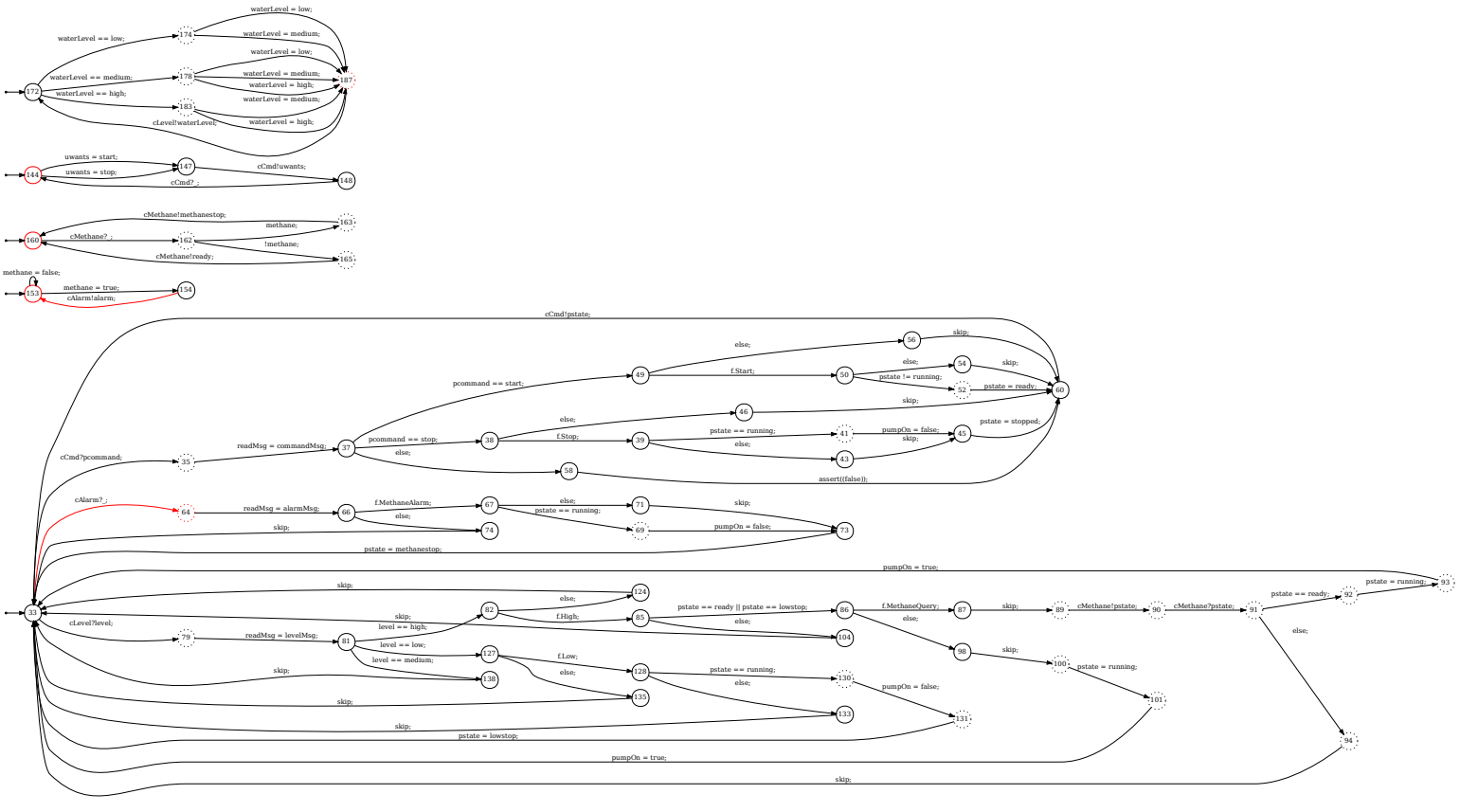
94
pumpOn = true;
skip;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183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
else;
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skip;
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assert((false));
cAlarm? ;
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readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
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skip;
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pstate == running;
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pumpOn = false;
74
73
skip;
pstate = methanestop;
pumpOn = true;
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skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
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f.MethaneQuery;
else;
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cMethane!pstate;
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cMethane?pstate;
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pstate == ready;
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79
readMsg = levelMsg;
81
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level == high;
level == low;
level == medium;
104
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
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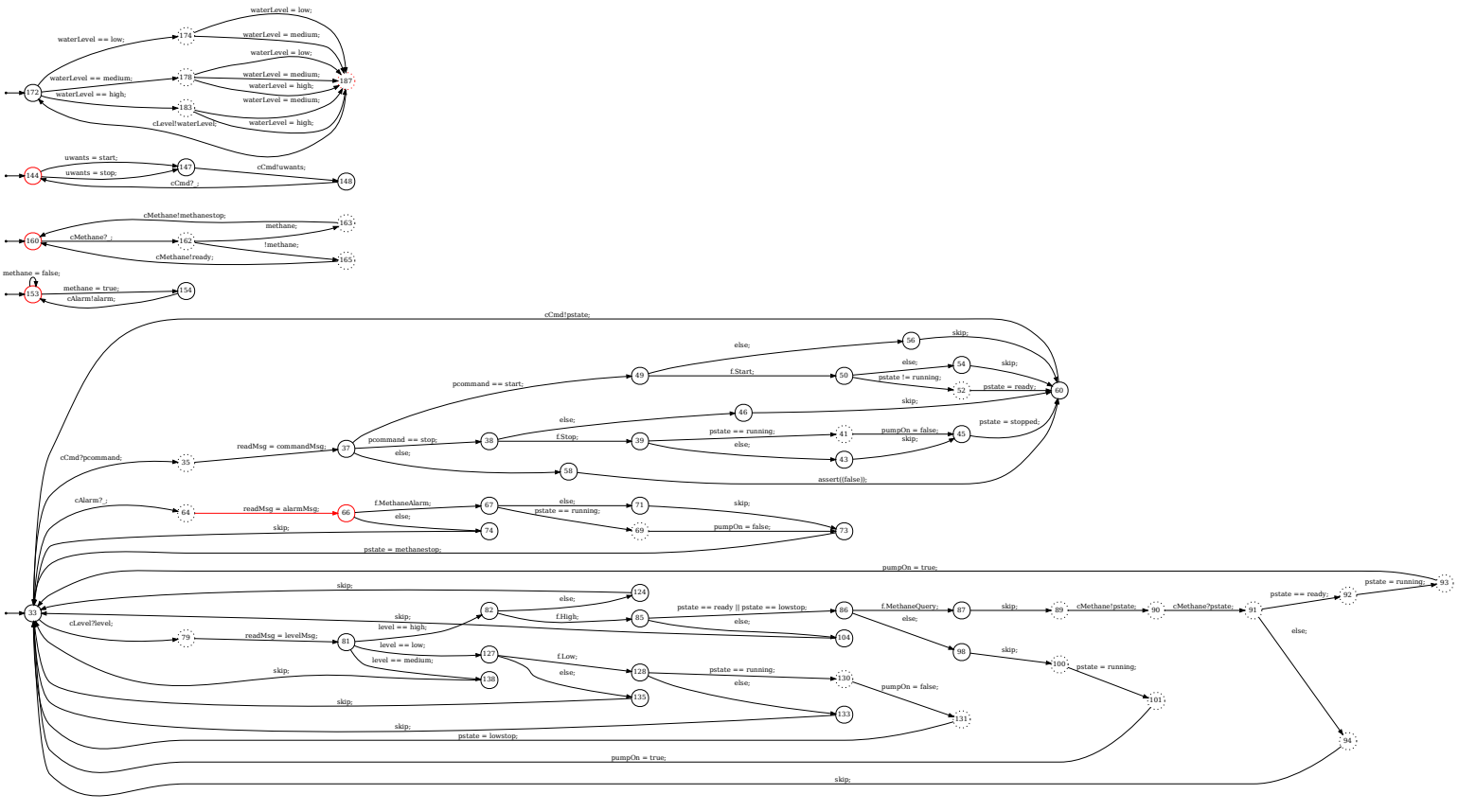
skip;
100
pstate = running;
101
138
135
133
131
94
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
pcommand == stop;
else;
37
readMsg = commandMsg;
35
cCmd?pcommand;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
98
skip;
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pstate = running;
101
pstate == running;
else;
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133
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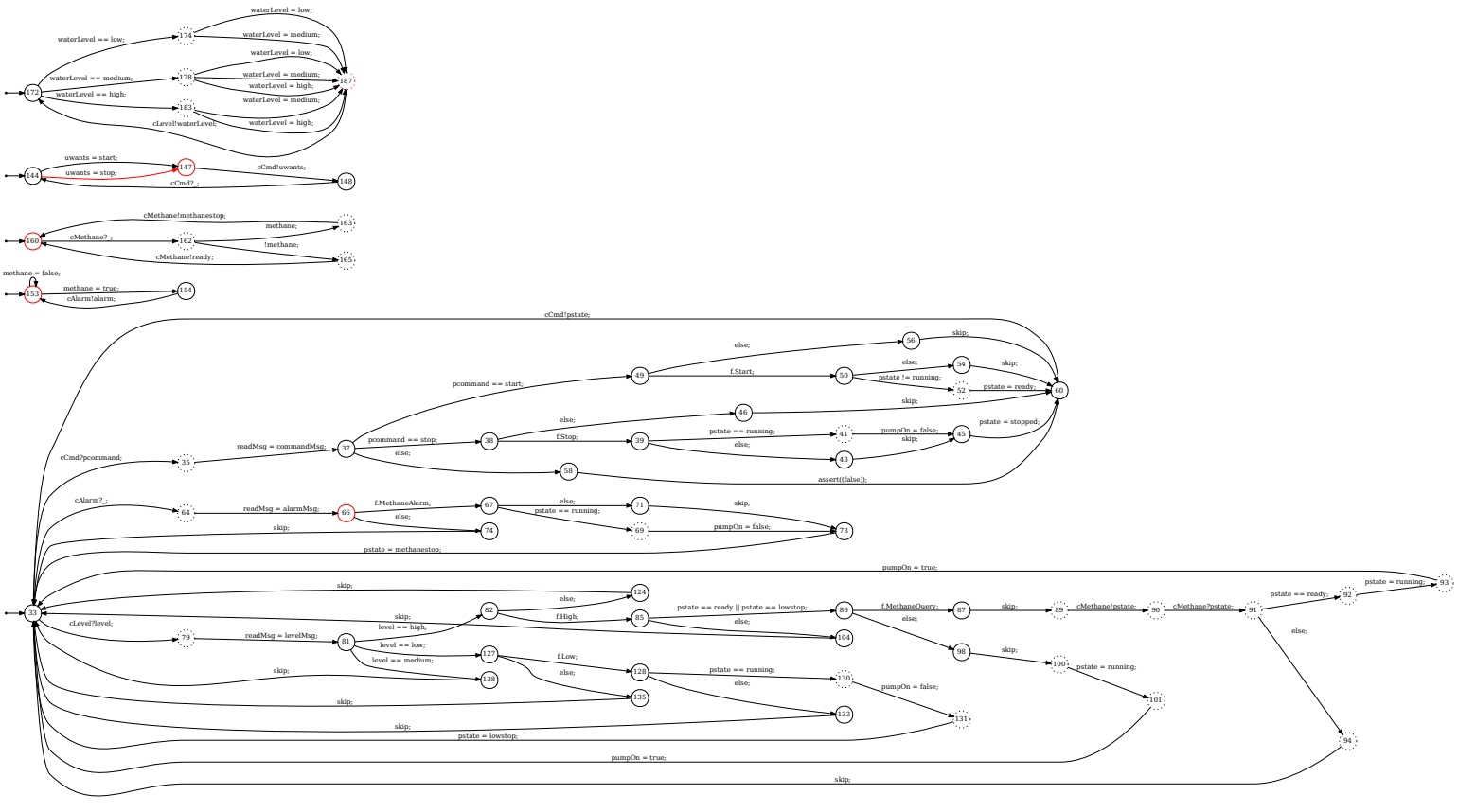
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
52
pstate != running;
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pstate = stopped;
pumpOn = false;
45
skip;
else;
38
39
43
f.Stop;
pstate == running;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
74
pstate == running;
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
f.High;
85
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
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131
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skip;
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pstate = running;
101
138
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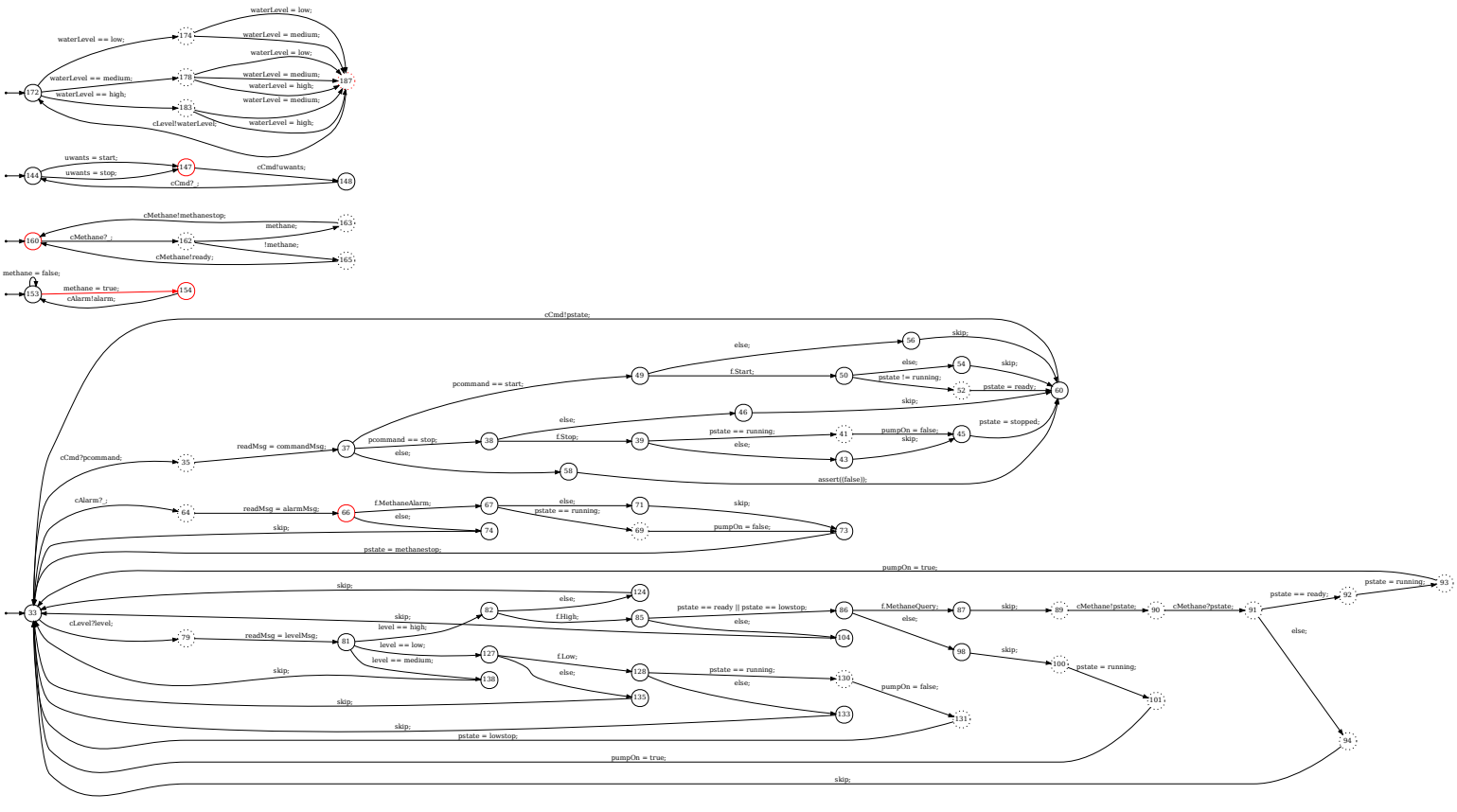
skip;
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
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43
45
46
49
50
52
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56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
33
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98
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101
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131
133
135
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
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f.MethaneQuery;
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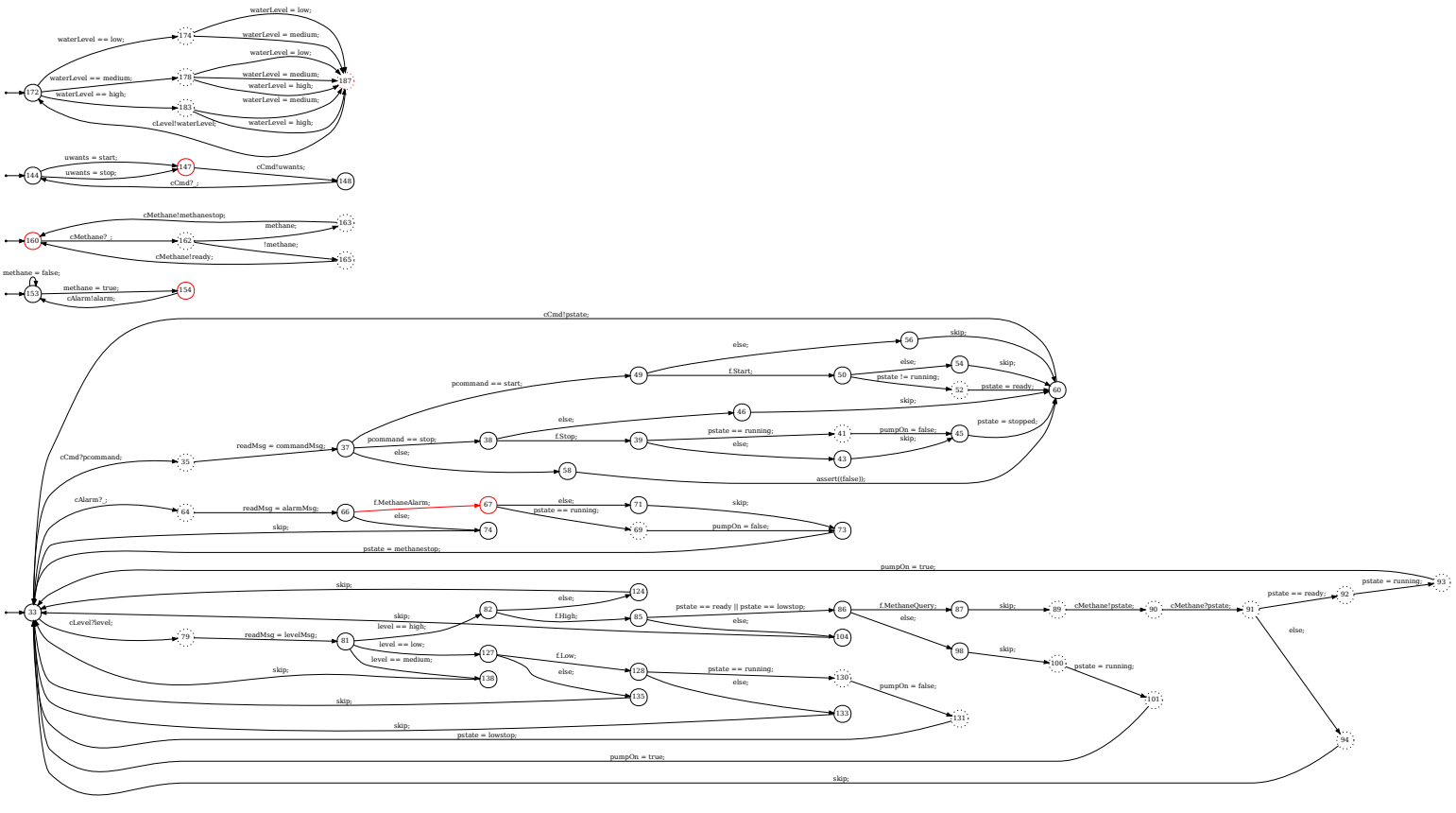
cMethane?pstate;
pstate = running;
pstate = lowstop;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
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else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
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pstate = running;
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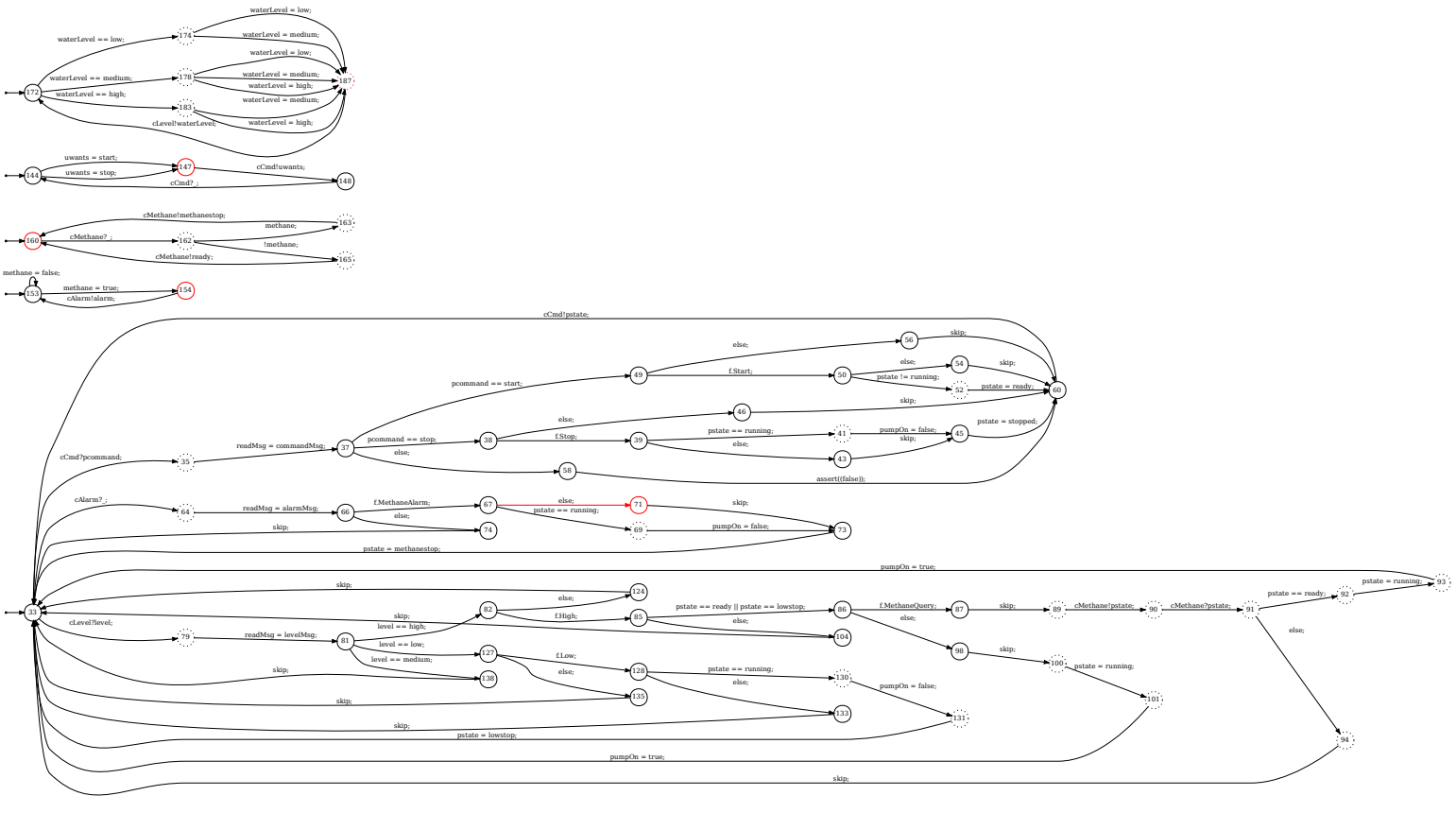
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
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154
methane = false;
methane = true;
cAlarm!alarm;
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101
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124
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133
135
138
cCmd!pstate;
else;
skip;
else;
f.Start;
pstate != running;
skip;
pstate = ready;
pcommand == start;
skip;
else;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
else;
skip;
assert((false));
cCmd?pcommand;
readMsg = commandMsg;
pcommand == stop;
else;
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
skip;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
f.High;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
level == low;
level == medium;
f.Low;
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skip;
skip;
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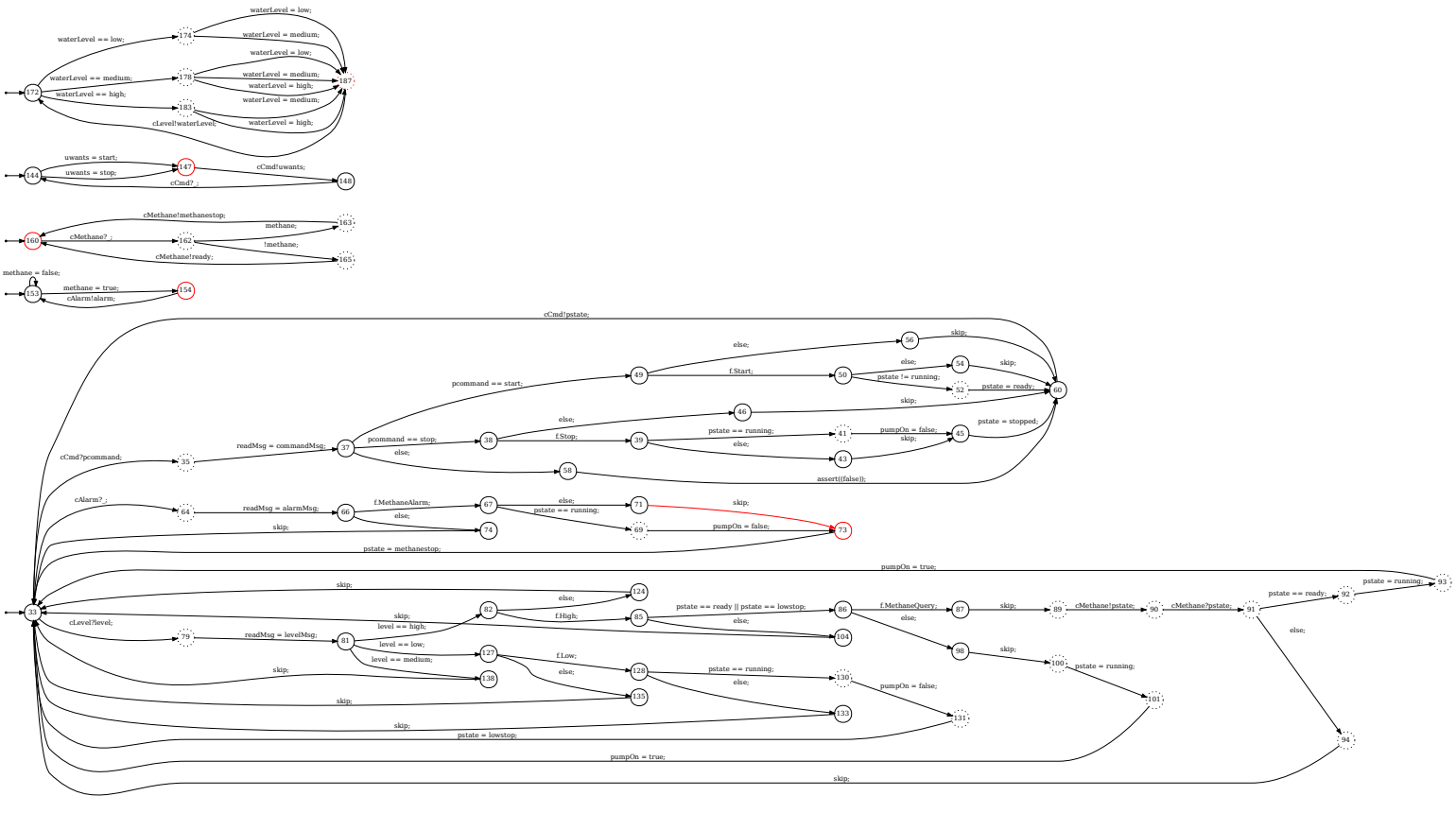
skip;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waterLevel == low;
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waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
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uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
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165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
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methane = true;
cAlarm!alarm;
cCmd!pstate;
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cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
pstate != running;
pstate = ready;
pcommand == stop;
f.Stop;
pstate == running;
pumpOn = false;
pstate = stopped;
assert((false));
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74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
pstate == running;
pumpOn = false;
pstate = methanestop;
pumpOn = true;
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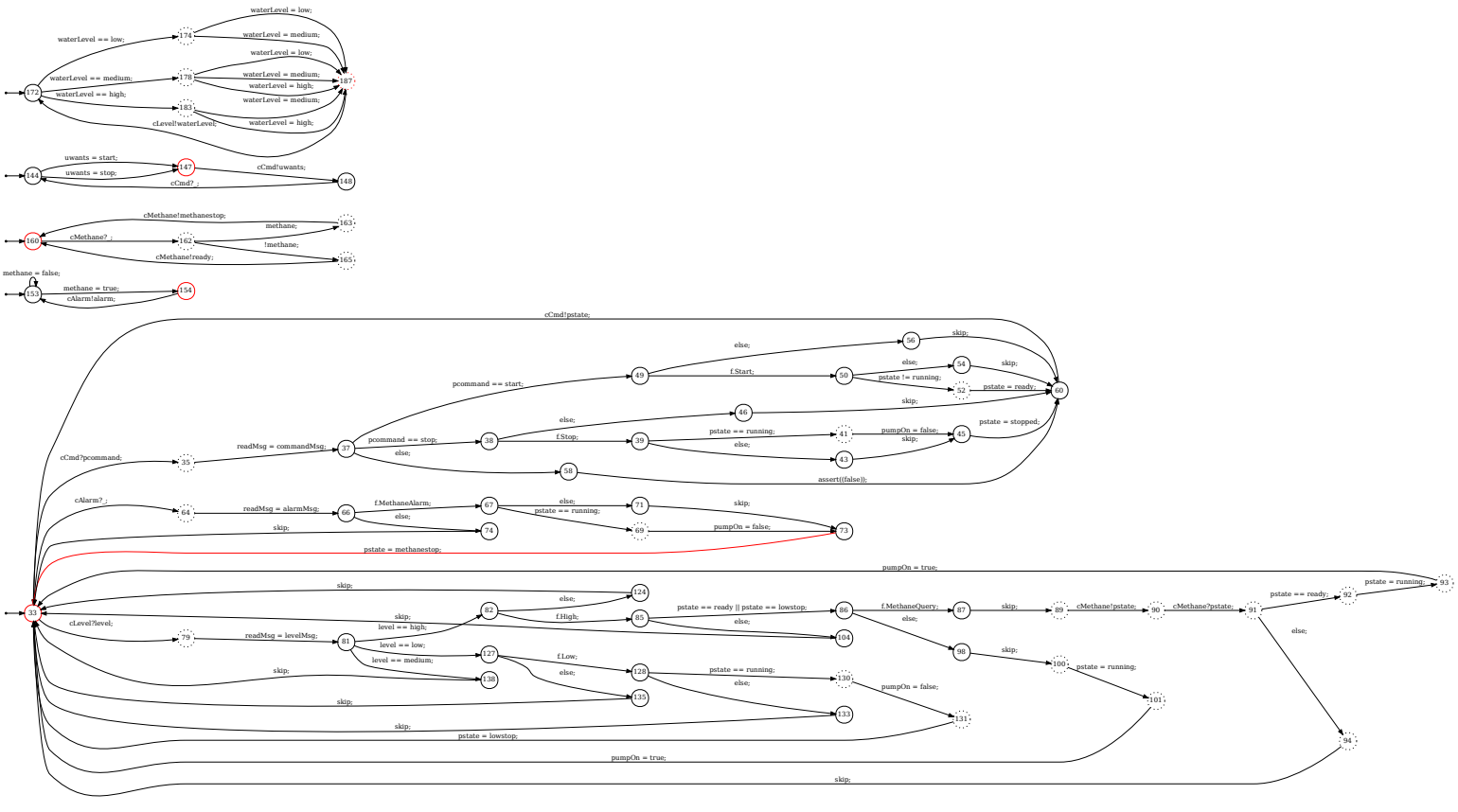
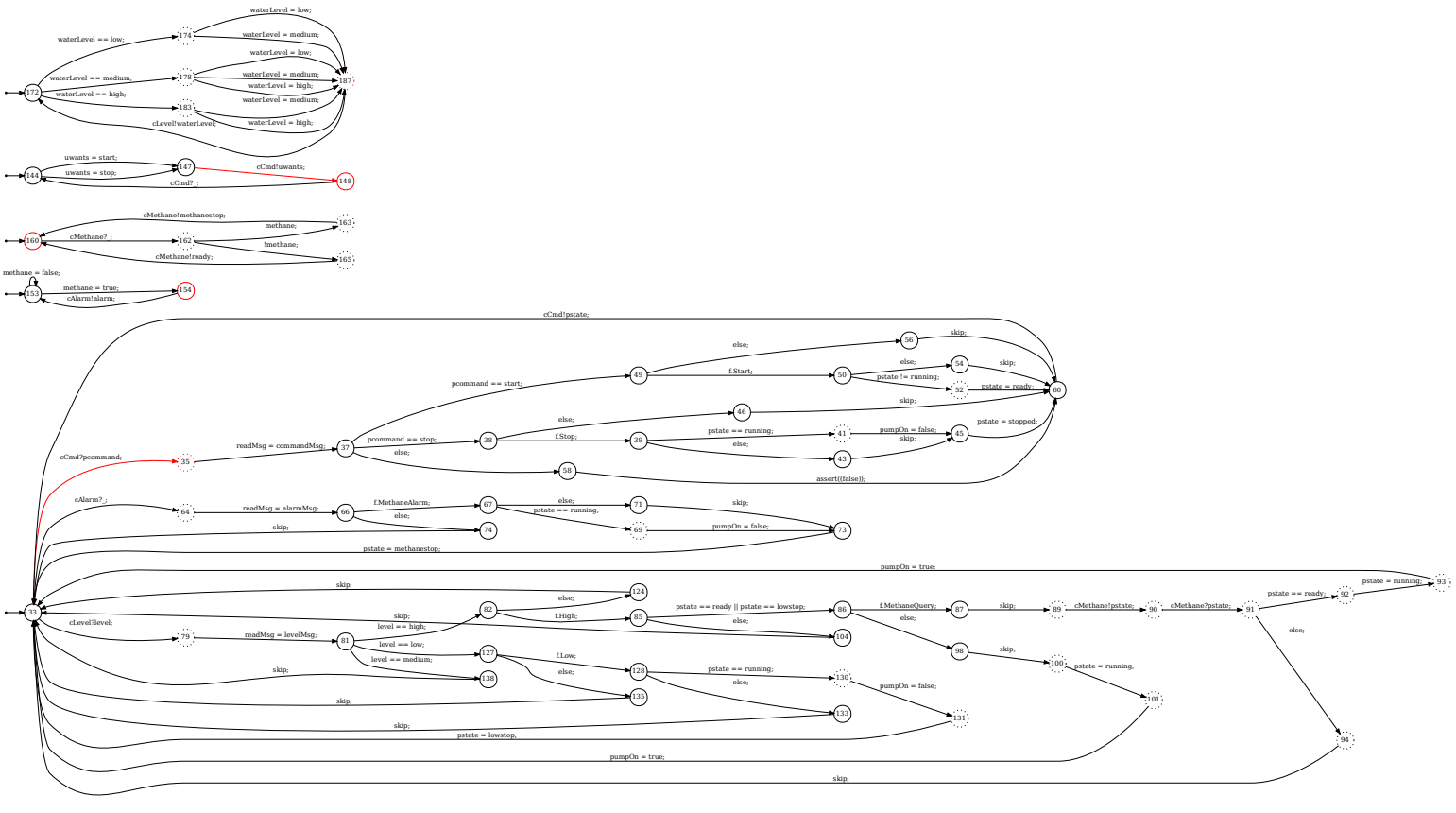
138
cLevel?level;
readMsg = levelMsg;
level == high;
level == low;
level == medium;
f.High;
f.Low;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
pstate = running;
pstate = lowstop;


waterLevel = low;
waterLevel == low;
174
waterLevel = medium;
waterLevel = low;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = high;
187
172
waterLevel == high;
183
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
uwants = start;
144
147
cCmd!uwants;
uwants = stop;
cCmd? ;
148
cMethane!methanestop;
163
160
cMethane? ;
162
methane;
!methane;
cMethane!ready;
165
methane = false;
153
methane = true;
154
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
else;
43
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
skip;
124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
f.High;
85
else;
else;
cLevel?level;
skip;
level == high;
104
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
else;
98
skip;
100
pstate = running;
level == medium;
skip;
138
128
pstate == running;
else;
130
else;
pumpOn = false;
101
skip;
135
133
131
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
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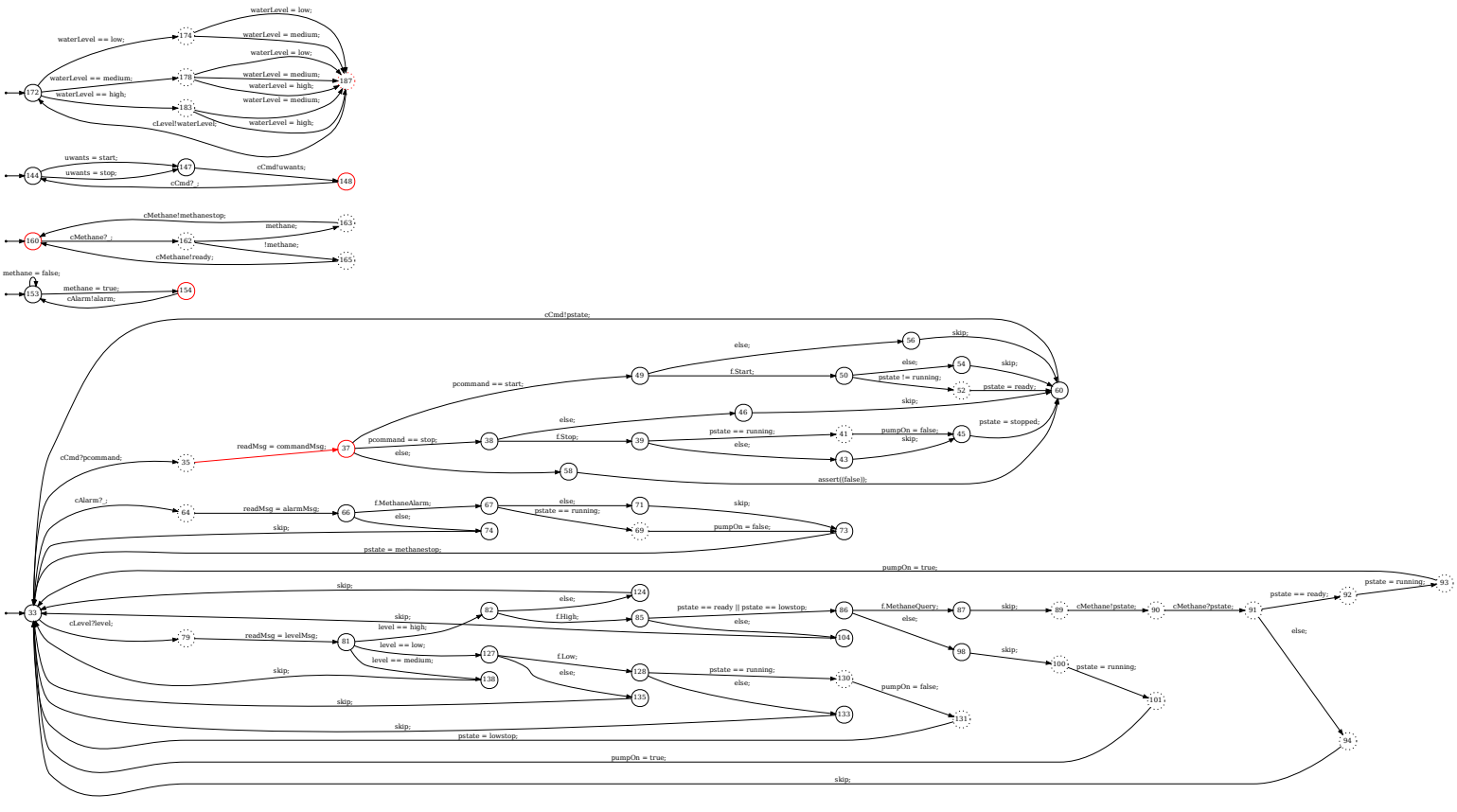
else;
pumpOn = false;
131
pstate == ready;
92
pstate = running;
93
94
pumpOn = true;
skip;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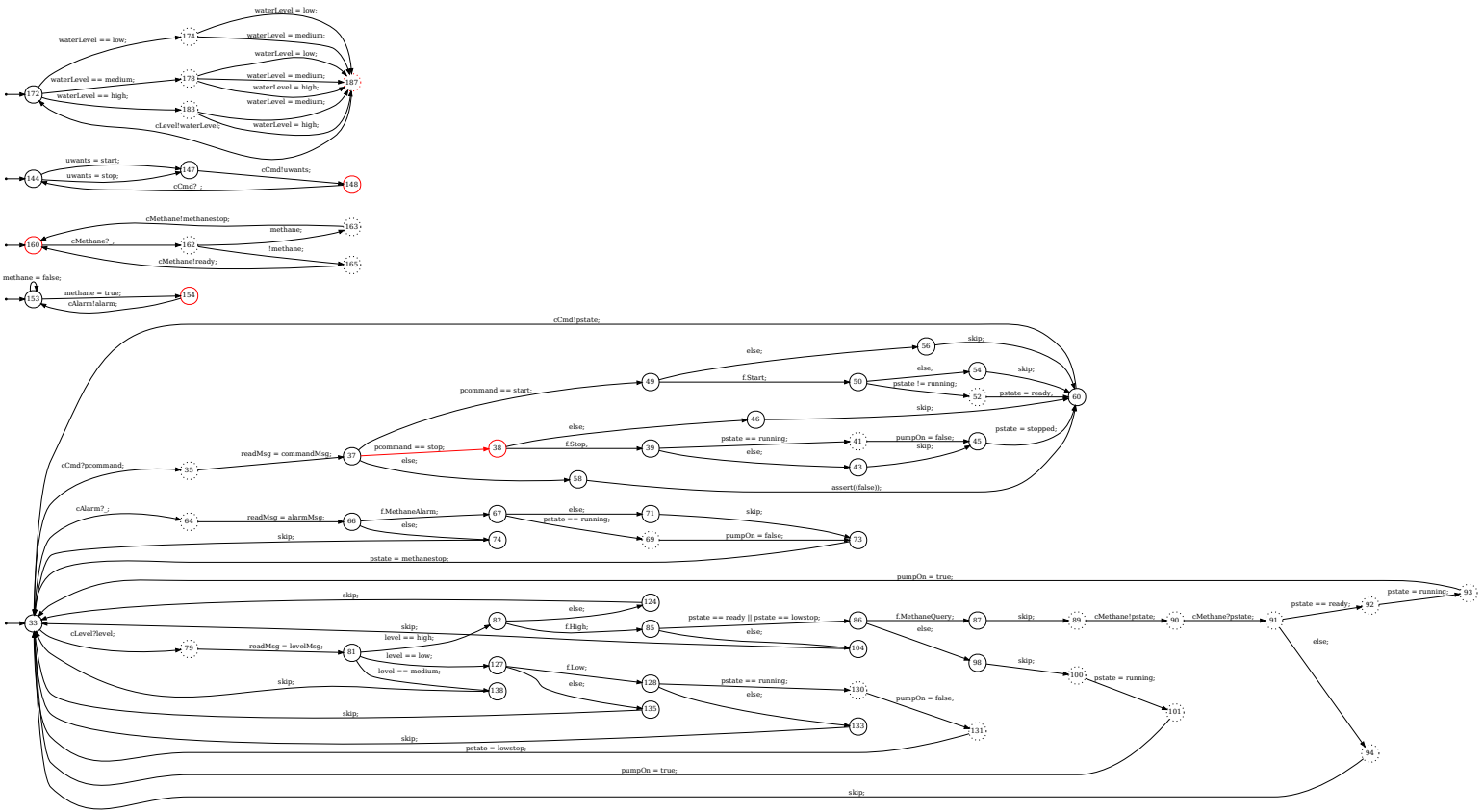
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
38
39
f.Stop;
pstate == running;
else;
43
else;
pcommand == stop;
37
else;
58
assert((false));
readMsg = commandMsg;
35
cCmd?pcommand;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
level == medium;
138
f.Low;
else;
128
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == running;
130
else;
pumpOn = false;
133
131
pstate = lowstop;
pumpOn = true;
skip;
92
pstate = ready;
93
94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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
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methane = false;
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methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
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skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
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69
pumpOn = false;
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pstate = methanestop;
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else;
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f.High;
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level == high;
level == low;
level == medium;
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f.Low;
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138
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133
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pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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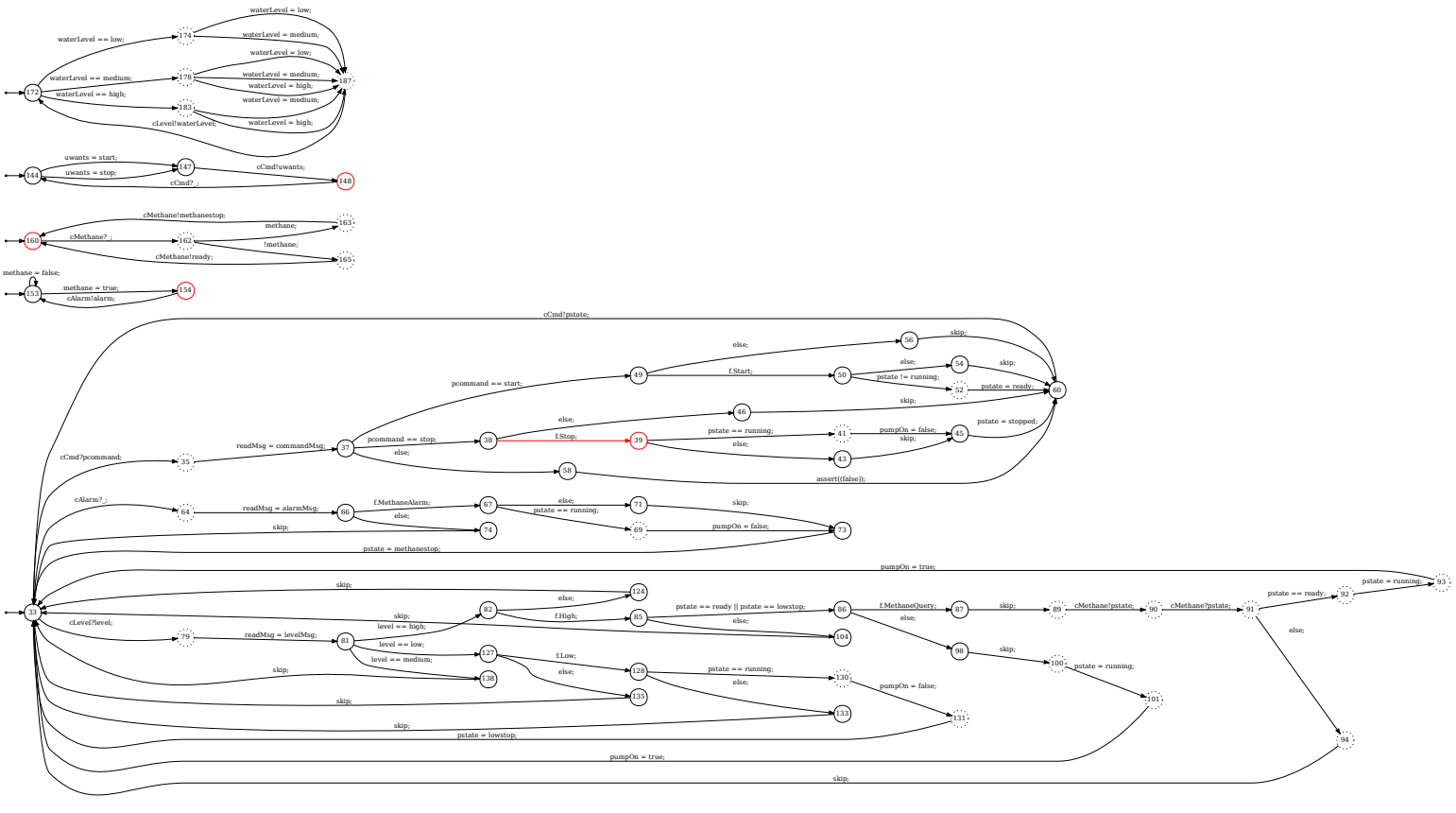
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pstate == running;
else;
130
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
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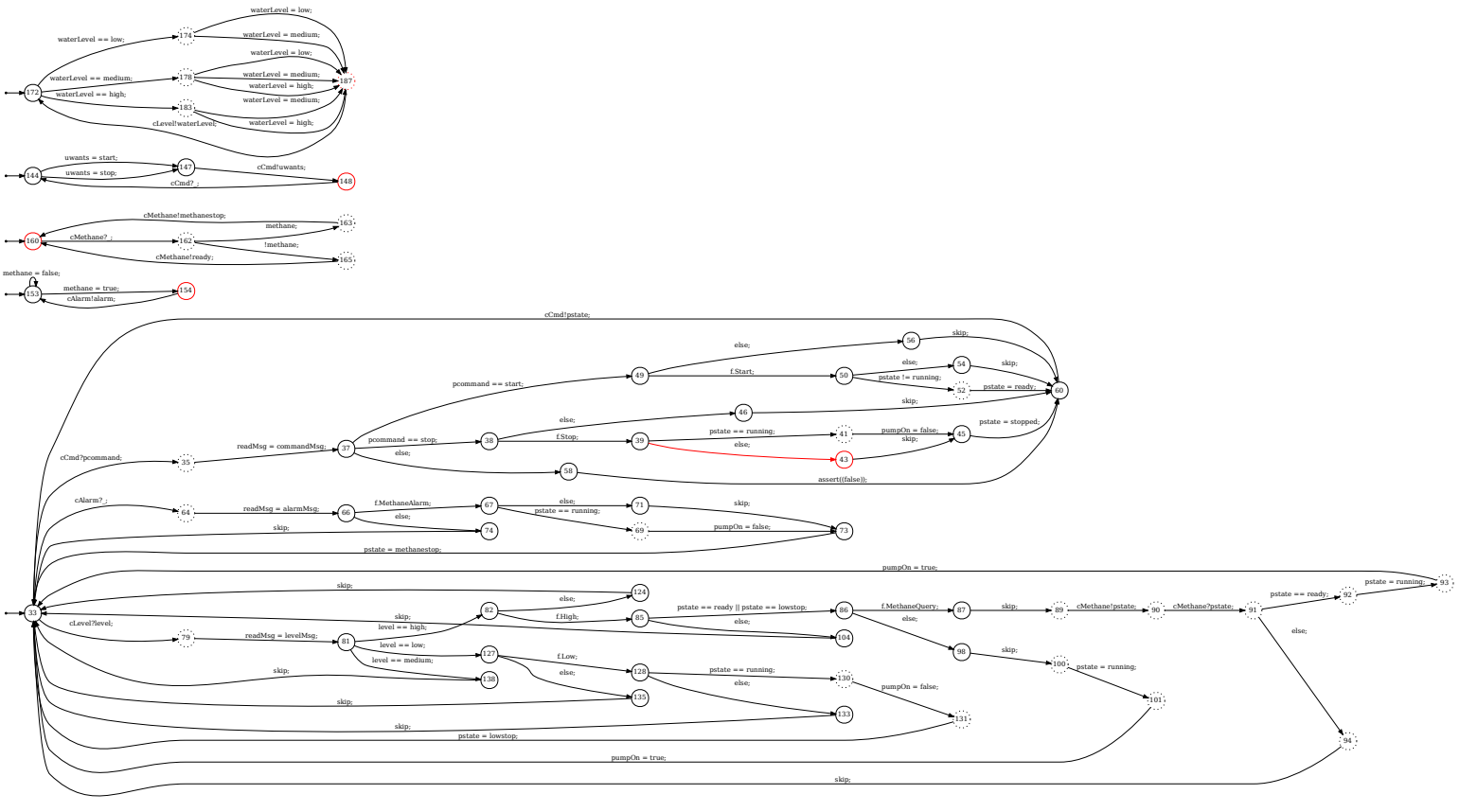
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
131
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
79
81
82
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86
87
89
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92
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94
98
100
101
104
124
127
128
130
131
133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
f.Low;
else;
pstate == running;
else;
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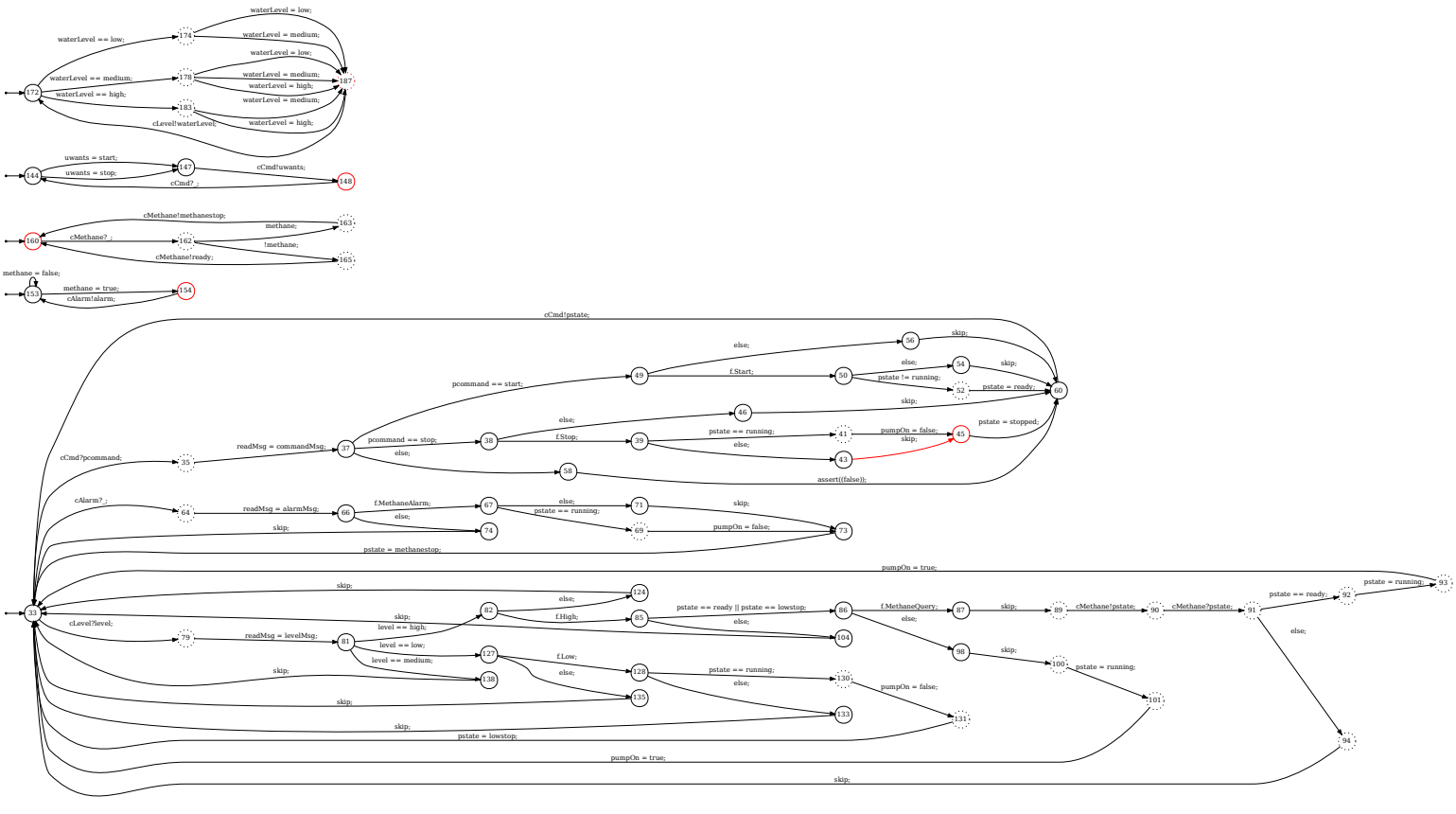
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;


172
waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
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163
cMethane!ready;
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methane = false;
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methane = true;
cAlarm!alarm;
154
cCmd!pstate;
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skip;
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49
f.Start;
50
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54
skip;
pstate != running;
52
pstate = ready;
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pcommand == start;
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38
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39
pstate == running;
41
pumpOn = false;
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pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
101
pstate == ready;
92
pstate = running;
93
94
skip;
pstate = lowstop;
pumpOn = true;
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pstate == running;
else;
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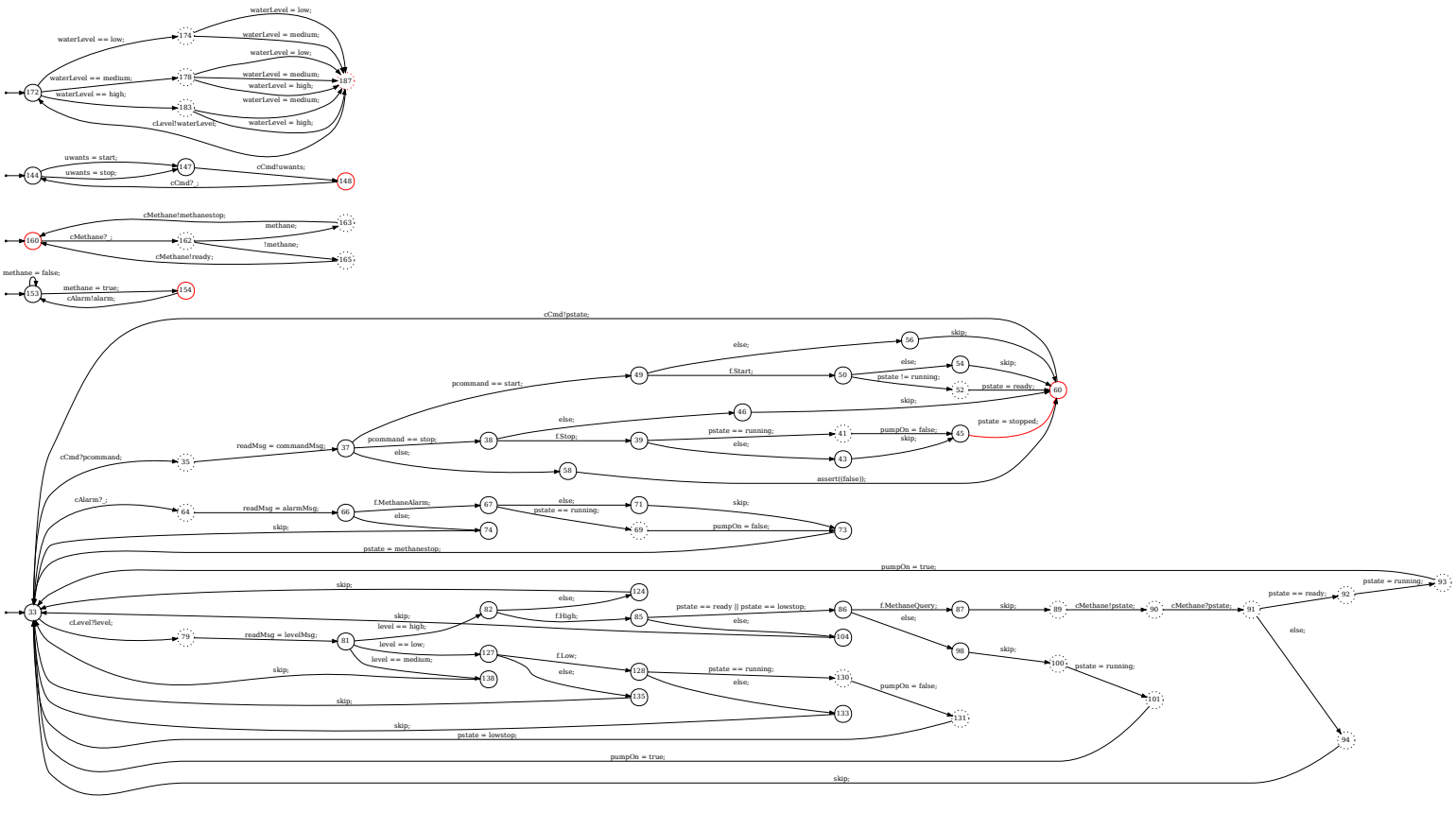
skip;
pstate = lowstop;
pumpOn = true;
skip;


172
waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
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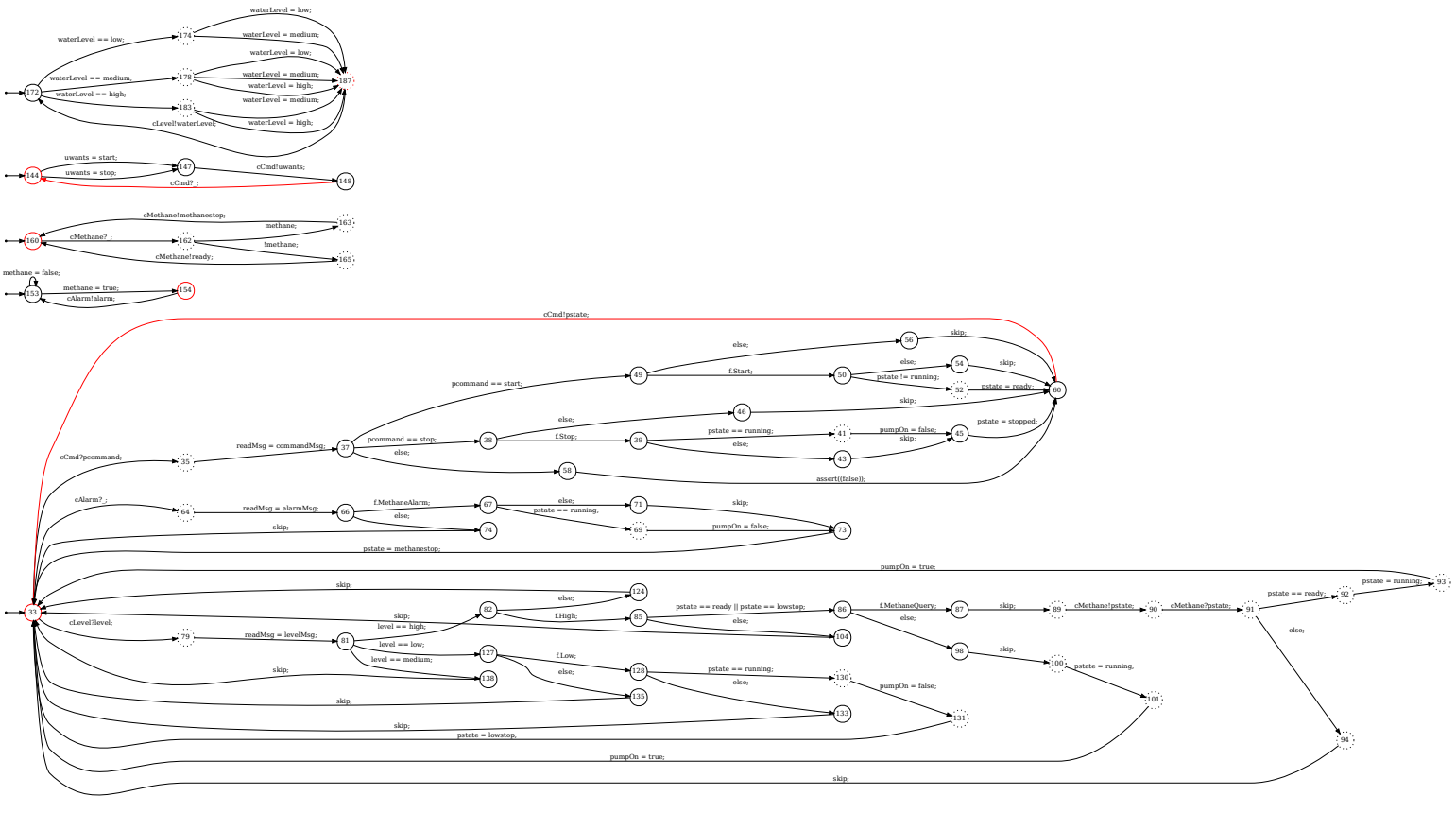
pstate == running;
else;
130
pumpOn = false;
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
skip;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
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f.High;
85
else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
127
f.Low;
128
pstate == running;
130
else;
pumpOn = false;
level == medium;
138
else;
135
133
131
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
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87
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89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
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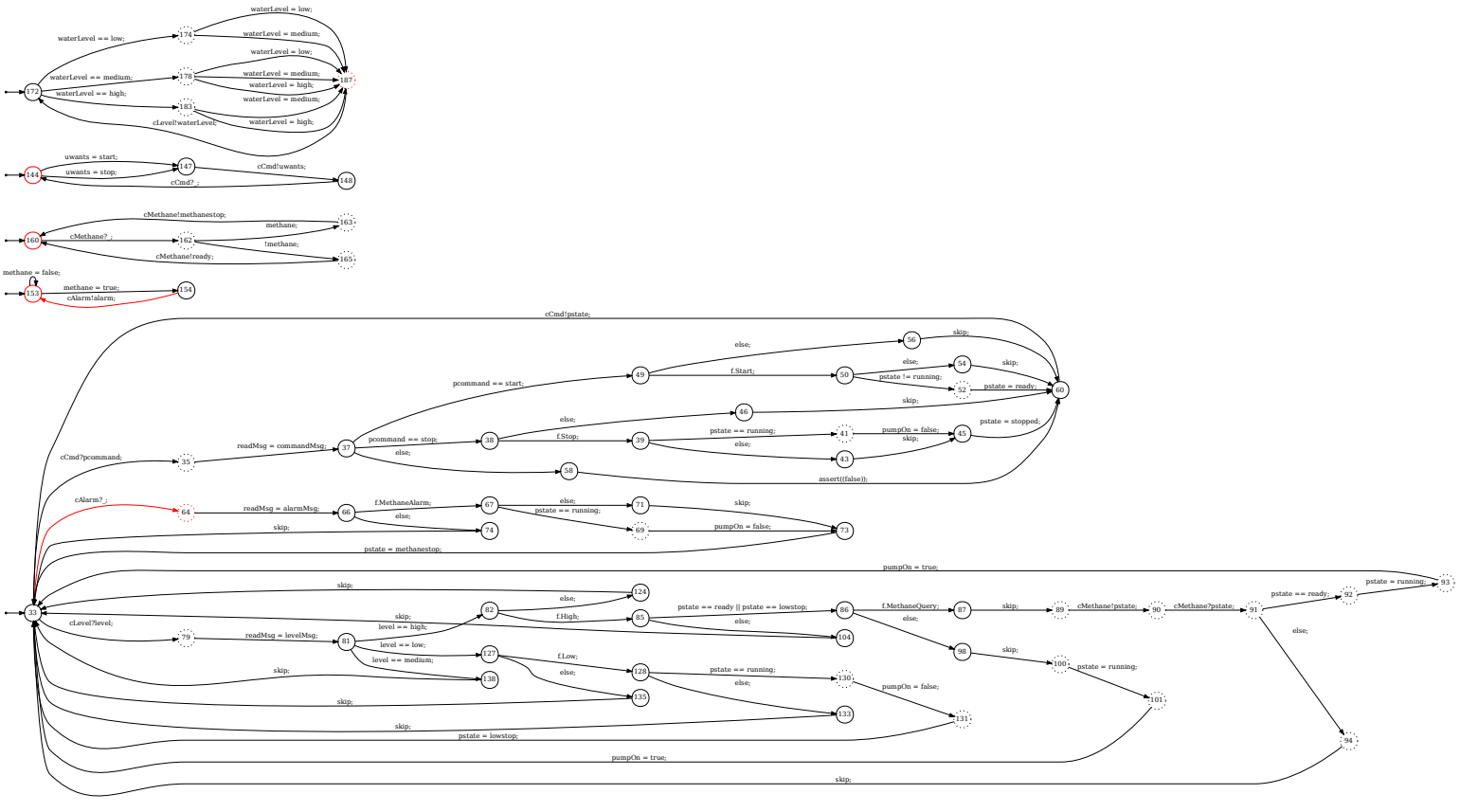
pumpOn = true;
skip;


172
waterLevel == low;
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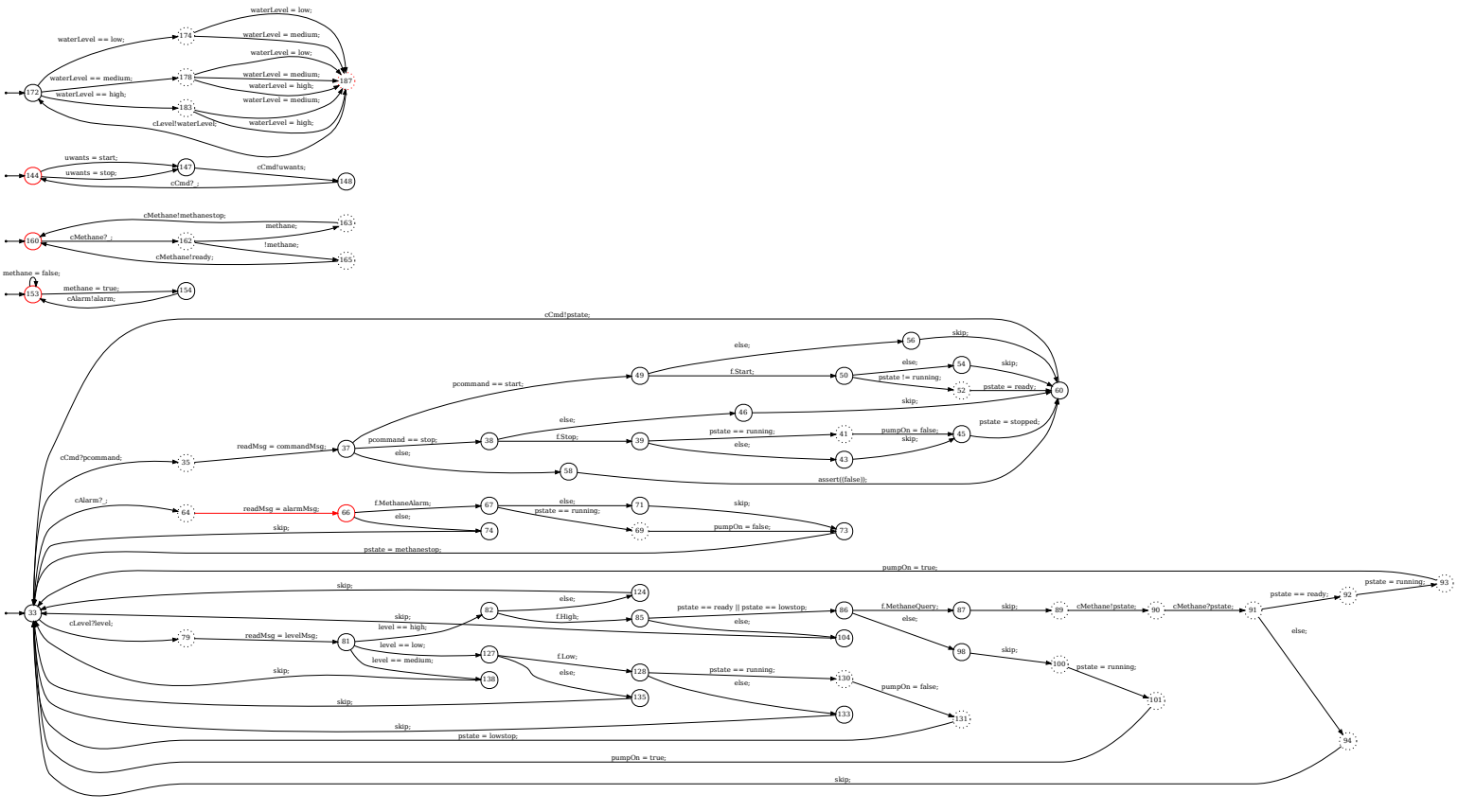
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
178
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
else;
43
skip;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
else;
pstate == running;
69
pumpOn = false;
74
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
pstate == ready || pstate == lowstop;
else;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
104
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
98
skip;
100
pstate = running;
101
138
135
133
131
94
skip;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
else;
39
f.Stop;
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
pcommand == stop;
else;
37
readMsg = commandMsg;
35
cCmd?pcommand;
58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
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124
else;
82
f.High;
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else;
104
skip;
level == high;
cLevel?level;
79
readMsg = levelMsg;
81
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
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skip;
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pstate == running;
else;
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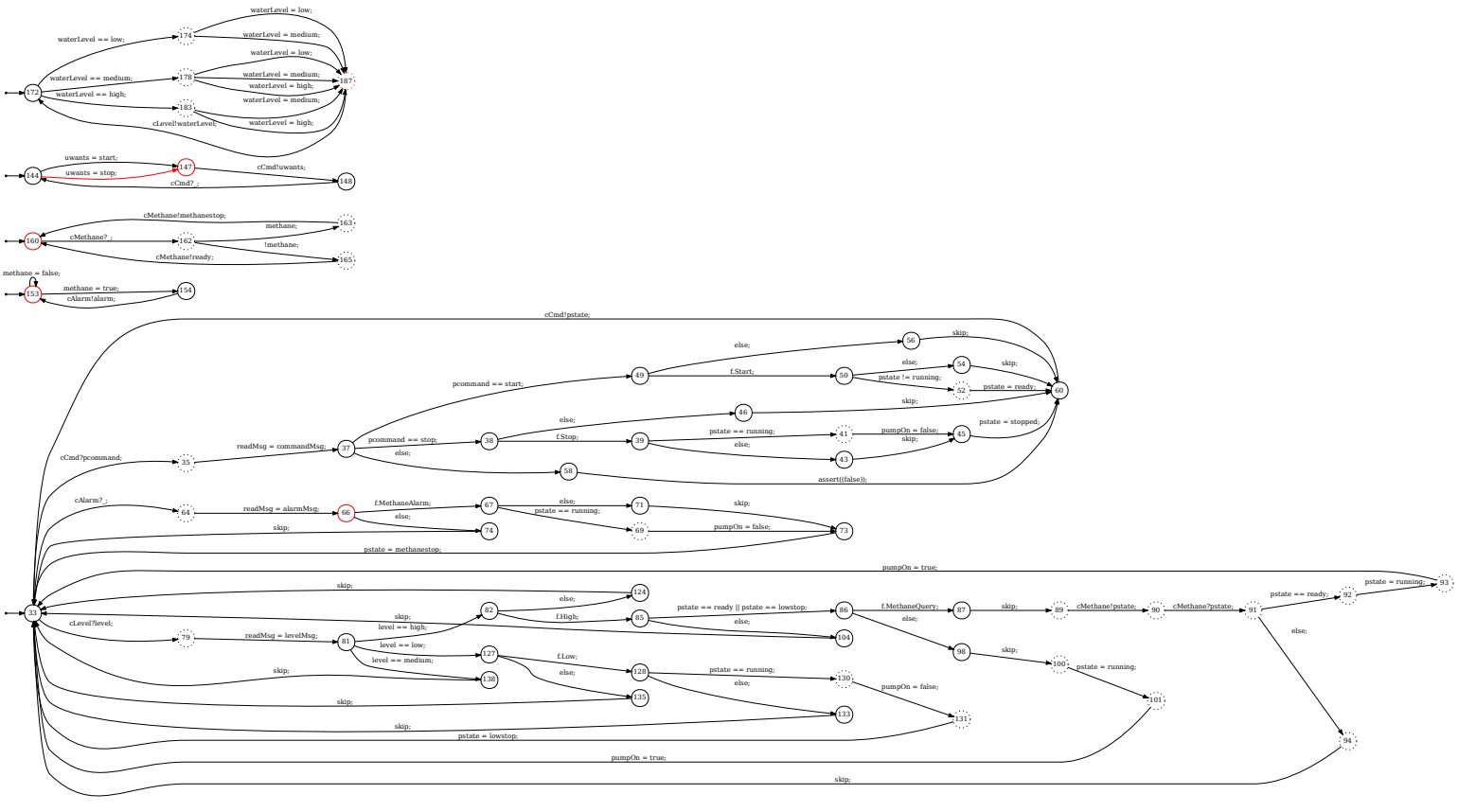
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
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cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
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52
pstate != running;
pstate = ready;
60
f.Start;
pcommand == start;
46
skip;
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41
pstate = stopped;
pumpOn = false;
45
skip;
else;
38
39
43
f.Stop;
pstate == running;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
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71
skip;
74
pstate == running;
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pumpOn = true;
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33
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f.High;
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cMethane?pstate;
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79
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level == low;
level == medium;
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f.Low;
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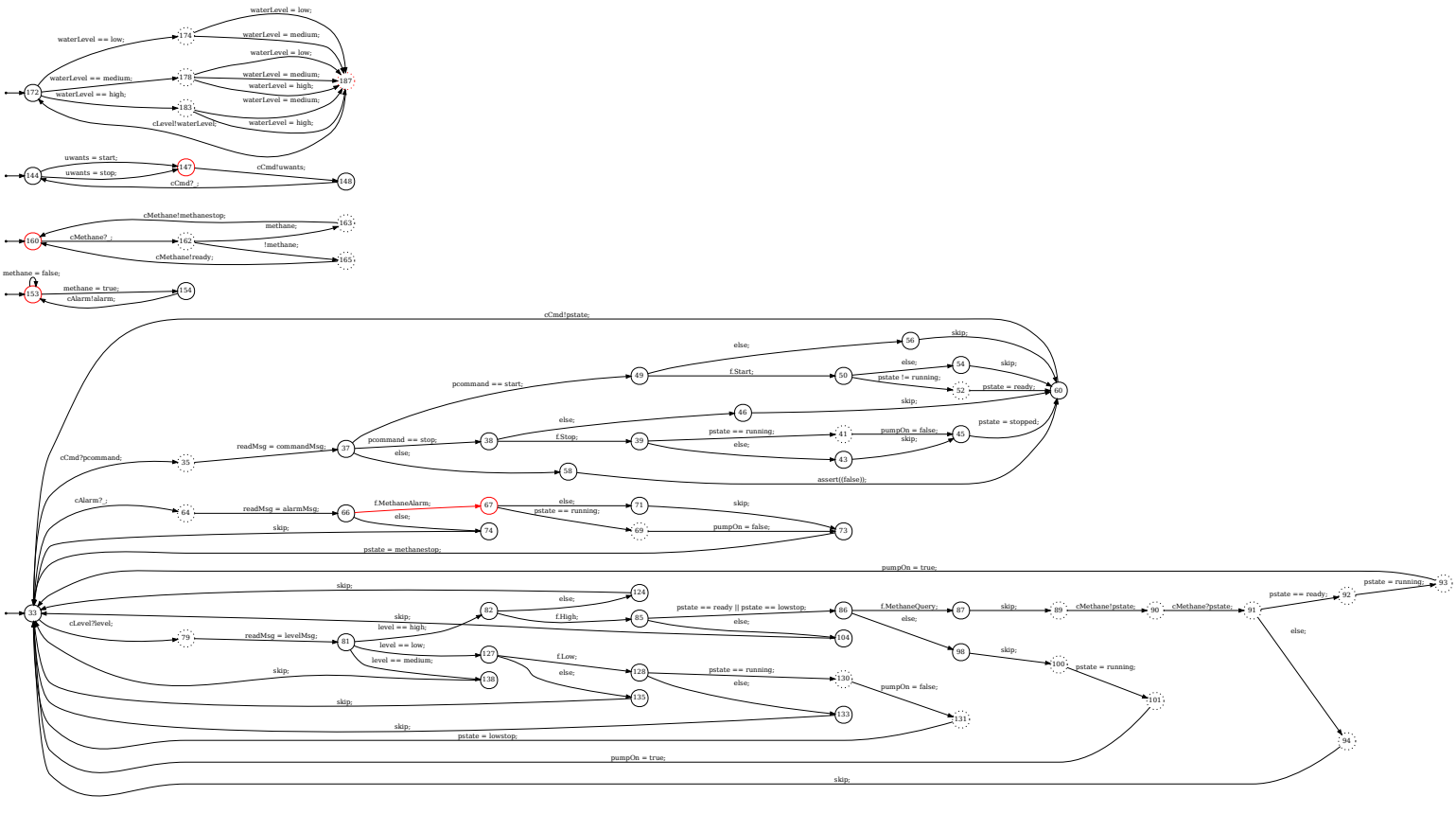
else;
130
pumpOn = false;
133
131
98
skip;
100
pstate = running;
101
138
135
skip;
skip;
pstate = lowstop;
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
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waterLevel = high;
144
147
148
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uwants = stop;
cCmd!uwants;
cCmd? ;
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162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
52
pstate != running;
pstate = ready;
49
f.Start;
60
skip;
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else;
pcommand == start;
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pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
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39
f.Stop;
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pcommand == stop;
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assert((false));
readMsg = commandMsg;
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cCmd?pcommand;
64
cAlarm? ;
readMsg = alarmMsg;
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f.MethaneAlarm;
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67
else;
71
pstate == running;
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
skip;
level == high;
f.High;
85
else;
104
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
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cMethane!pstate;
90
cMethane?pstate;
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pstate == ready;
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pstate = running;
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cLevel?level;
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level == low;
level == medium;
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f.Low;
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128
pstate == running;
else;
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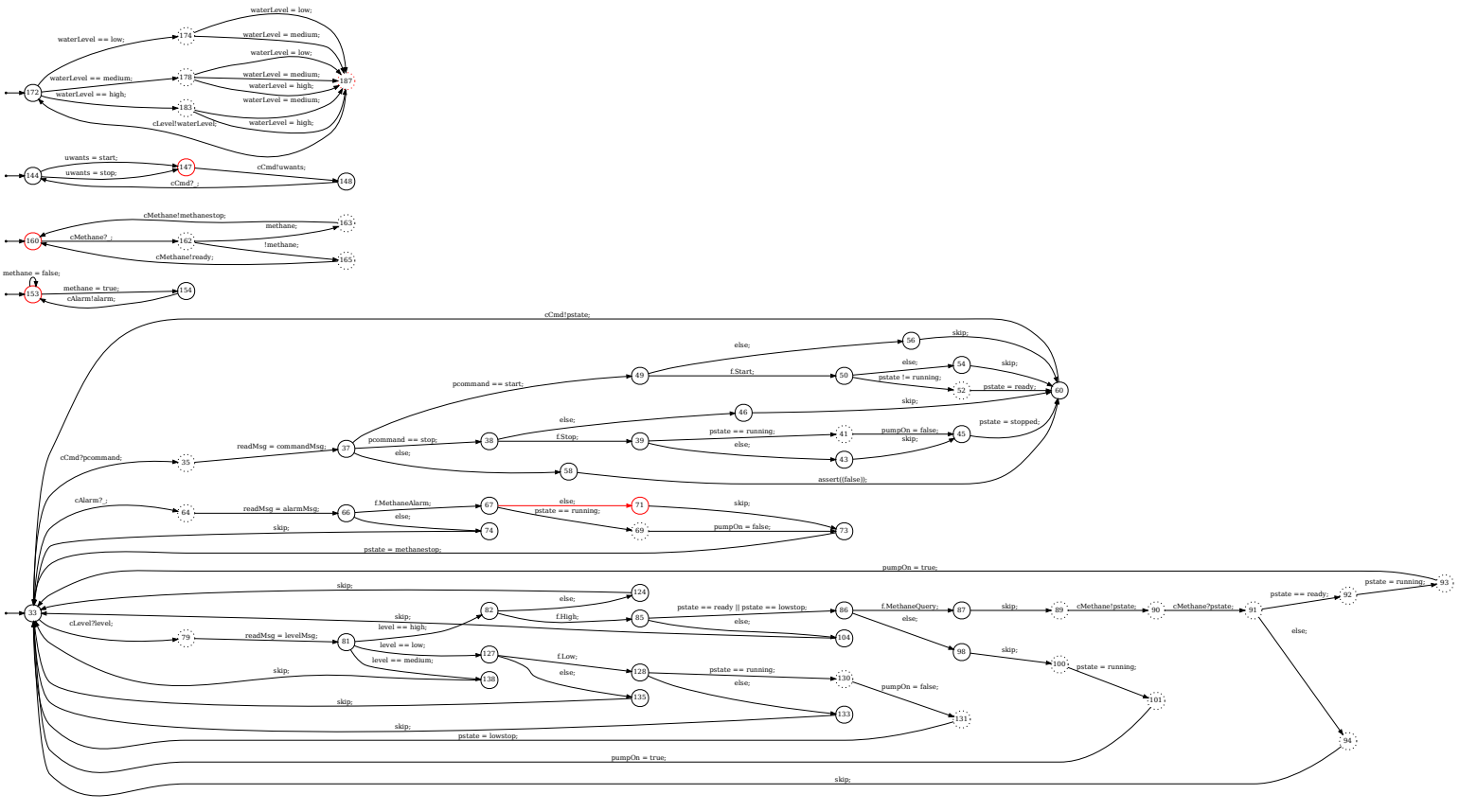
pumpOn = false;
131
133
135
138
skip;
skip;
skip;
98
skip;
100
pstate = running;
101
94
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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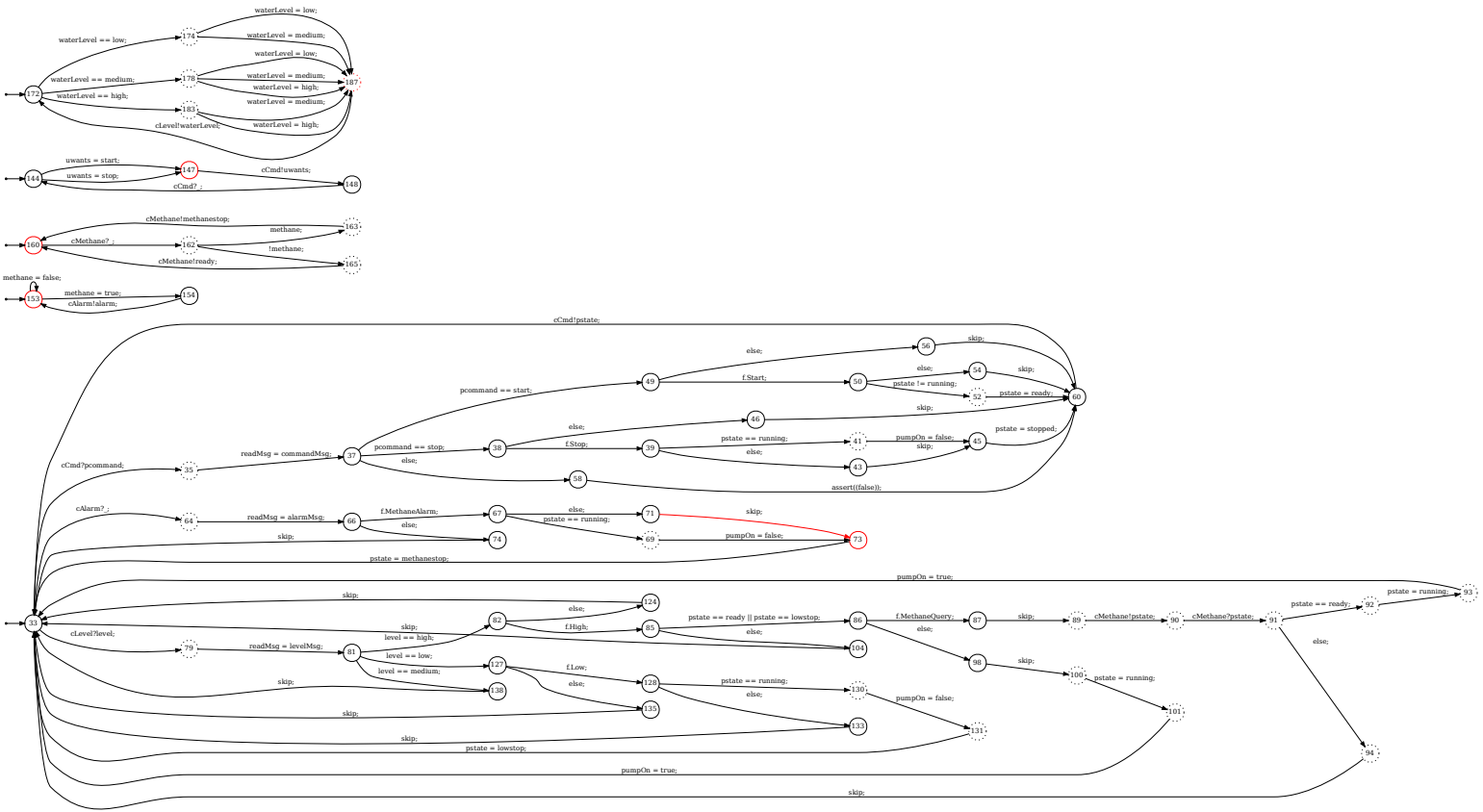
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
else;
f.MethaneQuery;
87
else;
98
skip;
100
pstate = running;
101
131
133
pumpOn = false;
pumpOn = true;
skip;
89
skip;
cMethane!pstate;
90
cMethane?pstate;
91
else;
pstate == ready;
92
pstate = running;
93
94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176
183
187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
methane = false;
153
154
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
39
41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
pstate = ready;
else;
skip;
pcommand == stop;
else;
f.Stop;
else;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
79
81
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85
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87
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92
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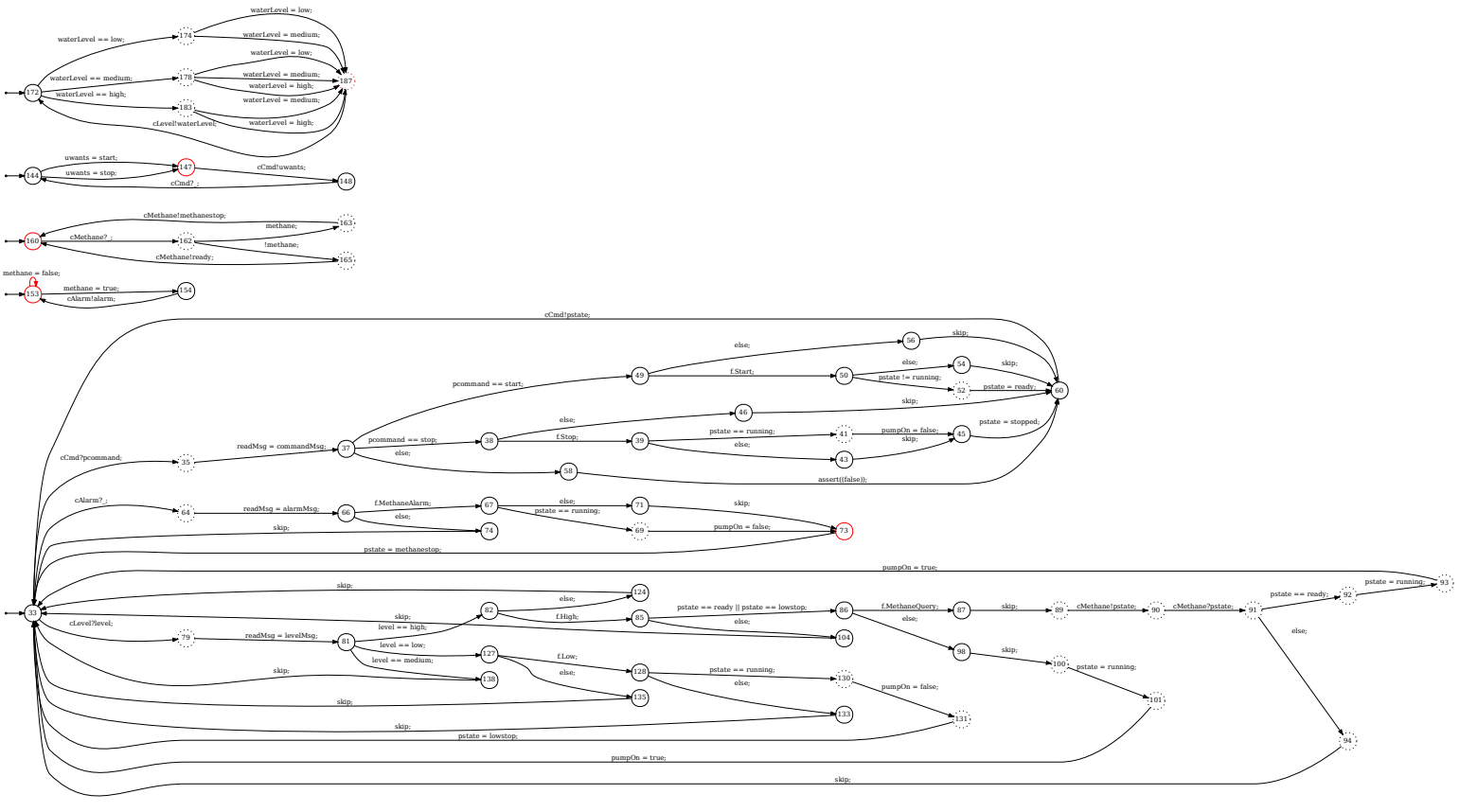
98
100
101
104
124
127
128
130
131
133
135
138
skip;
else;
f.High;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.Low;
else;
pstate == ready || pstate == lowstop;
else;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate = ready;
else;
pstate = running;
skip;
pstate = running;
else;
pstate == running;
else;
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane!methanestop;
cMethane? ;
162
methane;
!methane;
163
cMethane!ready;
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methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
pcommand == stop;
else;
else;
skip;
43
37
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
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pstate == running;
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73
skip;
pstate = methanestop;
pumpOn = true;
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124
else;
33
82
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
else;
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
else;
130
pumpOn = false;
133
131
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skip;
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pstate = running;
101
138
135
skip;
skip;
skip;
pstate = lowstop;
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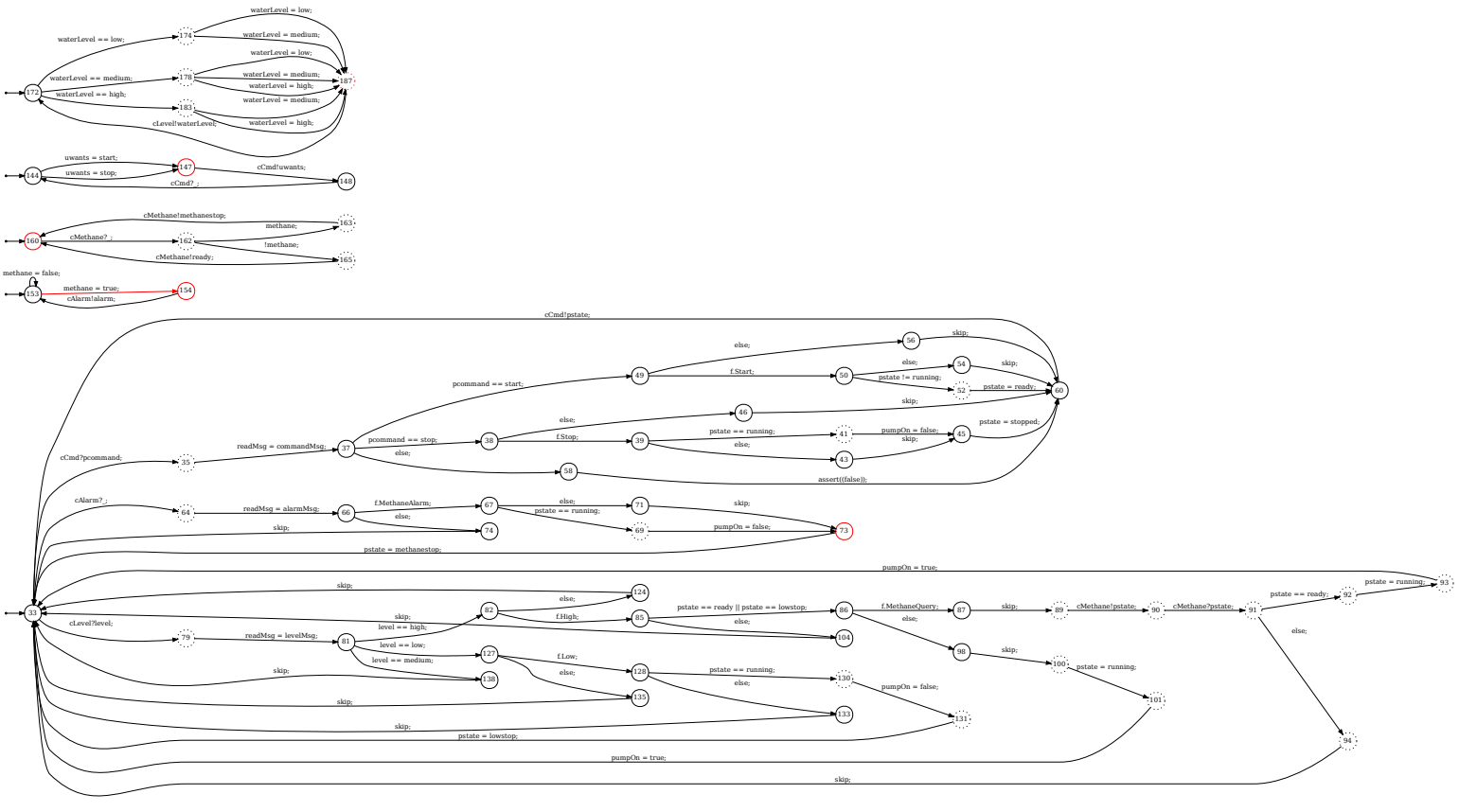
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
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163
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cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
f.Start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
38
f.Stop;
39
else;
else;
43
skip;
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58
assert((false));
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
67
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pumpOn = false;
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pumpOn = true;
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else;
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skip;
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pstate = running;
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cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
pstate == running;
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pumpOn = false;
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138
135
skip;
skip;
skip;
pstate = lowstop;
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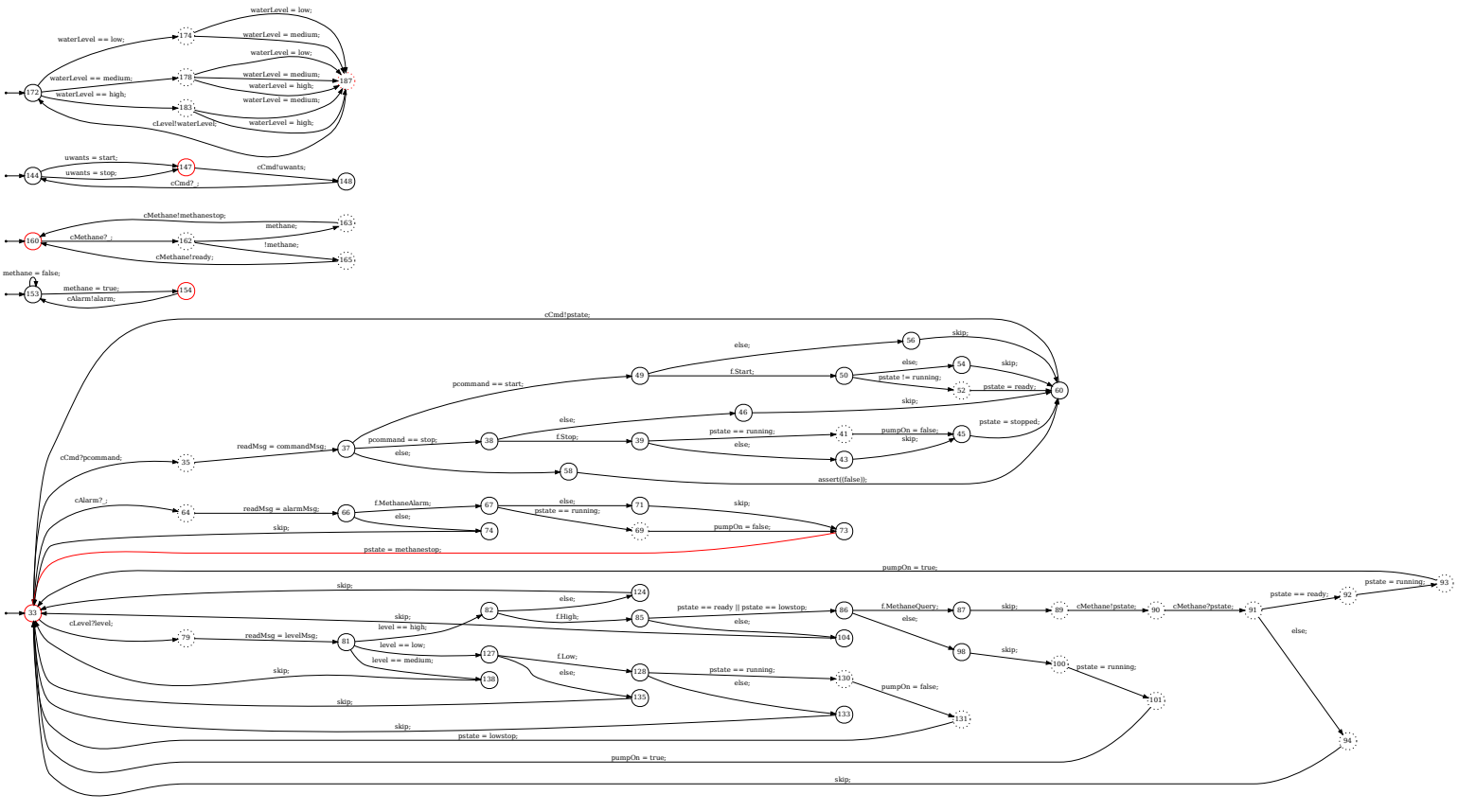
waterLevel = low;
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waterLevel = medium;
waterLevel = low;
waterLevel == medium;
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waterLevel = medium;
waterLevel = high;
187
172
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uwants = stop;
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skip;
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50
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38
f.Stop;
39
pstate == running;
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pumpOn = false;
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pstate = stopped;
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readMsg = commandMsg;
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pcommand == stop;
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73
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pstate = methanestop;
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else;
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pstate = running;
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128
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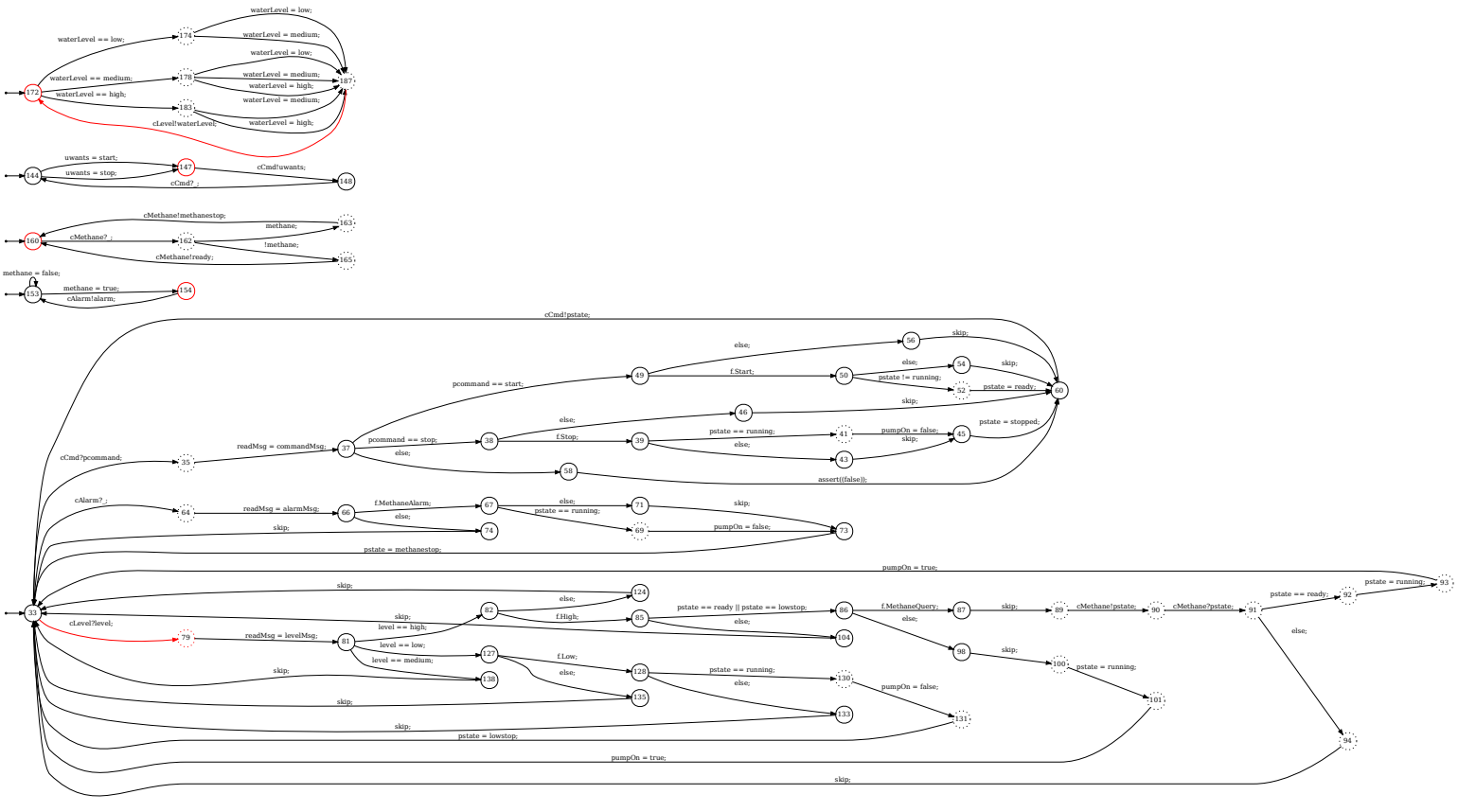
pumpOn = true;
skip;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187
waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
41
pumpOn = false;
45
pstate = stopped;
skip;
f.Stop;
39
pstate == running;
else;
43
38
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
else;
98
skip;
100
pstate = running;
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pstate == ready;
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pstate = running;
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pstate = lowstop;
pumpOn = true;
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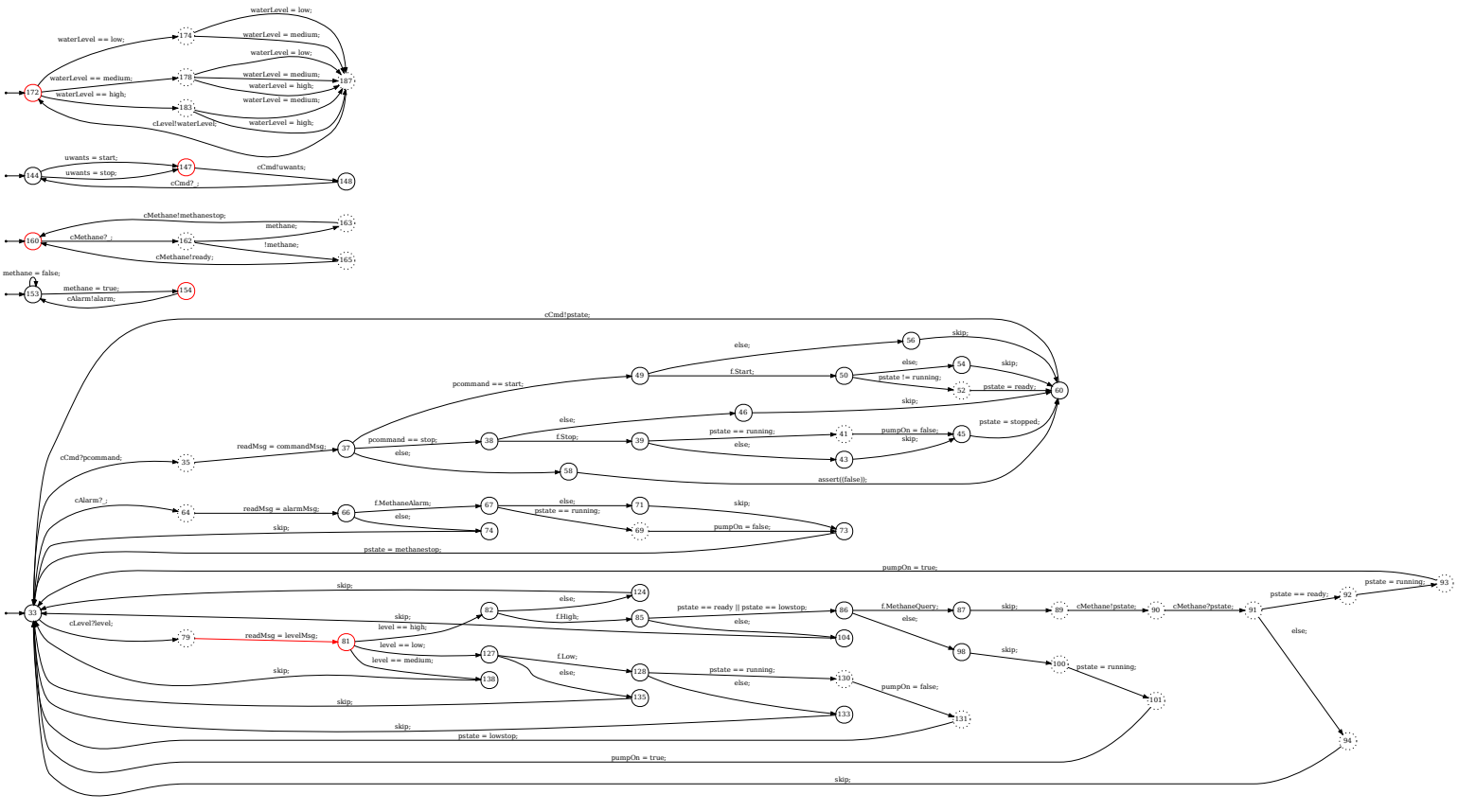
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methane = true;
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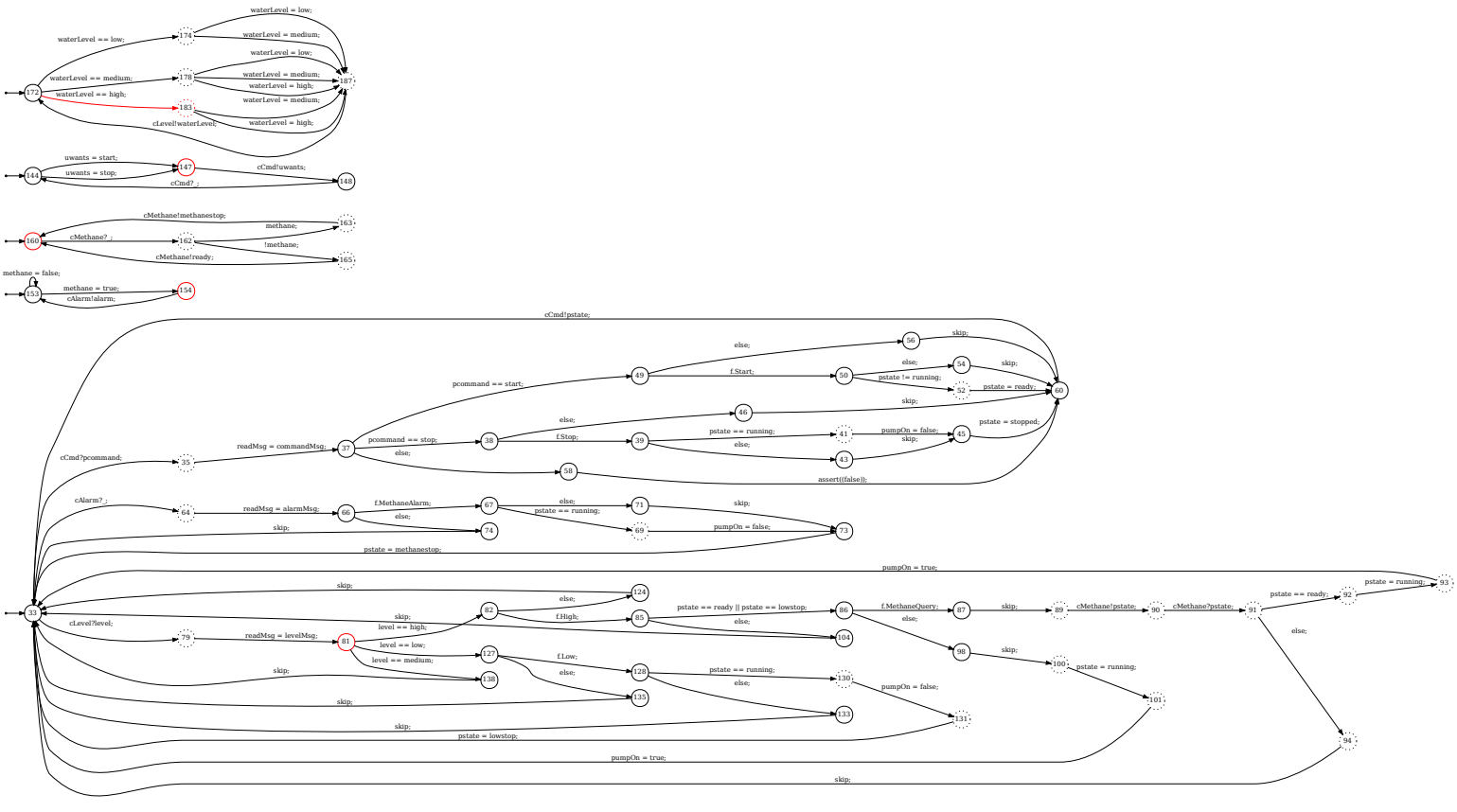
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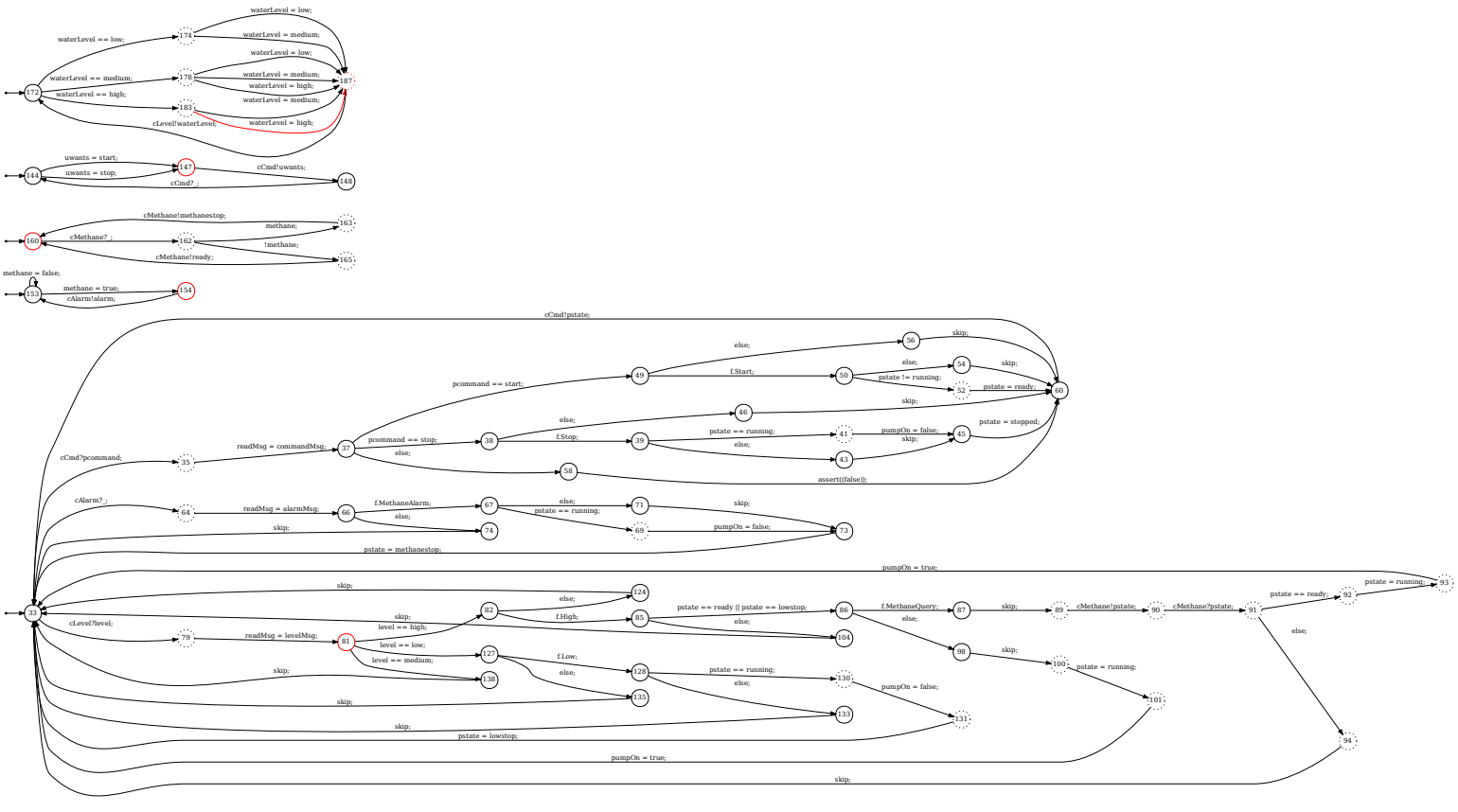
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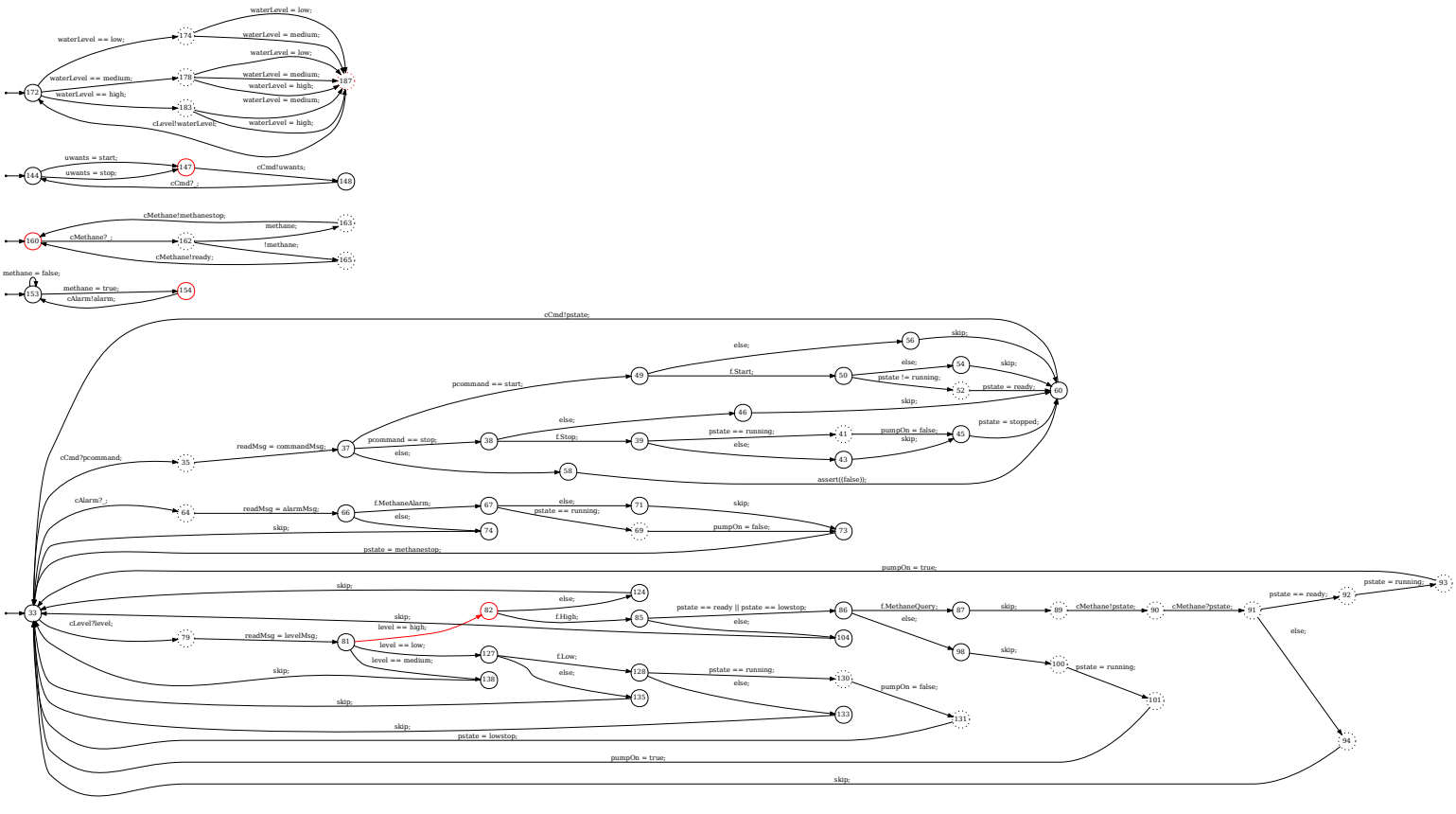
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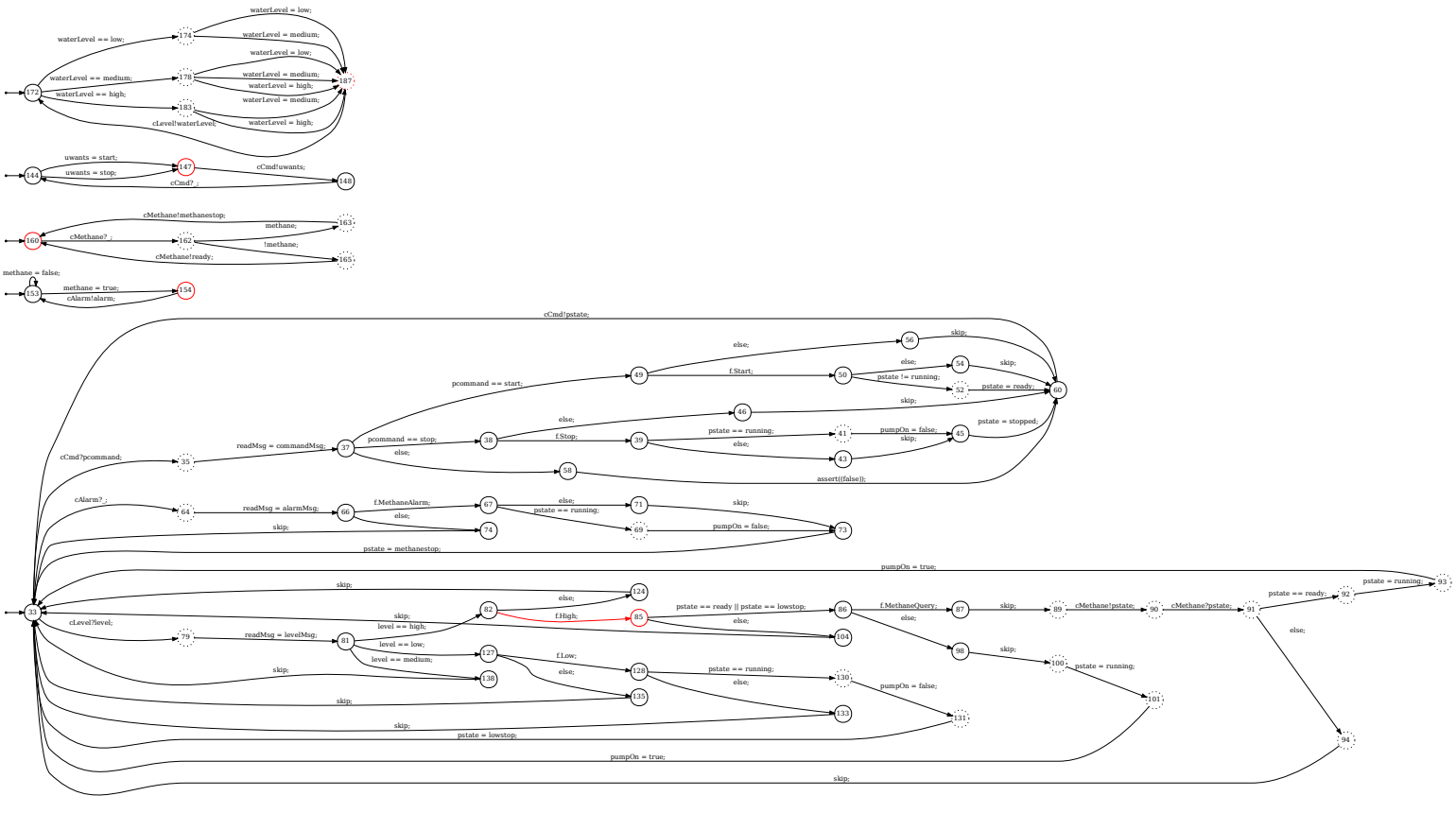
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waterLevel = medium;
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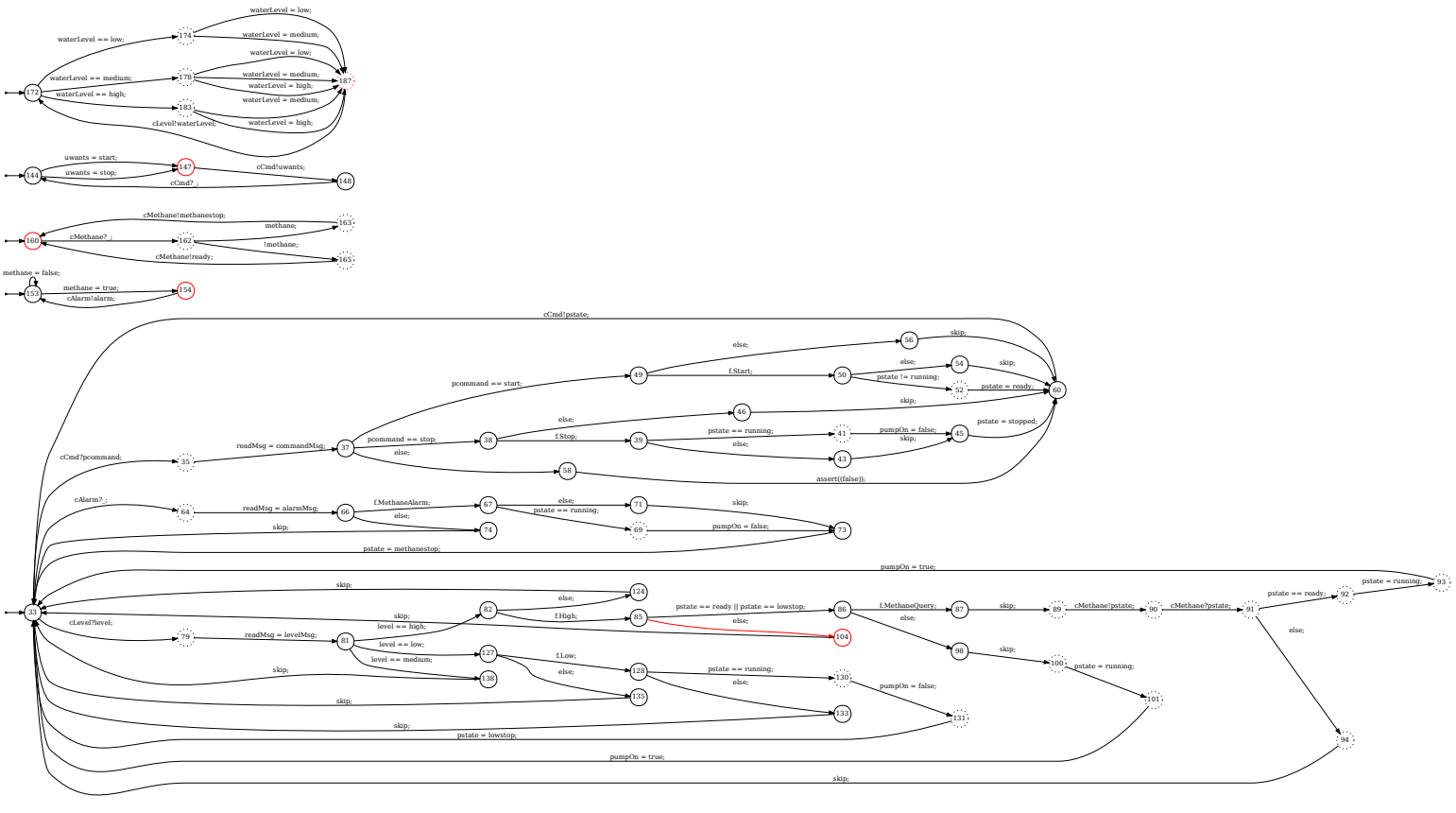
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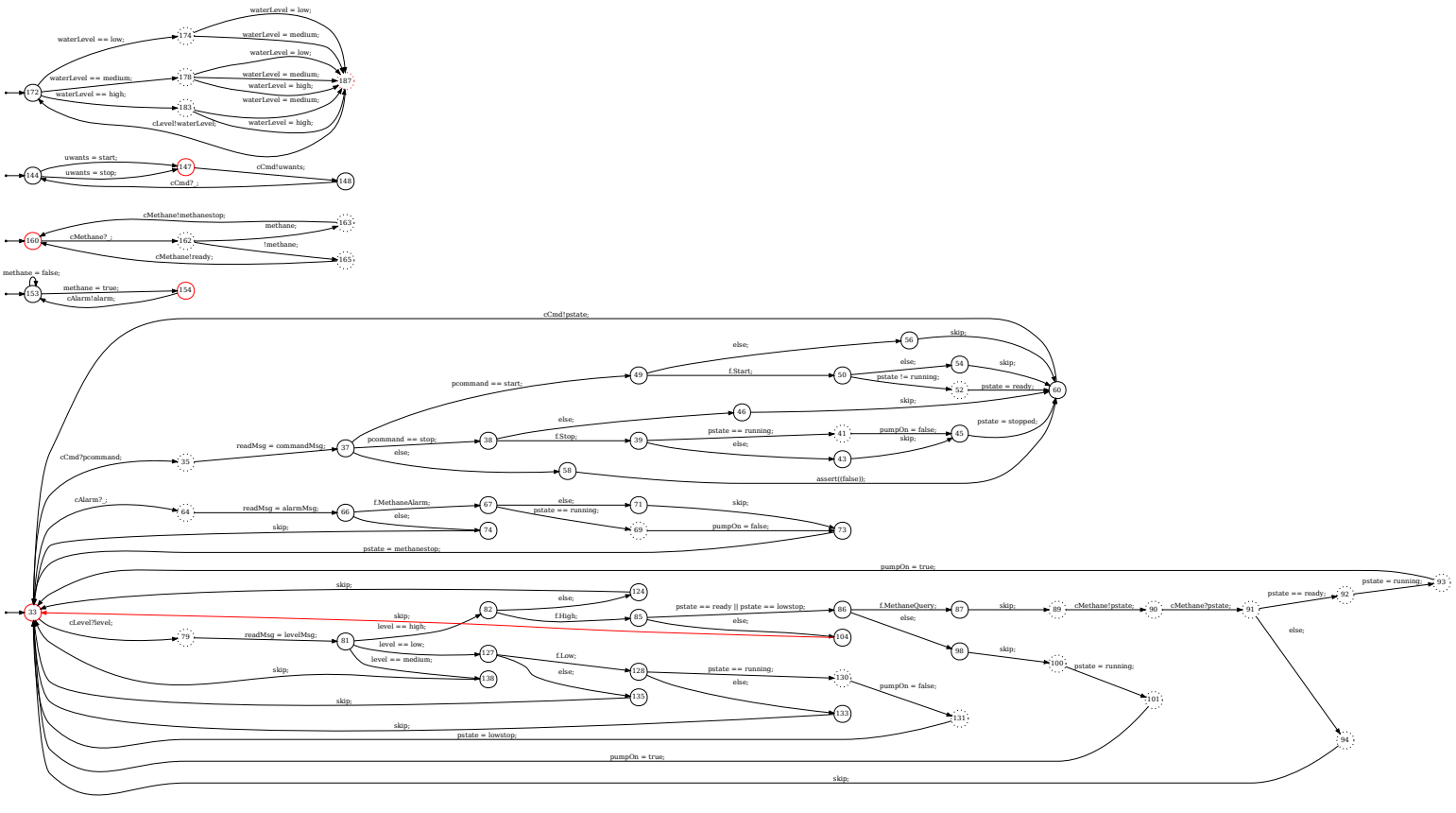
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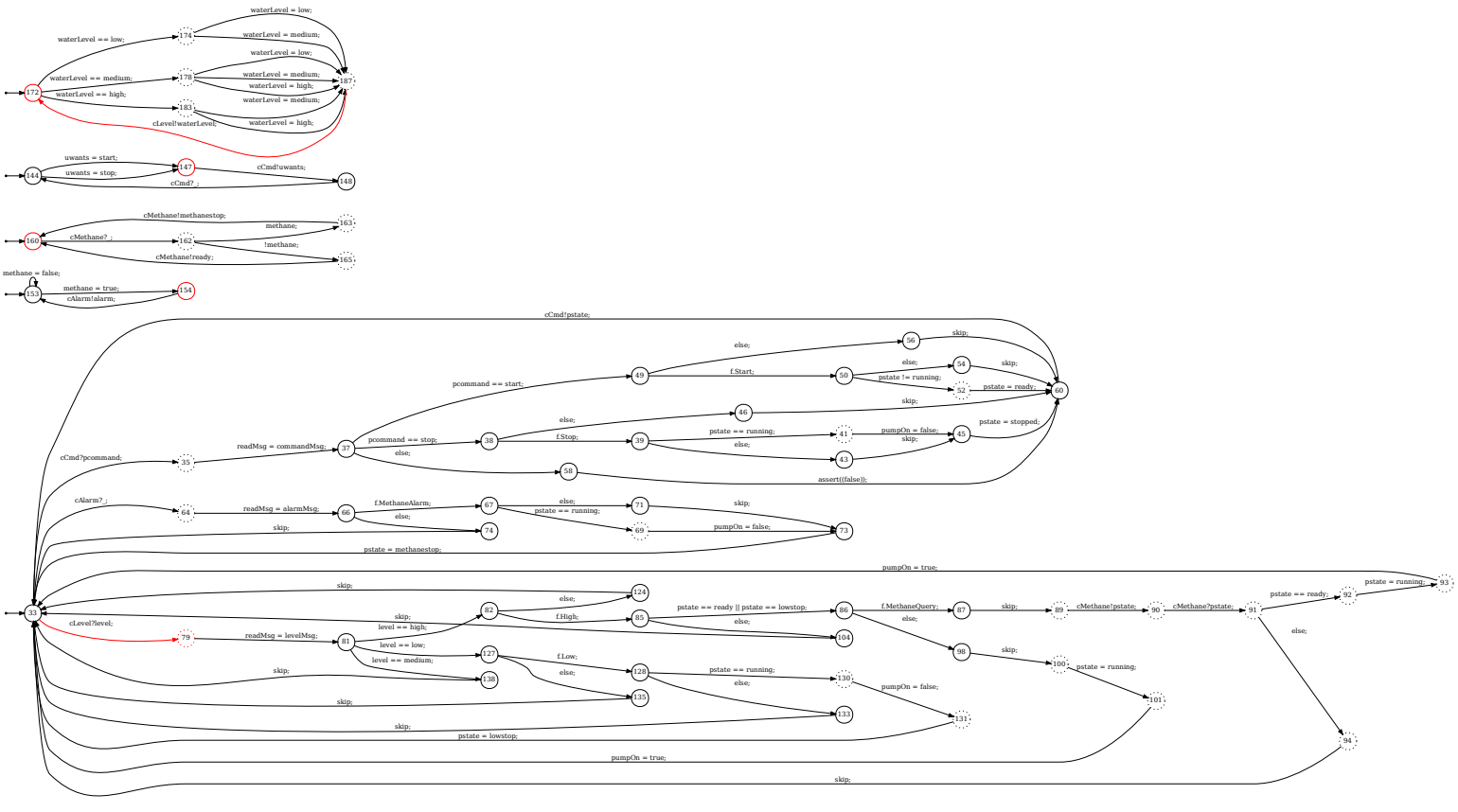
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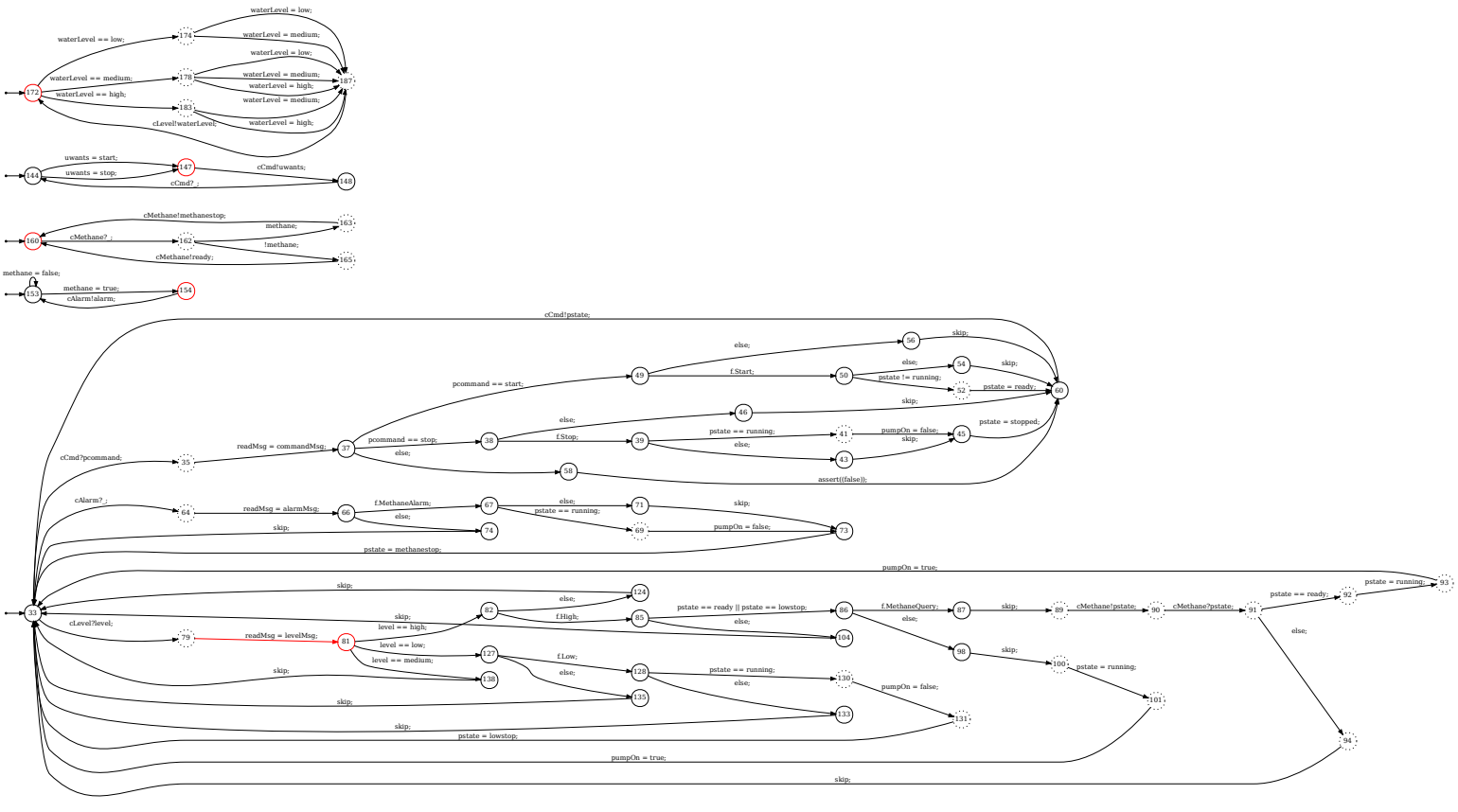
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waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
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waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
56
skip;
else;
54
else;
skip;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
skip;
46
else;
41
pstate == running;
pumpOn = false;
45
pstate = stopped;
skip;
else;
43
else;
38
f.Stop;
39
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
138
135
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
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skip;
100
pstate = running;
101
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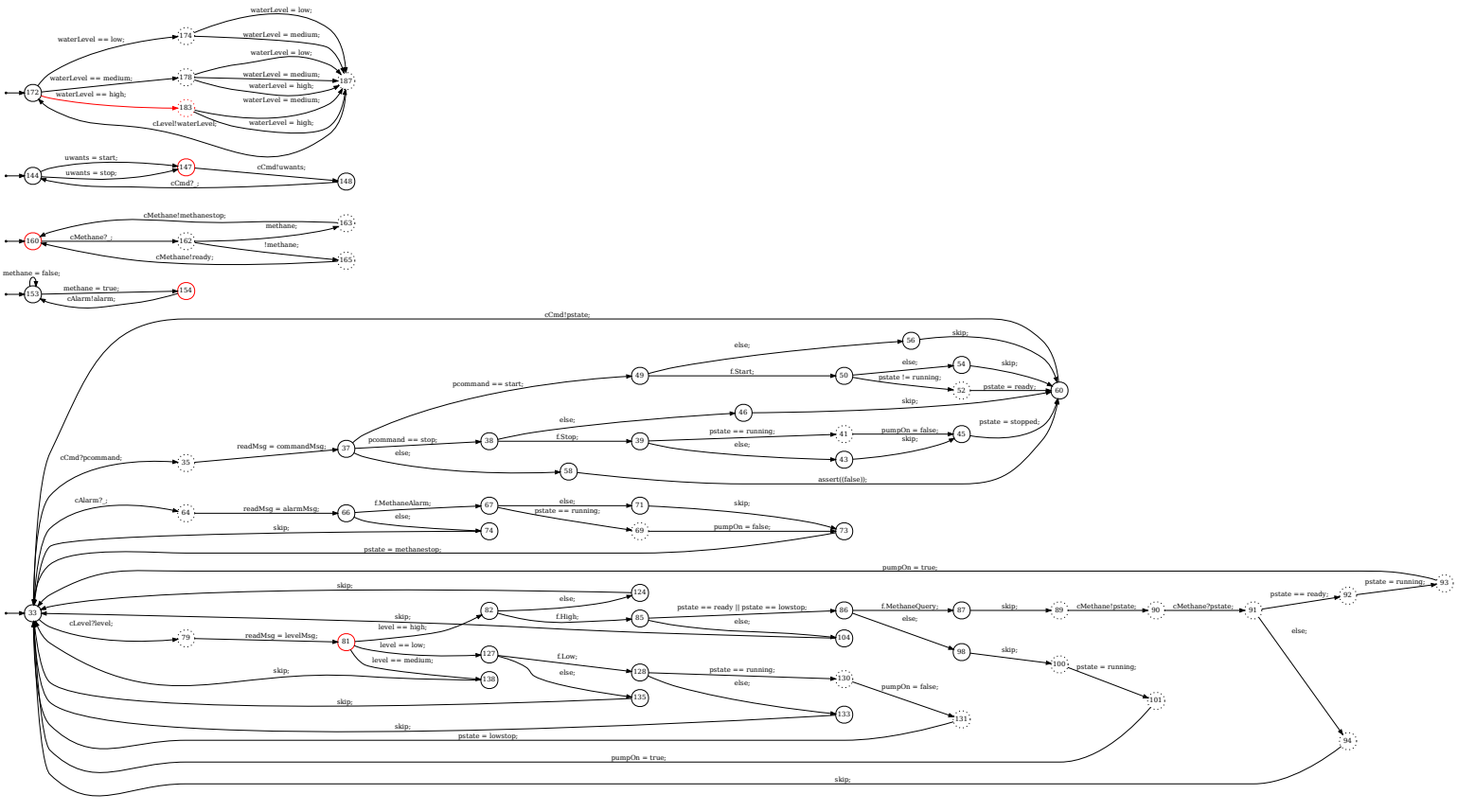
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waterLevel == low;
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waterLevel = high;
waterLevel == high;
waterLevel = medium;
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148
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160
162
163
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154
methane = false;
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54
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pcommand == start;
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43
38
f.Stop;
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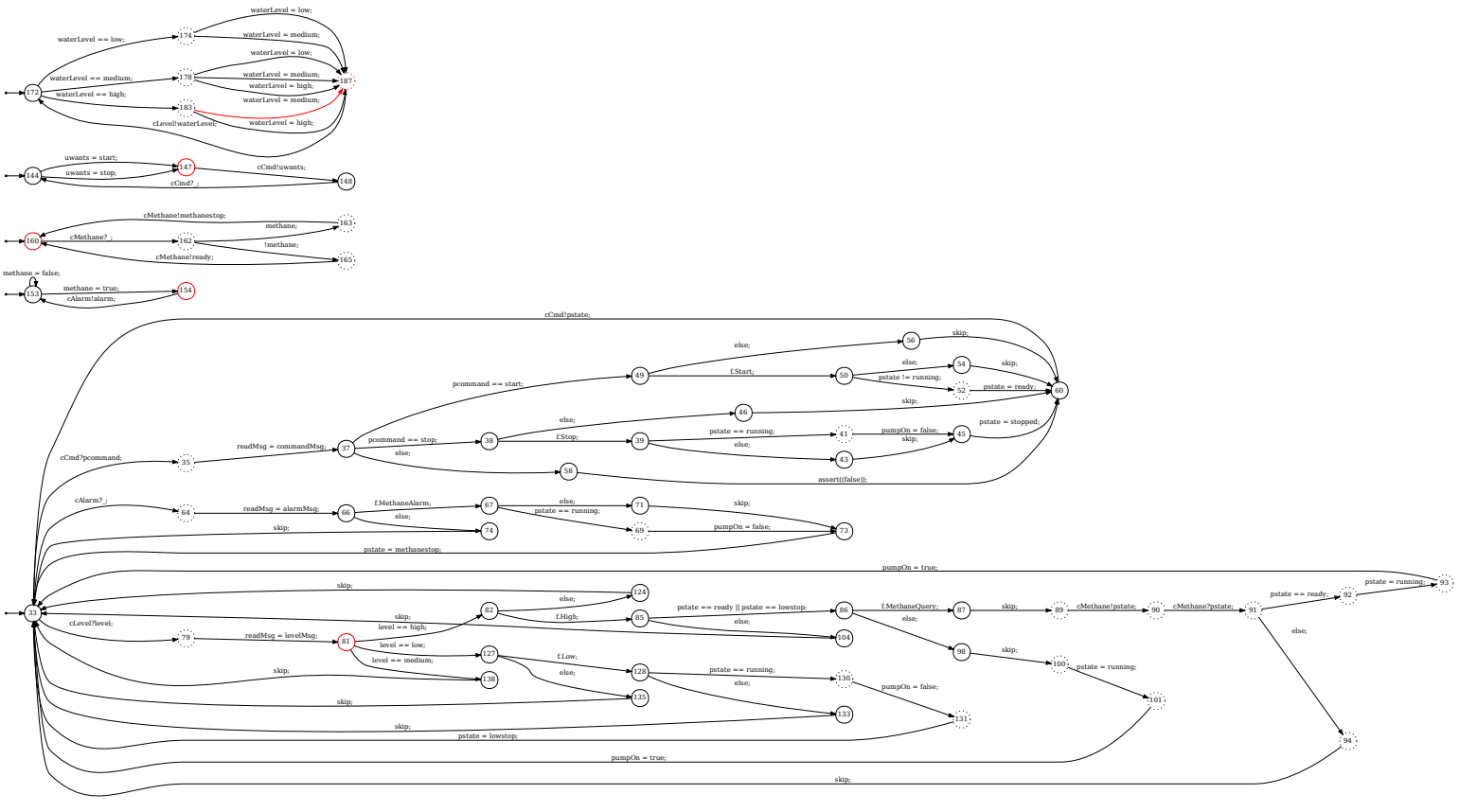
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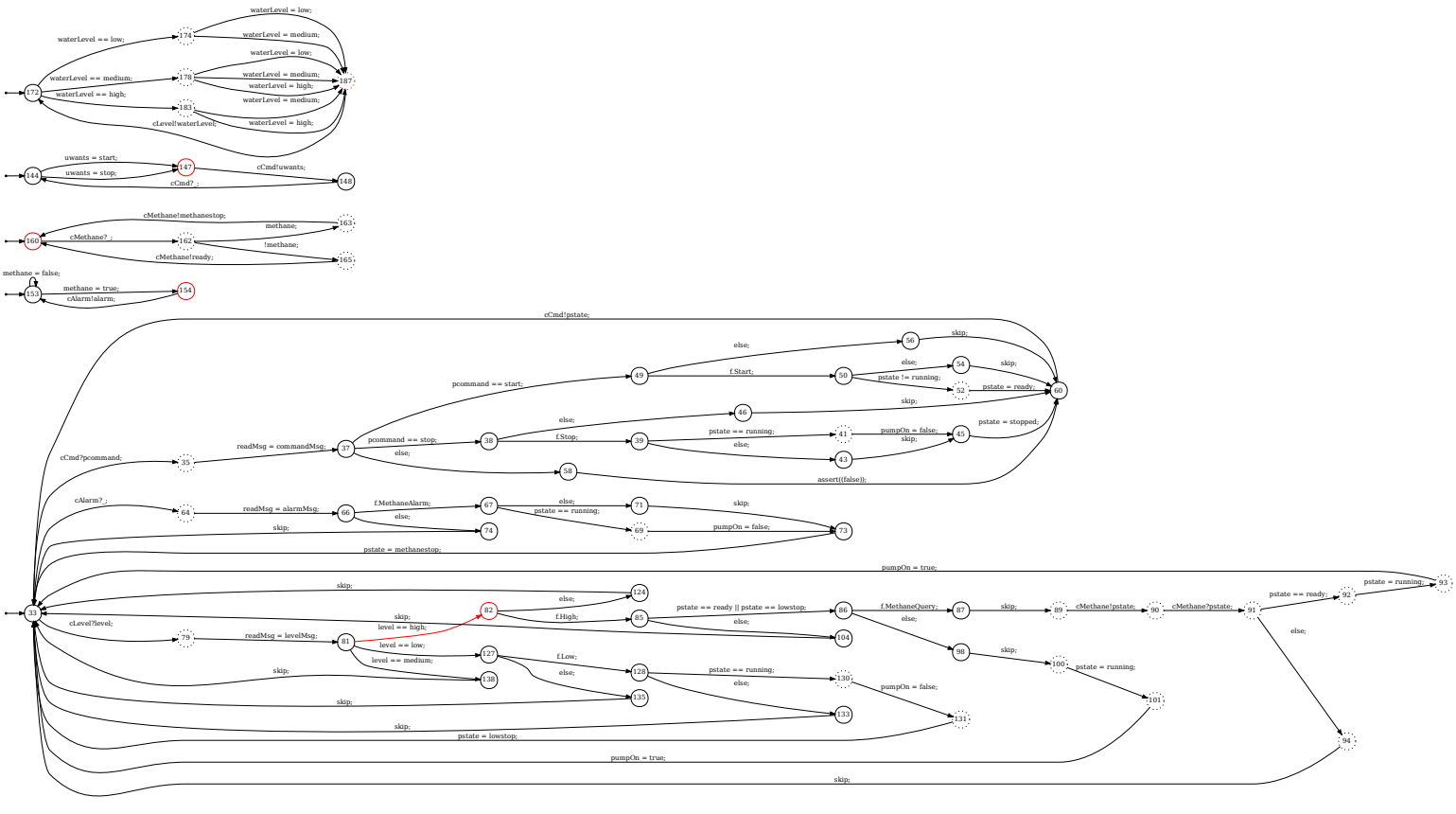
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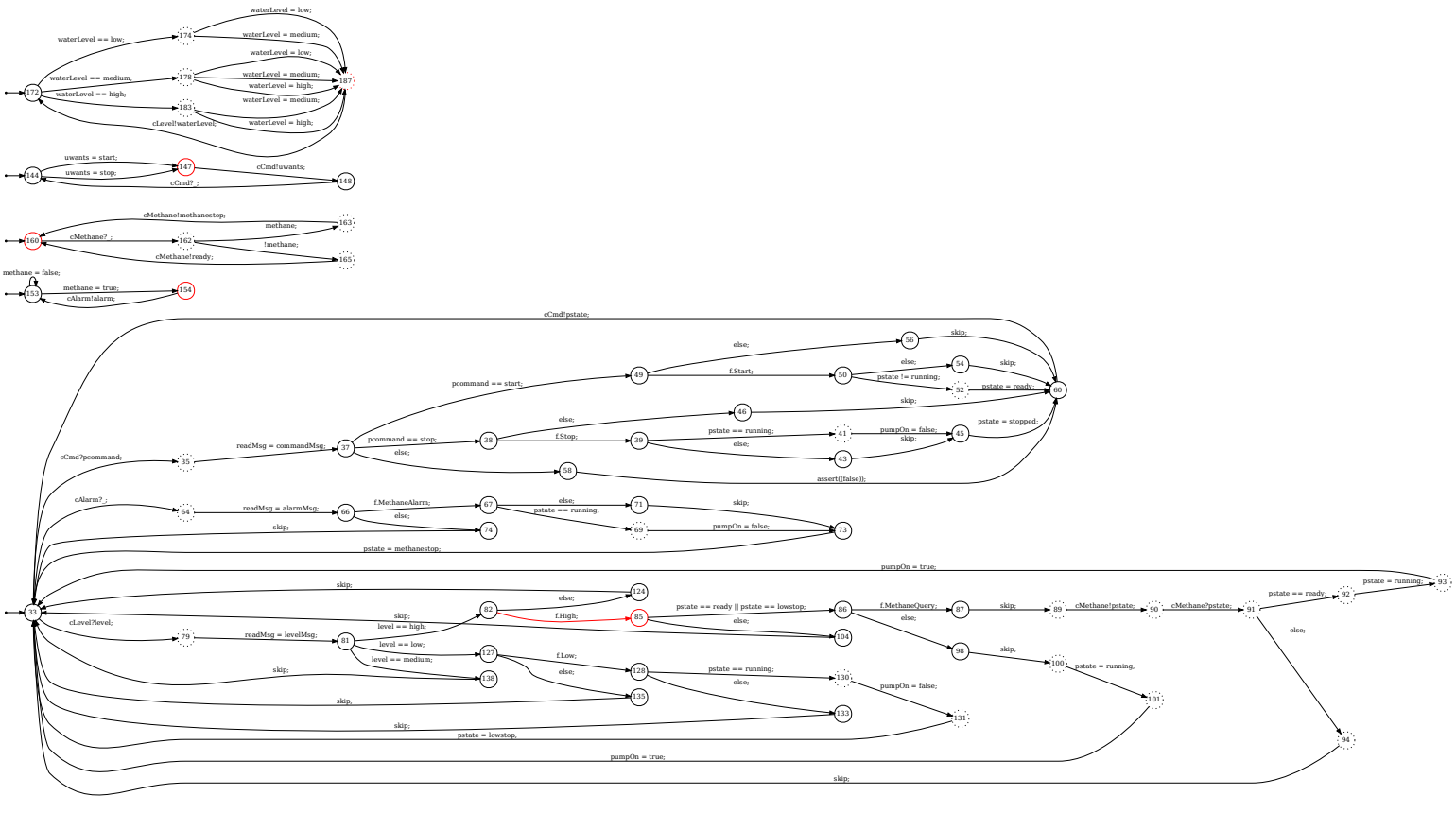
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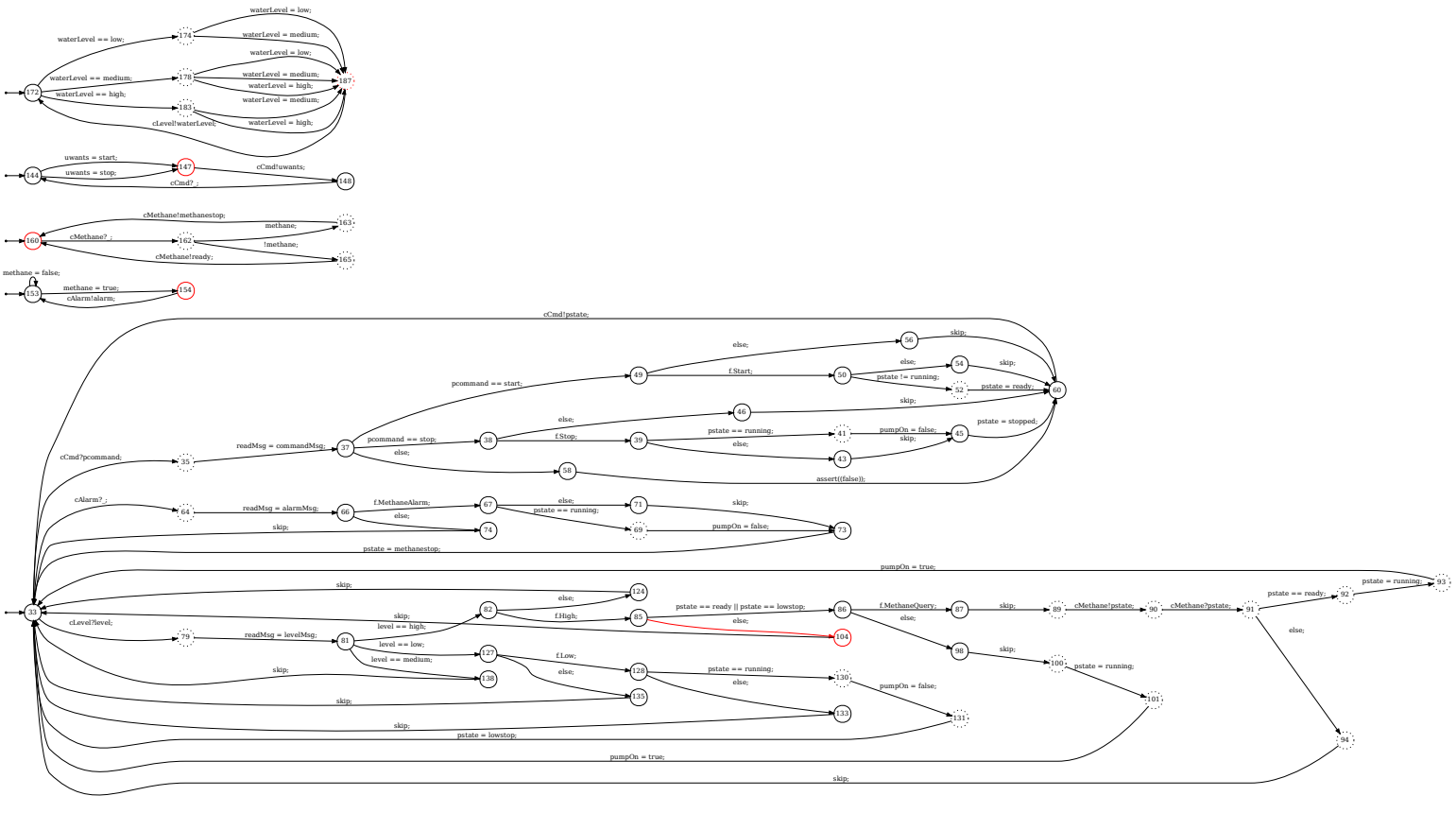
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160
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pstate = lowstop;
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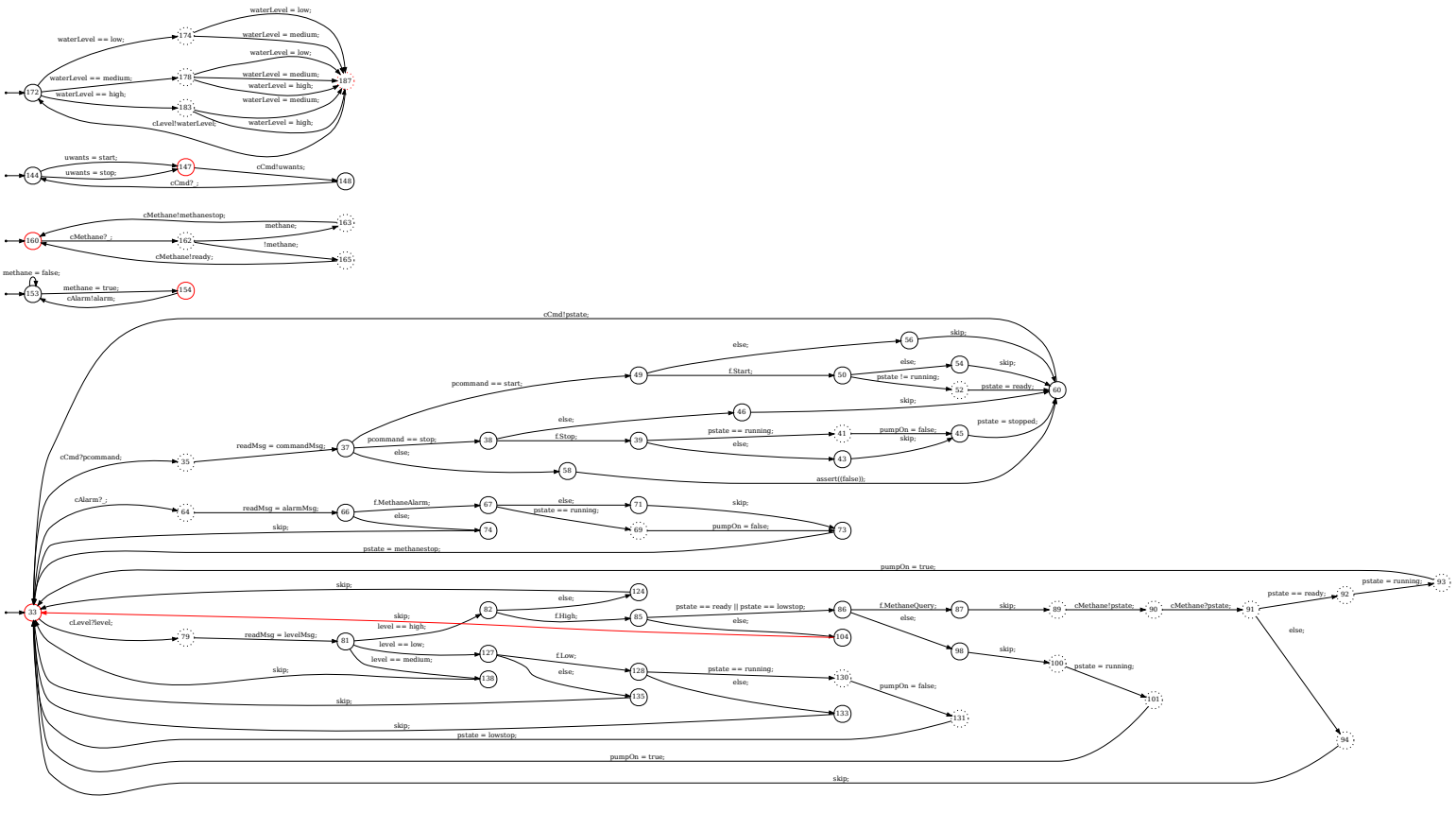
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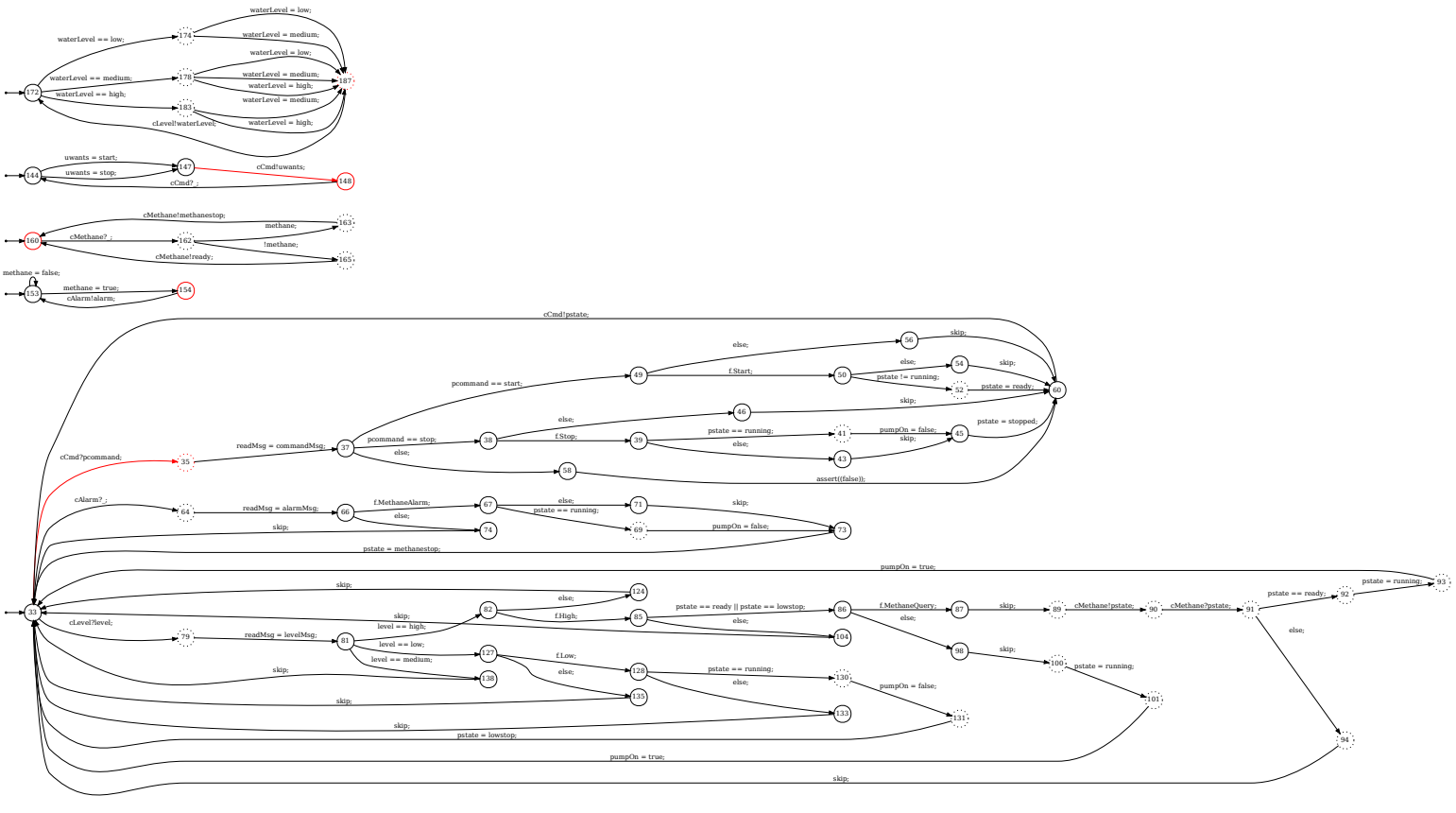
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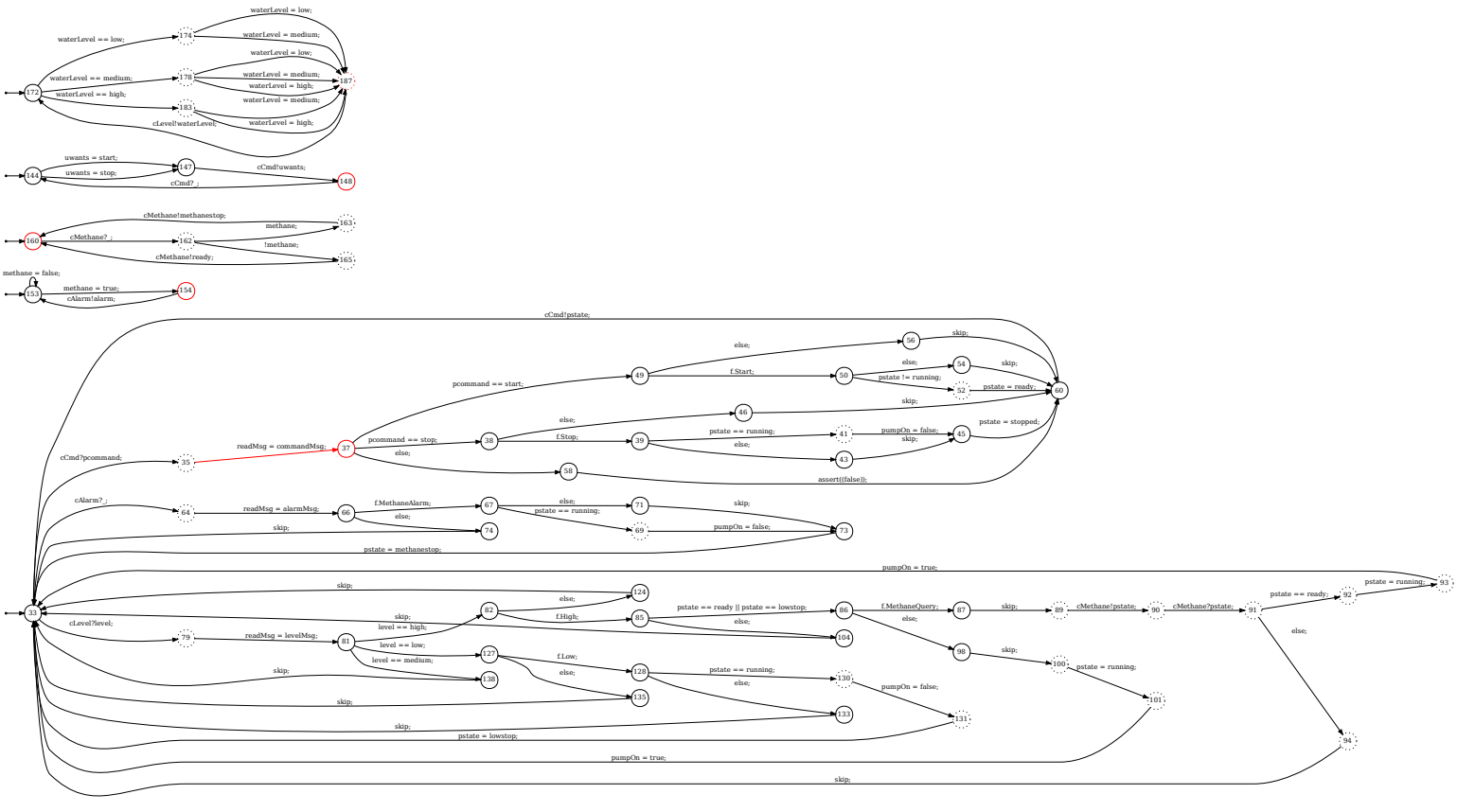
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127
level == medium;
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f.Low;
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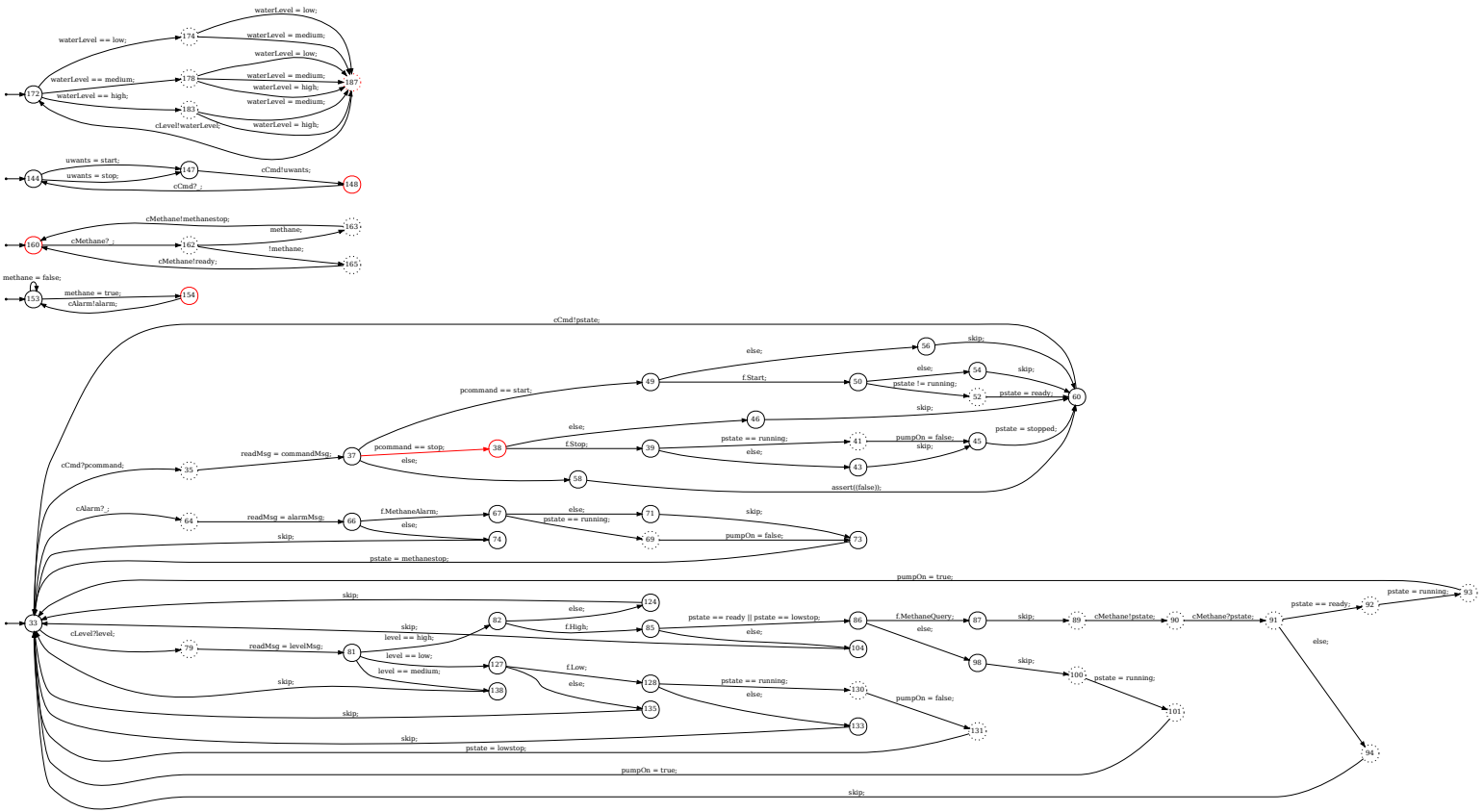
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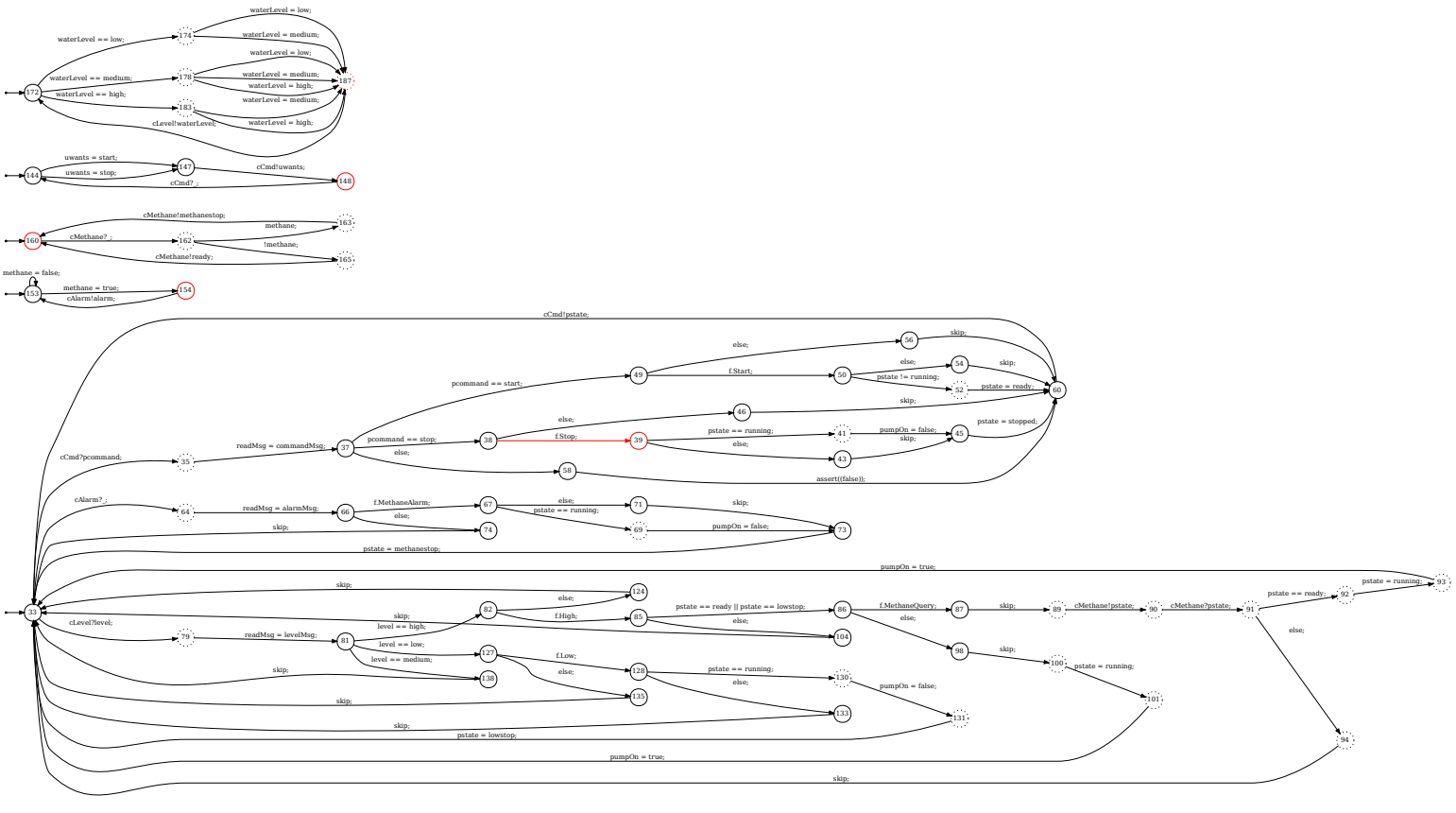
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
49
f.Start;
50
pstate != running;
52
pstate = ready;
60
pcommand == start;
46
skip;
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
45
pstate = stopped;
else;
43
skip;
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
71
skip;
pstate == running;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
138
135
133
131
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
98
skip;
100
pstate = running;
101
94
pstate == running;
else;
130
pumpOn = false;
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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waterLevel == low;
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waterLevel = low;
waterLevel = medium;
waterLevel == medium;
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waterLevel = medium;
waterLevel = low;
waterLevel = high;
waterLevel == high;
183
waterLevel = medium;
waterLevel = high;
cLevel!waterLevel;
187
144
uwants = start;
uwants = stop;
147
cCmd!uwants;
cCmd? ;
148
160
cMethane? ;
cMethane!methanestop;
162
methane;
!methane;
163
cMethane!ready;
165
methane = false;
153
methane = true;
cAlarm!alarm;
154
cCmd!pstate;
56
skip;
else;
54
skip;
else;
50
pstate != running;
52
pstate = ready;
49
f.Start;
pcommand == start;
60
skip;
46
else;
38
f.Stop;
39
pstate == running;
41
pumpOn = false;
skip;
45
pstate = stopped;
else;
43
else;
58
assert((false));
cCmd?pcommand;
35
readMsg = commandMsg;
37
pcommand == stop;
else;
cAlarm? ;
64
readMsg = alarmMsg;
66
f.MethaneAlarm;
else;
67
else;
pstate == running;
71
skip;
74
69
pumpOn = false;
73
skip;
pstate = methanestop;
pumpOn = true;
33
skip;
124
else;
82
f.High;
85
else;
104
cLevel?level;
79
readMsg = levelMsg;
81
skip;
level == high;
level == low;
level == medium;
127
f.Low;
else;
128
else;
130
pumpOn = false;
131
138
135
133
skip;
skip;
skip;
pstate = lowstop;
pstate == ready || pstate == lowstop;
86
f.MethaneQuery;
else;
87
skip;
89
cMethane!pstate;
90
cMethane?pstate;
91
pstate == ready;
92
pstate = running;
93
else;
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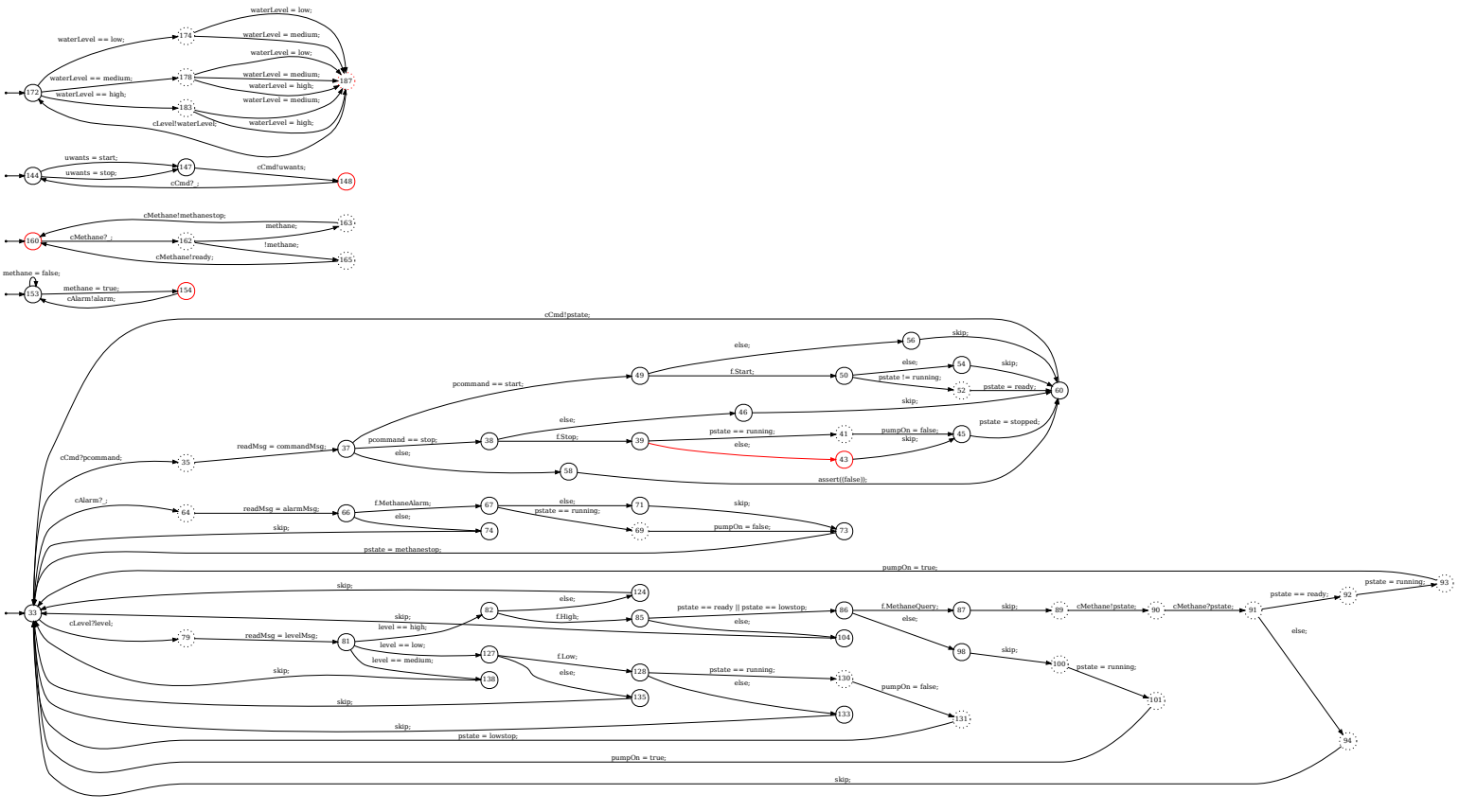
skip;
100
pstate = running;
101
94
pumpOn = true;
skip;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waterLevel == low;
waterLevel = low;
waterLevel = medium;
waterLevel == medium;
waterLevel = medium;
waterLevel = low;
waterLevel == high;
waterLevel = high;
waterLevel = medium;
cLevel!waterLevel;
waterLevel = high;
144
147
148
uwants = start;
uwants = stop;
cCmd!uwants;
cCmd? ;
160
162
163
165
cMethane!methanestop;
cMethane? ;
methane;
!methane;
cMethane!ready;
153
154
methane = false;
methane = true;
cAlarm!alarm;
cCmd!pstate;
35
37
38
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41
43
45
46
49
50
52
54
56
58
60
cCmd?pcommand;
readMsg = commandMsg;
pcommand == start;
else;
skip;
f.Start;
else;
pstate != running;
else;
skip;
pstate = ready;
skip;
else;
f.Stop;
pstate == running;
else;
pumpOn = false;
skip;
pstate = stopped;
else;
assert((false));
64
66
67
69
71
73
74
cAlarm? ;
readMsg = alarmMsg;
f.MethaneAlarm;
else;
else;
pstate == running;
skip;
pumpOn = false;
skip;
pstate = methanestop;
pumpOn = true;
33
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98
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124
127
128
130
131
133
135
138
skip;
else;
cLevel?level;
readMsg = levelMsg;
skip;
level == high;
level == low;
level == medium;
f.High;
else;
pstate == ready || pstate == lowstop;
f.MethaneQuery;
else;
skip;
cMethane!pstate;
cMethane?pstate;
pstate == ready;
pstate = running;
else;
skip;
pstate = running;
f.Low;
else;
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else;
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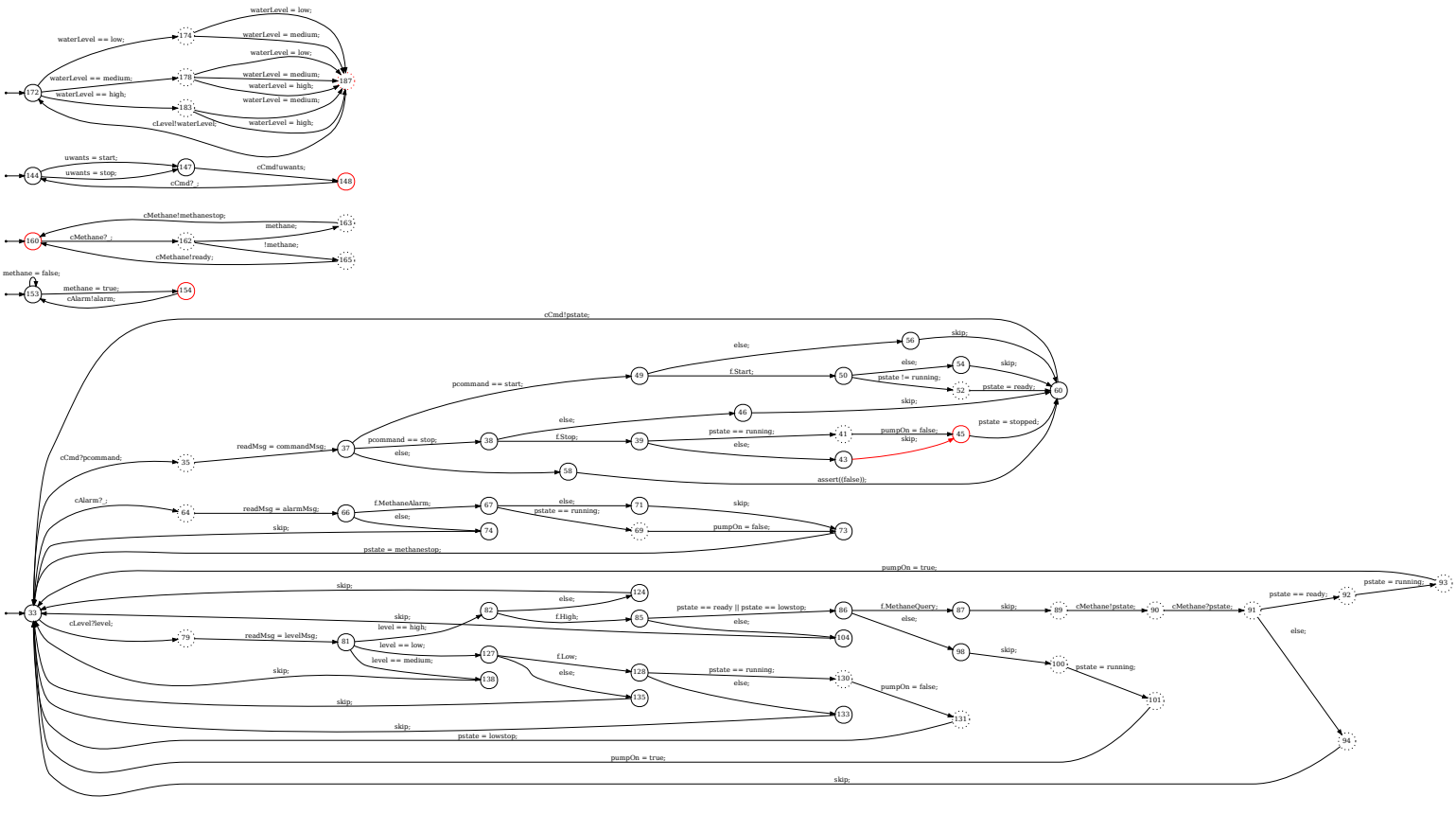
skip;
skip;
pstate = lowstop;
pumpOn = true;
skip;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pstate = lowstop;
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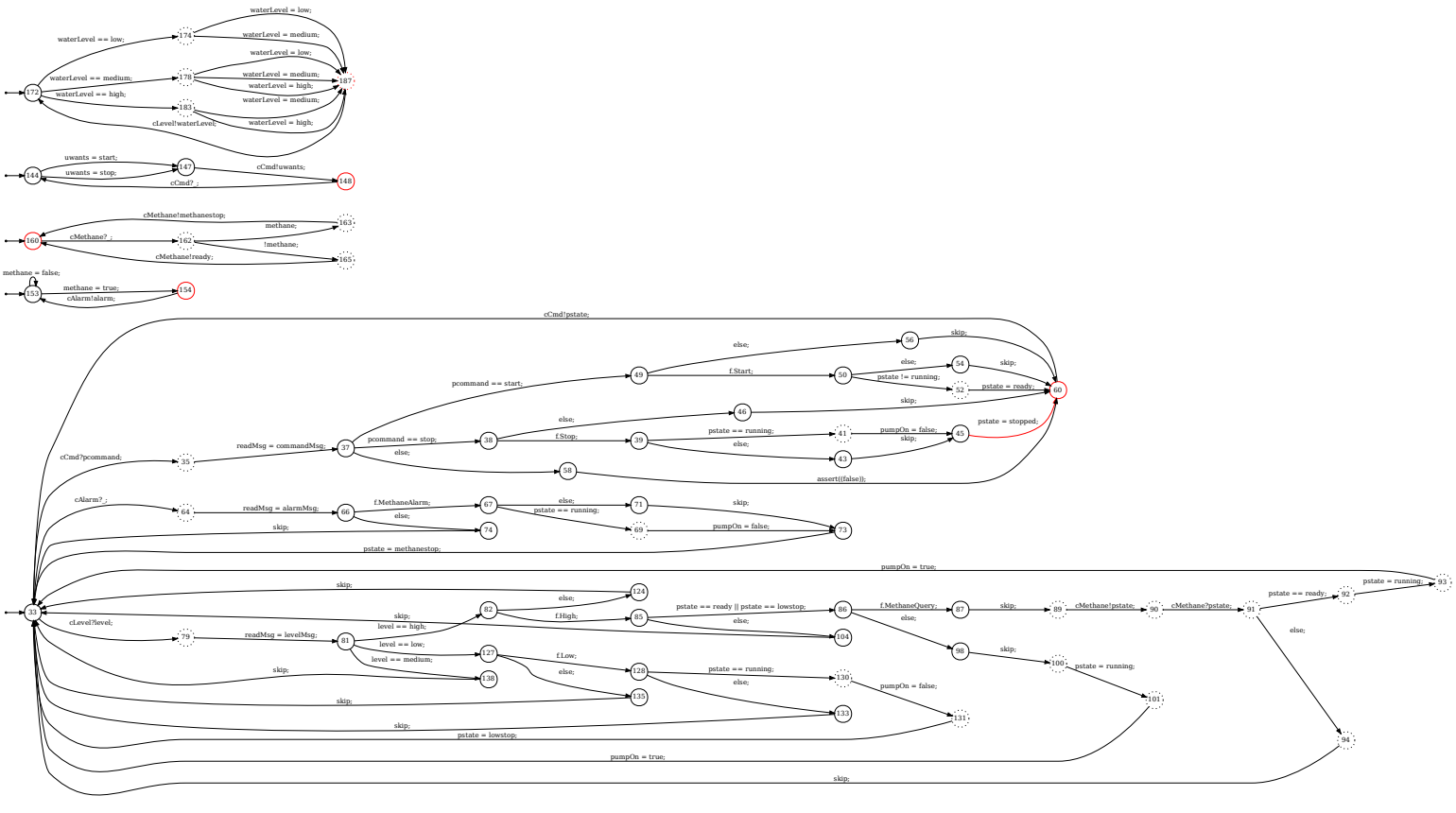
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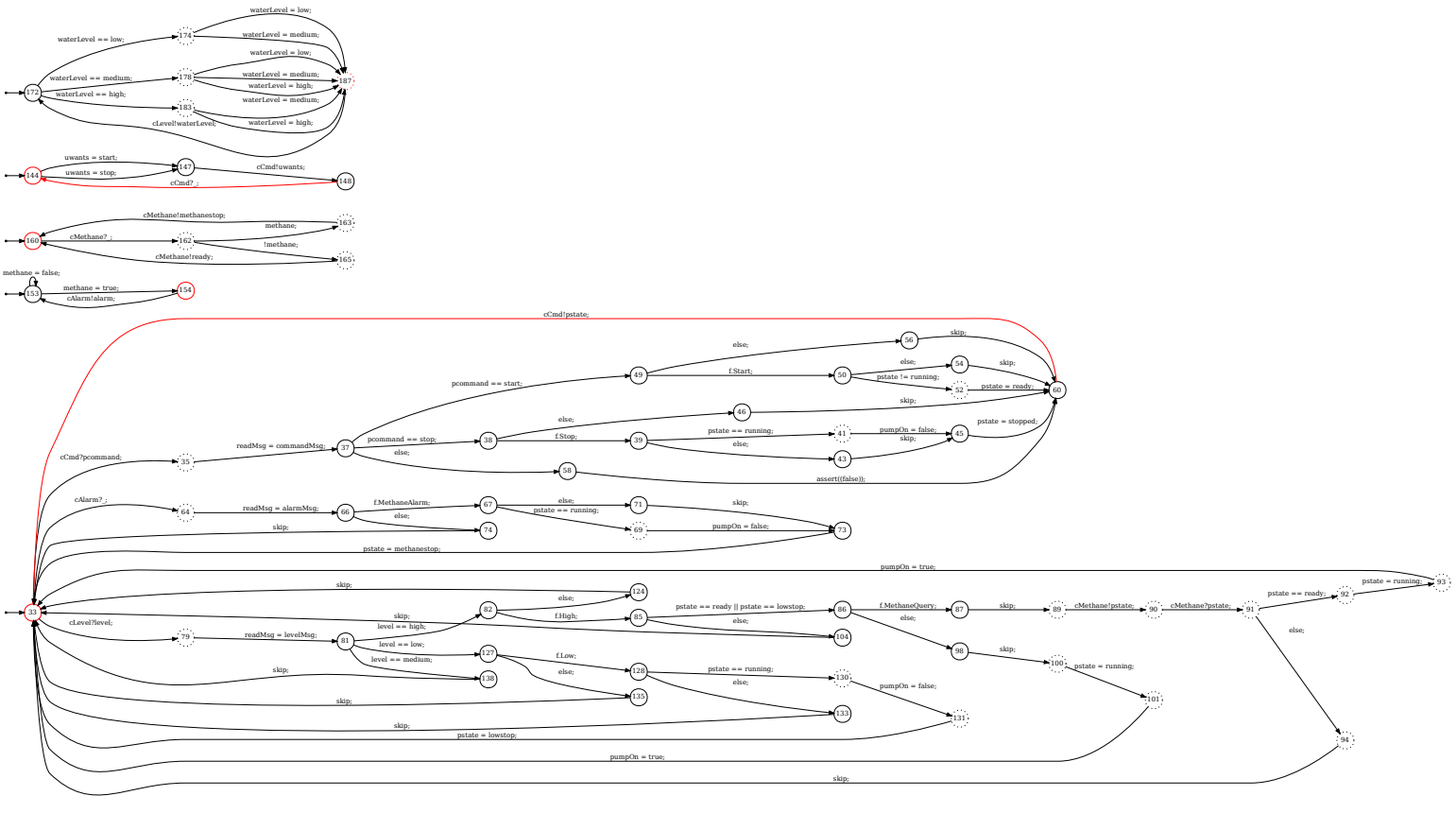
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