



***"Eddy's Boilerhouse News"***  
***By Eddy Emerson, Emerson Boiler***

NEWSLETTER ASME CSD-1 Controls and Safety Devices for Automatically Fired Boilers – Series CSD-1 Letter 10.

CSD-1 Part CF-300 Gas-fired Boiler Units, Safety Controls

CF-310 Primary Safety Controls, states that, "each main burner assembly shall be provided with a primary safety control that will de-energize the main gas shutoff valves and shut off pilot fuel upon loss of flame". This control is generally referred to as the Flame Safeguard Control (I believe Honeywell came up with this name about a million years ago). Thanks Honeywell, it a good descriptive name.

The Primary Safety Control along with the flame rod or scanner is responsible to start the burner sequence and supervise the flame during operation. In the past these control were broken up into two groups, primary controls and programming controls. That is no longer applicable because the controls have gotten so advanced that even basic flame safeguard controls operate much like the more complex controls. Therefore, we will simply refer to them as *Flame Safeguard Controls* or *Primary Safety Controls*.

The code states that, a "primary safety control shall bear a label and/or be listed by a nationally recognized testing agency". This statement has led to the question of using rebuilt Primary Safety Controls. Can rebuilt Primary Safety Controls be used? ASME ruled on this years ago and their answer was, no! One word answer, I like that. The rebuilders of Primary Safety Controls may not be putting out a dangerous product (they would not still be in business if they were) but, they are putting out a product that is not reliable. What do I mean by that? These rebuilt controls may have thousands of hours of use and hundreds of thousands of cycles on them. When you buy a rebuilt control it may have been cleaned and one or two parts replaced but the control still has all those hours and cycles. It does not meet code and is simply not reliable. Remember manufacturers of American made Flame Safeguard Controls have great warranties were as foreign controls and rebuilt controls do not. That is enough of that, back to the code.

CF-310 also asserts that, "primary safety controls shall require local manual intervention by an operator or service technician to reset. Devices that can electronically reset without local manual intervention, such as when power to the device is interrupted and then restored, shall not be permitted".

This means that if there is a flame failure it cannot be remotely reset. Someone needs to go push the button. Whoever pushes that button should also know what that control does and why they are pushing it. I find a lot of janitors or night watchmen who are told to check that boiler and if the alarm is sounding, just push the button. When a reset button is pushed on a boiler control, that is not the fix. The reset is to tell us we have a problem that needs to be looked into. If the reset on a Flame Safeguard Control is pushed and the burner starts it cycle, that tells us that there has been a problem with the flame or something related to the flame.

This remotely reset comes up often, an operator or supervisor wants to reset the Primary Safety Control from the comfort of their office chair. This is not a good idea. A gas line may have split apart and then the control went into flame failure from lack of gas to the burner, but it is filling the boiler room with gas. If the control were remotely reset the entire boiler

room may go up in smoke. The boiler blows up and then the operator or supervisor may be resetting the control from the comfort of their wheel chair. This is a good safety code.

Be Safe.

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**PHOENIX, AZ (FEBRUARY 8-12, 2010) 40 HOUR BIA RECERTIFICATION**

**PHOENIX, AZ (FEBRUARY 22-26, 2010) 40 HOUR BIA RECERTIFICATION**

**PHOENIX, AZ (MARCH 8 - 19, 2010) 80 HOUR BIA CERTIFICATION**

**PHOENIX, AZ (MARCH 22-26, 2010) 40 HOUR BIA RECERTIFICATION**

**PHOENIX, AZ (APRIL 5 - 9, 2010) 40 HOUR BIA RECERTIFICATION**

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