FuelCell Addendum – Standby Mode Support

D. Johnson, Scribner Associates Inc.

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Introduction

FuelCell versions 4.01 and later have an optional function that will control the Standby Mode. The Standby Mode is a special alarm mode where an alarm signal causes the Load Unit to apply a user specified current. This current will be maintained until a user manually resets the system.

It is compatible with Scribner 850/890 Fuel Cell Test System firmware version 4.07 or later.
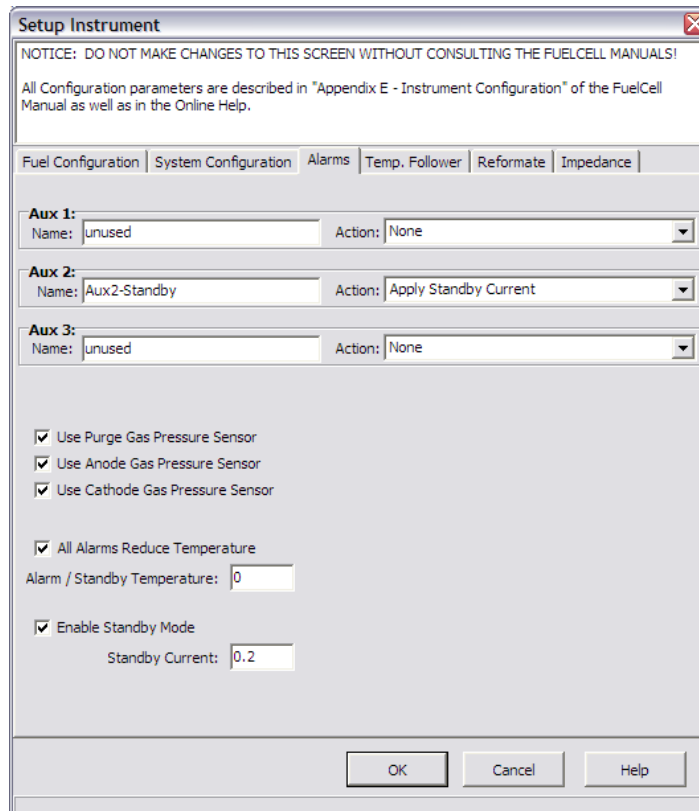
FuelCell Software Version 4.01 or later is required.

SAI890OLE Version 4.0b or later is required.

Procedure

1) To enable the Standby Mode:

 Start the FuelCell program and click File | Instrument Configuration…

On the Alarms tab, check **Enable Standby Mode**. If a communications error occurs and the software cannot communicate with the hardware for more than 10 seconds, the Load Unit will automatically apply the specified **Standby Current**.

Note that the Aux 1, 2, 3 alarms can also be configured to apply the Standby Mode.

Save the configuration settings and restart FuelCell.

2) Manual Configuration: The Instrument Configuration, shown in #1 above, can also be configured by manually editing the FuelCell.ini file using Notepad.

Go to C:\FuelCell\ and double-click on the "fuelcell.ini" file.

Add the Mode12=10 and StandbyI=0.2 values to the [Alarm] section as shown below. Note that Alarm 6 is the "Aux 2" alarm and Mode6=10 will cause an Aux 2 alarm to activate the Standby Mode.

[Alarms]
Text5=unused
Mode5=0
Text6=Aux2-Standby
Mode6=10
Text7=unused
Mode7=0
TemperatureMode=1
Temperature=0
;Mode12=host comms, creates alarm type 10=standby mode
Mode12=10
StandbyI=0.2

3) When the Standby Mode is activated, it will be maintained, even if the FuelCell software is terminated, or even if the PC is rebooted.

If the PC is rebooted or FuelCell is terminated in Task Manager and restarted, the software does not know the state of the 890 Load Unit. It must Reset the Standby mode, and then Restart the system. This will turn off all temperature controllers and reset gas flows.
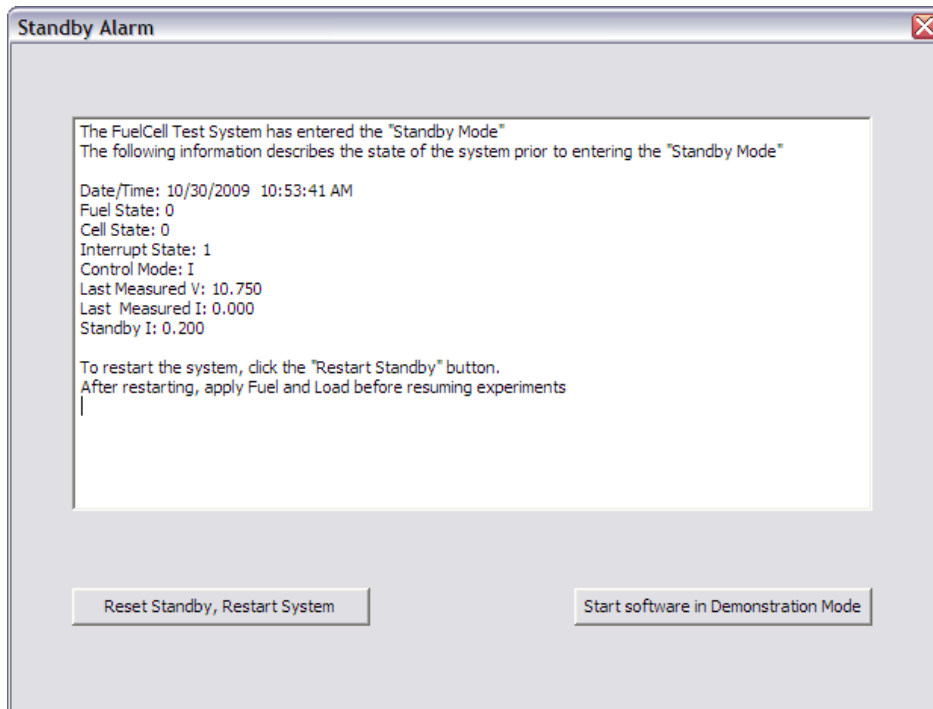
4) If the Standby Mode is activated and communications continue with the 850/890 (no software restart), FuelCell will show an alarm message. In this example, the Aux 2 alarm signal has triggered the Standby Mode.
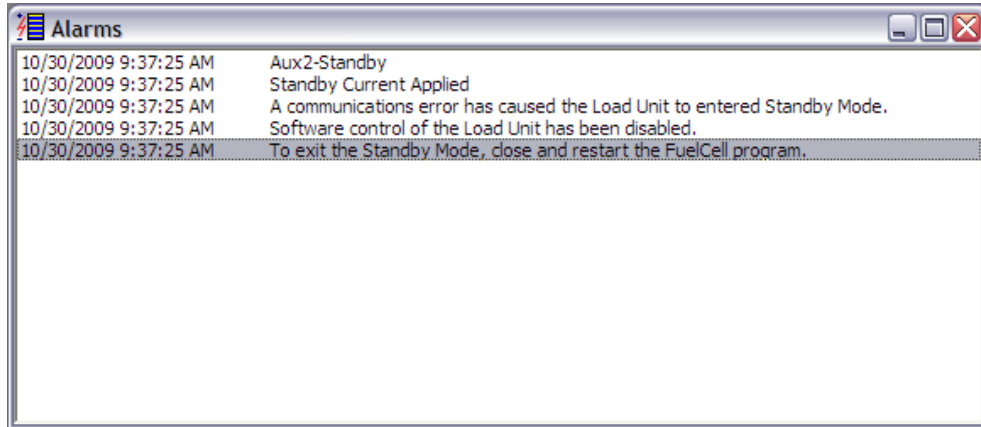
After this message is shown, the FuelCell program cannot operate the Load Unit. The software must be closed and restarted.