1. Chair’s welcome, call to order, and opening remarks at 8:00 a.m. EST.
2. Self-Introduction of Committee Members and Guests
3. Approval of Minutes from the January 2013 First Draft meeting held in Orlando. The minutes are posted on the NFPA 85 document information page, www.nfpa.org/85next.
4. Staff Liaison Report
   A. NFPA Policies and Procedures
   B. Revision Cycle Review and timeline (Attachment A)
   C. Committee Membership Update (For the period from Dec 21, 2012 through Dec 10, 2013)

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<td>Qingshen Lin</td>
<td>M (Principal)</td>
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<td>03/07/2013</td>
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<tr>
<td>Vaughn Boley</td>
<td>I (Principal)</td>
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<td>07/29/2013</td>
</tr>
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<td>Adam Farnham</td>
<td>SE (Alt to M. Fecke)</td>
<td>Appoint</td>
<td>10/23/2013</td>
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(Total Voting Members: 13. M = 31%; SE = 31%; U = 31%; I = 8%)

5. Old Business
   **ASTM E1226.** The TC established a task group to look specifically at ASTM E 1226. ASTM E 1226 requires that test samples have 95% of sample capable of passing through a 200 mesh screen (smaller than 75 microns). This is smaller than what is typically encountered in a pulverized fuel system within the scope of NFPA 85. Therefore, the P(max) of 120 barg may be overly conservative. The task group will investigate industry data on particle size and may recommend modifications to the strength of equipment requirements accordingly. The task group members are Bill Martin and Qingsheng Lin.
6. New Business
   A. Review BCS-PFS Public Comments (Attachment B)
   B. Glossary Review. The NFPA Manual of Style requires that only terms appearing in the mandatory text be defined in the chapter 3 glossary of each document. NFPA Staff reviewed chapter 3 of NFPA 85 and identified many definitions that do not appear in the mandatory text (Attachment C). The BCS-FUN committee took action in the First Draft to remove definitions for these terms. The PFS committee didn’t have time to review this item in the First Draft meeting. The committee should review chapter 3 to determine if any definitions need to be retained in chapter 9.
   C. BCS-FUN Second Revisions (Attachment D). The committee should review the actions of the Fundamentals committee to determine if any revisions are needed in chapter 9 to override chapters 1-4.


8. Other Items?

9. Date/Location of Next Meeting. This concludes the committee work for the 2014 revision cycle. The next meeting will be scheduled as needed.

10. Adjournment.
Attachment A: 
NFPA F2014 Revision Cycle
## 2014 FALL REVISION CYCLE

*Public Input Dates may vary according to documents and schedules for Revision Cycles may change. Please check the NFPA Website for the most up-to-date information on Public Input Closing Dates and schedules at [www.nfpa.org/document](http://www.nfpa.org/document) (i.e. www.nfpa.org/101) and click on the Next Edition tab*

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Attachment B: Public Comments
Chapter 9 Pulverized Fuel Systems

9.1 Application.

9.1.1* This chapter shall cover only those fuels with a volatile content of 8 percent or greater on a moisture-free basis.

9.1.2 This chapter shall exclude those systems that have an oxygen content greater than 21 percent, which require special attention.

9.2 Purpose.

9.2.1 The purpose of this chapter shall be to establish minimum requirements for design, installation, operation, and maintenance of pulverized fuel systems.

9.2.2 This chapter shall apply to any retrofit that involves replacement of the entire pulverized fuel system as defined in 9.4.1.1 and 9.5.1.1.

9.2.3 For less than total system replacement, components shall meet the requirements of this chapter or the original code or standard of construction.

9.3 General.

9.3.1* Functional Requirements.

9.3.1.1 Because fires and explosions are most likely to occur during start-up or shutdown or after an emergency trip, pulverized fuel systems and their components shall be designed for and capable of continuous operation.

9.3.1.2 Interruptions of pulverized fuel systems shall be kept to an absolute minimum because of the combustible and explosive nature of the pulverized fuels.

9.3.1.3 The pulverized fuel system shall be designed to meet the demands of the system that it serves over the required range of operation.

9.3.1.4 The pulverized fuel system shall be designed and operated to enable the safe removal of foreign material.

9.3.2* Hazards in Pulverized Fuel Systems.

Design, operation, control, and maintenance of a pulverized fuel system shall address inherent hazards. The prevention of such conditions shall include but not be restricted to the necessary control of the following:

(1) Feeding of raw fuel into the pulverizer
(2) Influx of hot air or flue gas into the pulverizer
(3) Influx of tempering air into the pulverizer
(4) Influx of vent air into the pulverizer
(5)* Influx of ambient air into negative-pressure indirect-fired systems

9.3.3 The system arrangement shall be such that it provides only one possible direction of flow (i.e., from the points of entrance of fuel and air to the point of discharge), which can be either a furnace or a transport and collection system.

9.3.4 The system shall include indicators and annunciators that provide the operator with all necessary information about significant operating conditions, both normal and abnormal, throughout the system.
9.7.4.2.1 Starting Sequence.
The starting sequence shall be as follows:
(1) Start the pressure lock.
(2) Start the primary air fan or exhauster.
(3) Start the air heaters, if furnished.
(4) Start the pulverizer.
(5) Start the raw fuel feeder.
(6) Adjust the primary air and fuel to the desired value.

9.7.4.2.2 Normal Operation.
Normal operation shall be as described in 9.6.2.2.

9.7.4.2.3 Normal Shutdown.
The normal shutdown procedure shall be as follows:
(1) Shut off the hot air.
(2) When the pulverizer is cool, stop the raw fuel feeder.
(3) When the pulverizer is empty, stop the pulverizer.
(4) Stop the primary air fan or exhauster.
(5) Stop the pressure lock.

9.7.4.3 Interlocking.
Interlocking shall be as described in 9.4.7.3.

Statement of Problem and Substantiation for Public Comment

CC NOTE: The following CC Note No. 30 appeared in the First Draft Report as First Revision No. 150 and also related to Public Input 152, 161, 162, 163, and 164.

The PFS committee should modify figure 9.4.5.1.2(c) to change “Divider” to “Distributor.” The PFS committee should review 9.4.7.1.1 and 9.4.7.1.3; and 9.5.12.1.1 and 9.5.12.1.3 for consistency. 9.4.7.1.1 and 9.5.12.1.3 state that an inerting system shall be required, but 9.4.7.1.3 and 9.5.12.1.3 imply that the system is optional. The PFS committee should reconsider reference to NFPA 70 in 9.3.7 because the scope of NFPA 70 specifically excludes electric utility plants. The PFS committee should develop annex text to 9.3.1.4 to describe what is meant by “safe removal of foreign material.” The PFS committee should remove unenforceable language from 9.3.4, such that it would read as follows: “The system shall include indicators and annunciators that provide the operator with information about operating conditions, both normal and abnormal, throughout the system.” The PFS committee should review 9.5.2.2 and revise for clarity or develop annex material. The Correlating Committee found the existing paragraph confusing and unenforceable (i.e. “avoid the probability”).

Related Item
First Revision No. 150-NFPA 85-2013 [Chapter 9]
Public Input No. 152-NFPA 85-2013 [Section No. 9.4.6]
Public Input No. 161-NFPA 85-2013 [Section No. 9.4.6.2.9]
Public Input No. 162-NFPA 85-2013 [Section No. 9.5.1.1.2]
Public Input No. 163-NFPA 85-2013 [Section No. 9.5.4.2.2.2(B)]
Public Input No. 164-NFPA 85-2013 [Section No. 9.5.4.3.7 [Excluding any Sub-Sections]]

Submitter Information Verification

Submitter Full Name: CC on BCS-AAC
Organization: CC on Boiler Combustion System Hazards
Street Address: CC on Boiler Combustion System Hazards
City:
9.3.6 Rotary Valves.
Where used as a means for deflagration isolation, rotary valves (material chokes) shall be installed and maintained in accordance with NFPA 69, Standard on Explosion Prevention Systems.

Statement of Problem and Substantiation for Public Comment

Use of the term "material chokes" does not add clarity to many/most users of the code.

Submitter Information Verification

Submitter Full Name: Michael Polagye
Organization: FM Global
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Thu Nov 14 22:00:31 EST 2013

Copyright Assignment

I, Michael Polagye, hereby irrevocably grant and assign to the National Fire Protection Association (NFPA) all and full rights in copyright in this Public Comment (including both the Proposed Change and the Statement of Problem and Substantiation). I understand and intend that I acquire no rights, including rights as a joint author, in any publication of the NFPA in which this Public Comment in this or another similar or derivative form is used. I hereby warrant that I am the author of this Public Comment and that I have full power and authority to enter into this copyright assignment.

By checking this box I affirm that I am Michael Polagye, and I agree to be legally bound by the above Copyright Assignment and the terms and conditions contained therein. I understand and intend that, by checking this box, I am creating an electronic signature that will, upon my submission of this form, have the same legal force and effect as a handwritten signature.
9.4.3.2.2.1 *

All components of the raw fuel feeder system that are designed to be operated at no more than gauge pressure of 13.8 kPa (2 psi) with a design coal having $P_{\text{max}}$ of 10 bar-g or less shall be designed for a maximum allowable working pressure of 344 kPa (50 psi) for containment of possible explosion pressures. $P_{\text{max}}$ is defined as the maximum pressure developed in a contained deflagration for an optimum mixture, which was obtained from ASTM E 1226, Standard Test Method for Explosibility of Dust Clouds.

Statement of Problem and Substantiation for Public Comment

1. $P_{\text{max}}$ is used in the following sections, 9.4.3.2.2.1, 9.4.3.2.2.2, 9.4.3.2.2.3, 9.4.5.1.2.2, 9.4.5.1.2.3, 9.4.5.1.2.4.
2. However, the definition of $P_{\text{max}}$, and the measuring method is not mentioned in chapter 9.
3. Though the definition is mentioned in Annex A, the definition shall be mentioned in main body.

Submitter Information Verification

Submitter Full Name: masahiko mishiro
Organization: Mitsubishi Heavy Industries, ltd.

Copyright Assignment

I, masahiko mishiro, hereby irrevocably grant and assign to the National Fire Protection Association (NFPA) all and full rights in copyright in this Public Comment (including both the Proposed Change and the Statement of Problem and Substantiation). I understand and intend that I acquire no rights, including rights as a joint author, in any publication of the NFPA in which this Public Comment in this or another similar or derivative form is used. I hereby warrant that I am the author of this Public Comment and that I have full power and authority to enter into this copyright assignment.

By checking this box I affirm that I am masahiko mishiro, and I agree to be legally bound by the above Copyright Assignment and the terms and conditions contained therein. I understand and intend that, by checking this box, I am creating an electronic signature that will, upon my submission of this form, have the same legal force and effect as a handwritten signature.
Attachment C:
Review of Definitions in Chapter 3
The following words and phrases do not appear in NFPA 85, appear only in Chapter 3 and/or the Annex materials, or is a repeat of another definition.

Definitions also appear in this list if a similar word or phrase appears in NFPA 85.

Chapter 3  Definitions

3.3 General Definitions. [Note: these words, phrases, and synonyms were highlighted in NFPA 85.]

3.3.6.3 Primary Air (in a Pulverized Fuel System). In a pulverized fuel system, either air or a flue gas–air mixture; can simultaneously also be pulverizer air and/or transport air. The phrase ‘primary air’ appears near ‘pulverizer’ or ‘coal’ in Chapters 1, 3, 6, 9, and Annex A.

3.3.19 Bin System (Storage System). A system in which the fuel is pulverized and stored in bins from which it is withdrawn through feeders, as needed, for burning. The phrase ‘bin system (storage system)’ does not appear anywhere else, however both ‘bin system’ and ‘storage system’ appear individually in the body of the text.

3.3.48 Direct Fired System (Unit System). A system in which the fuel is pulverized and delivered in suspension directly to the burner(s). The phrase ‘direct fire system (unit system)’ does not appear anywhere else, nor does ‘direct fired system.’ ‘Unit system’ appears once in Chapter 9.

3.3.50 Distributor/Divider. A device that splits a single stream of pulverized coal and primary air into two or more streams. The phrase ‘distributor/divider’ does not appear anywhere else, nor does the word ‘divider.’ However, ‘distributor’ does appear in the body of the code.

3.3.60.2 Exhauster Fan. A fan located at the pulverizer outlet used to draw the primary air through the pulverizer and to deliver the primary air–fuel mixture to the burner(s) or other apparatus. Note: only appearance of ‘exhauster fan’ is when the definition for ‘exhauster’ refers to this one.

3.3.72 Friability. The tendency of coal to crumble or break into small pieces. The word ‘frability’ does not appear anywhere else.
3.3.80  **Grindability.** The characteristic of solid fuel that indicates its relative ease of pulverization, as defined by ASTM D 409, *Standard Test Method for Grindability of Coal by the Hardgrove-Machine Method.* _Note:_ ‘grindability’ appears only in the Annex sections.

3.3.113  **Primary Air Fan (Pulverizer-Air Fan).** See 3.3.60.5, Primary Air Fan. _The phrase ‘primary air fan (pulverizer air fan)’ does not appear anywhere else. ‘Pulverizer air fan’ does appear in Chapter 9. ‘Primary air fan’ is a separate definition, and would be considered a repeat here._
Attachment D:
BCS-FUN Second Revisions
Revise all liquid fuel supply system diagrams with equipment isolation valves to be consistent with the revised fuel gas supply system diagrams. See attached diagrams.

Submitter Information Verification

Submitter Full Name: [ Not Specified ]
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Thu Dec 05 13:22:34 EST 2013

Committee Statement

Committee Statement: The liquid fuel system diagrams were revised to reflect the equipment isolation valve to be consistent with changes made to fuel gas supply system diagrams throughout the code.

Response Message:
### Second Revision No. 1-NFPA 85-2013 [ Section No. 3.3.2.4 ]

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<td>Air supplied for combustion in excess of the stoichiometric mixture of air and fuel theoretical air.</td>
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### Submitter Information Verification

- **Submitter Full Name:** [ Not Specified ]
- **Organization:** [ Not Specified ]
- **Street Address:**
- **City:**
- **State:**
- **Zip:**
- **Submittal Date:** Wed Dec 04 11:15:01 EST 2013

### Committee Statement

- **Committee Statement:** The committee reinstated the previous definition of excess air and moved the previous definition of theoretical air to the annex (SR-2). The dictionary definition does not adequately describe the term "stoichiometry" as used in the context of the First Revision.

- **Response Message:**

  Public Comment No. 40-NFPA 85-2013 [Section No. 3.3.2.4]
3.3.26.3 Manual Supervised Burner Management System. A burner management system by which a furnace is purged and a burner is started, ignited, and stopped manually. Interlocks are included to ensure that the operation follows established, proper procedures.

Submitter Information Verification

Submitter Full Name: [Not Specified]
Organization: [Not Specified]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 04 12:30:17 EST 2013

Committee Statement

Committee Statement: The definition is reinstated because the term is now used in the single burner boiler chapter.
Response Message: Public Comment No. 85-NFPA 85-2013 [Section No. 3.3.26]
3.3.43 Direct-Fired System.
A system in which the fuel is pulverized and delivered in suspension directly to the burner(s).

Submitter Information Verification

Submitter Full Name: [ Not Specified ]
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 04 12:42:03 EST 2013

Committee Statement

Committee Statement: "3.3.43 Direct- Fired" should use either a "-" or a space, not both.
Response Message:
Public Comment No. 41-NFPA 85-2013 [Section No. 3.3.43]
3.3.52.4 Induced Draft (ID) Fan.
A fan downstream of the combustion process used to remove the products of combustion from the boiler, HRSG, or flue gas ductwork.

Submitter Information Verification

Submitter Full Name: [ Not Specified ]
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Wed Dec 04 12:42:54 EST 2013

Committee Statement

Committee Statement: The text was missing a space between ",HRSG".
Response Message:
Public Comment No. 20-NFPA 85-2013 [Section No. 3.3.52.4]
Second Revision No. 6-NFPA 85-2013 [ Sections 3.3.76.1, 3.3.76.2, 3.3.76.3, 3.3.76.4, 3.3.76.5, ... ]

Sections
3.3.76.1 – Normal Shutdown, High Steam Pressure Interlock.
A pressure-actuated device that is arranged to effect a normal burner shutdown when the steam pressure exceeds a preset pressure.

3.3.76.2 – Normal Shutdown, High Water Temperature Interlock.
A temperature-actuated device that is arranged to effect a normal burner shutdown when the water temperature exceeds a preset temperature.

3.3.76.3 – Process Monitoring, High Oil Temperature Interlock.
A temperature-actuated device that initiates a signal when oil temperature rises above the limits that are required to maintain the viscosity range recommended by the burner manufacturer.

3.3.76.4 – Process Monitoring, Low Oil Temperature Interlock.
A temperature-actuated device that initiates a signal when the oil temperature falls below the limits that are required to maintain the viscosity range recommended by the burner manufacturer.

3.3.76.5 – Proof of Closure Interlock.
A device that provides feedback that a piece of equipment is in the closed position.

3.3.76.6 – Safety Shutdown, Excessive Steam Pressure Interlock.
A pressure-actuated device that is arranged to effect a safety shutdown of the burner when the steam pressure exceeds a preset pressure.

3.3.76.7 – Safety Shutdown, Excessive Water Temperature Interlock.
A temperature-actuated device that is arranged to effect a safety shutdown of the burner when the water temperature exceeds a preset temperature.

3.3.76.8 – Safety Shutdown, High Gas Pressure Interlock.
A pressure-actuated device that is arranged to effect a safety shutdown or to prevent starting when the gas pressure exceeds the preset value.

3.3.76.9 – Safety Shutdown, Low Gas Pressure Interlock.
A pressure-actuated device that is arranged to effect a safety shutdown or to prevent starting when the gas pressure falls below the preset value.

3.3.76.10 – Safety Shutdown, Low Oil Pressure Interlock.
A pressure-actuated device that is arranged to effect a safety shutdown or to prevent starting when the oil pressure falls below the preset value.

3.3.76.11 – Safety Shutdown, Low Water Cutout Auxiliary Interlock.
On single burner boilers, a device that is arranged to effect a safety shutdown of the burner when the water level in the boiler falls to a predetermined low level.

3.3.76.12 – Safety Shutdown, Low Water Cutout Interlock.
A device that is arranged to effect a safety shutdown or master fuel trip when the water level in the boiler or HRSG falls to a predetermined low level.

Submitter Information Verification
Submitter Full Name: [ Not Specified ]
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Wed Dec 04 13:18:06 EST 2013

Committee Statement
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<td>Public Comment No. 69-NFPA 85-2013 [Section No. 3.3.76]</td>
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Second Revision No. 13-NFPA 85-2013 [ New Section after 3.3.102 ]

3.3.103 Purge Into Service.
To displace air in a fuel gas piping system with inert gas, and then displace the inert gas with fuel gas.

3.3.104 Purge Out of Service.
To displace the fuel gas in a fuel gas piping system by inert gas, and then displace the inert gas with air.

Submitter Information Verification

Submitter Full Name: [ Not Specified ]
Organization: [ Not Specified ]
Street Address: [ Not Specified ]
City:
State:
Zip:
Submittal Date: Thu Dec 05 13:03:59 EST 2013

Committee Statement

Committee Statement: New definitions are added to support requirements added to chapter 4 in SR 14 and SR 15.
3.3.124 Test Block Capability.

The point on the fan head versus flow characteristic curve at which the fan is selected. This is the calculated operating point associated with the maximum continuous rating of the boiler or HRSG, plus the head and flow margins.

A.3.3.124 Test Block Capability. The test block capability of the fan is a theoretical duty that includes some margin beyond the actual volume and pressure requirements.

Submitter Information Verification

Submitter Full Name: [ Not Specified ]
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 04 13:51:58 EST 2013

Committee Statement

Committee Statement: The committee deleted the second sentence of the definition because it addressed only the boilers and HRSGs. The committee created new annex material to clarify the intent of the term in the context of NFPA 85.

Response Message:

Public Comment No. 11-NFPA 85-2013 [Section No. 3.3.124]
When fuel gas is introduced into piping downstream of the equipment isolation valve, the contents shall be displaced in accordance with one of the following:

1. Discharged through a permanently-installed venting system; or
2. Discharged into the boiler or HRSG in accordance with the normal start-up sequence; or
3. Purged into service in accordance with chapter 7 of NFPA 56.

Committee Statement:

New requirements were added to address charging fuel gas piping that is within the scope of NFPA 85, i.e. piping downstream of the equipment isolation valve. Unlike other equipment gas trains, NFPA 85 requires many vent valves that can be utilized for the purpose of safely charging the piping system with fuel gas. In addition, the pipe volume ratio of such piping relative to pipe normally open to atmosphere is small, therefore discharging through the permanently-installed venting system or as part of the normal start-up sequence generally provides an adequate level of safety. Where this piping section presents a significant volume, users may consider using NFPA 56 procedures in lieu of the venting system or start-up procedure.
4.4.2 Purging Fuel Gas Piping Into and Out of Service.

4.4.2.1 Prior to the opening of fuel gas piping systems for maintenance, the piping section shall be isolated from the fuel gas supply and the fuel gas piping system downstream of the equipment isolation valve shall be purged out of service in accordance with chapter 8 of NFPA 56.

4.4.2.2 Following maintenance, fuel gas shall be introduced into piping downstream of the equipment isolation valve in accordance with 4.2.8.

Submitter Information Verification

Submitter Full Name: [ Not Specified ]
Organization: [ Not Specified ]
Street Address:
City:
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Zip:
Submittal Date: Thu Dec 05 13:09:31 EST 2013

Committee Statement

Committee Statement: New requirements were added for removing piping systems from service when maintenance is needed. NFPA 56 is referenced because it provides guidance for industrial piping systems, and specifically power plants as well as the hazards of nitrogen and other inert gases during purge procedures. New requirements were added to address charging fuel gas piping that is within the scope of NFPA 85, i.e. piping downstream of the equipment isolation valve. Unlike other equipment gas trains, NFPA 85 requires many vent valves that can be utilized for the purpose of safely charging the piping system with fuel gas. In addition, the pipe volume ratio of such piping relative to pipe normally open to atmosphere is small, therefore discharging through the permanently-installed venting system or as part of the normal start-up sequence generally provides an adequate level of safety. Where this piping section presents a significant volume, users may consider using NFPA 56 procedures in lieu of the venting system or start-up procedure.

Response Message:
4.5.4
The design shall not require any deliberate defeating of an interlock to start or operate equipment.

Supplemental Information

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<tr>
<th>File Name</th>
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<td>New Annex text for 4.5.4.</td>
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</tbody>
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Submitter Information Verification

Submitter Full Name: [Not Specified]
Organization: [Not Specified]
Street Address: 
City: 
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Submittal Date: Wed Dec 04 15:31:25 EST 2013

Committee Statement

Committee Statement: The committee recognizes that conditioning of interlocks is typically required for normal start-up and operation. The committee created annex text to advise users that such conditioning is not prohibited by the new 4.5.4 requirement.

Response Message:
Public Comment No. 44-NFPA 85-2013 [Section No. 4.5.4]
Where multiple boilers or HRSGs are supplied from the same fuel supply source, there shall be an equipment isolation valve, as a means of manual isolation, provided for each boiler and HRSG.
4.10.3.1 *
The requirements in Section 4.10.3 shall apply to flue gas path auxiliary systems that inject fuel, oxidizer, or combustible reagent into the boiler enclosure or flue gas path when in operation.

A.4.10.3.1
Flue gas path auxiliary systems shall be that inject fuel, oxidizer, or combustible reagent into a boiler enclosure or flue gas path can include but are not limited to, sulfur burner systems, ammonia injection systems, activated carbon injection systems, soot blowing or soot cleaning systems, and fired reheater systems.

Submitter Information Verification

Submitter Full Name: [Not Specified]
Organization: [Not Specified]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Thu Dec 05 08:47:17 EST 2013

Committee Statement

Committee Statement: The mandatory text is revised to be a more general description of flue gas path auxiliary systems and the list of examples is moved to the annex. There could be other systems that should meet the requirements of this section that are not in the "list", that could be construed as the requirements not applying to them. The proposed revised wording and Annex material addresses these concerns.

Response Message:
Public Comment No. 73-NFPA 85-2013 [Section No. 4.10.3.1]
4.11.1.1
The basic requirement of an interlock system for a unit, boiler or combustion system, shall accomplish the following:

(1) Protect personnel from injury
(2) Protect equipment from damage
(3) Protect boiler operation by limiting actions to a prescribed operating sequence or by initiating trip devices when approaching an out-of-range or unstable operating condition

Submitter Information Verification
Submitter Full Name: [ Not Specified ]
Organization: [ Not Specified ]
Street Address: 
City: 
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Zip: 
Submittal Date: Thu Dec 05 08:50:31 EST 2013

Committee Statement
Committee Statement: The term "unit" has a definition that would inappropriately limit the application of this requirement. The term "boiler or HRSG" would not include pulverized fuel systems. The term "boiler or combustion system" should define the intended scope more appropriately. The term "boiler" was removed from the last line for the same reason.

Response Message:
Public Comment No. 8-NFPA 85-2013 [Section No. 4.11.1.1]
4.12.3.5.7
The response time from flame failure to the de-energization of the fuel safety shutoff devices shall not exceed 4 seconds, including any time delay associated with the flame detector.

Submitter Information Verification

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Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Thu Dec 05 09:13:49 EST 2013

Committee Statement

Committee Statement: The text was revised to reflect that not all fuel shutoff devices are de-energized to close. For example Coal Line Shutoff Valves can be "energize to open" and "energize to close." On new installations, some Boiler OEMs are providing dual coil solenoid and motor operated valves for Gas and Oil igniters.

Response Message:
Public Comment No. 18-NFPA 85-2013 [Section No. 4.12.3.5.7]
A.3.3.2.4 Excess Air.
This is not the same as air-rich, as defined in 3.3.5. The theoretical air is the chemically correct quantity of air needed for complete combustion of a given quantity of a specific fuel.

Committee Statement
The committee relocated the existing definition to the annex material because the only location the term is used is in the definition for excess air.