

TO: Recovery Boiler Managers, Superintendents, Supervisors, Steam Chiefs, AF&PA Recovery Boiler Members, and Other Recovery Boiler Professionals

**2022 SPRING AF&PA RECOVERY BOILER  
OPERATIONAL SAFETY SEMINARS  
& REVIEW OF AF&PA - BLRBAC  
GUIDELINES  
ON-LINE VIRTUAL FORMAT**

**Please Mark Your Calendar and Plan for Your Operators, Supervisors, Maintenance Professionals, and Engineers to Attend These Informative On-Line Seminars with Six (6) all New BLRBAC Incident Team Exercises for the 2022 Spring Safety Seminars.**

**April 20, 2022 (7:45 am - 4:30 pm) Eastern Time (UTC/GMT -4 hours)**

**May 18, 2022 (7:15 am - 4:00 pm) Pacific Time (UTC/GMT -7 hours)**

Unfortunately, a Recovery Boiler explosion occurred in North America in 2020. In 2021, there were 38 incidents in the USA and Canada reported to BLRBAC. Of these, 12 incidents were classified as critical. Some of these incidents were considered very serious and it was lucky there were no additional explosions. BLRBAC defines “critical” as meaning water entered the unit forward of isolating baffles, and there was a potential of an explosion. Training and reaction to the situations apparently saved the day in many cases. Learning to recognize the situation before it becomes critical is a big part of the battle. With the increased number of new people or less experienced people working in the Recovery Boiler area, companies are realizing the need for more training. Of the incidents reported last year, 60% were discovered by “walk-downs”, thus finding small problems before turning into large problems.

Although no Dissolving Tank explosions were reported last year, the AF&PA Recovery Boiler Committee feels there have been more upsets in this area that are not reported. Since 2015, 4 Dissolving Tank explosions have been reported to BLRBAC. AF&PA continues to study the Dissolving Tank explosion issue to reduce these upsets and to develop best practices to safely operate Dissolving Tanks.

Much is learned from the reported incidents. The Committee feels that more mills are realizing the need for people operating Recovery Boilers to further their knowledge and understanding of the safe operation of Recovery Boilers. As we see, most pressure part leaks are still found during operator “walk-downs” which supports the conclusion that the operators are more aware of what, where, and how to look for leaks, and to find them as early as possible. The greatest challenge we face in the Recovery Boiler operation is the recognition of major tube leaks followed by the operator’s correct and timely reaction to the emergency. The seminars focus on the proper training and handling of these upset situations to minimize exposure to personnel; reduce injuries; as well as down time and damage. The outstanding dialogue among attendees was again cited as a key factor in responses rating the seminars as “Excellent.” The responses repeatedly mentioned that the **main objective of the Seminars** - the need to **increase awareness in safely operating Recovery Boilers - as most important.**

Thus, with the above factors heard from the mills, there is greater emphasis for these Seminars. The cost for someone attending these Seminars is rather small compared to the possible injuries and costs of an upset in a Recovery Boiler. Based on inquiries already received, we anticipate very good attendance from Operators, Supervisors, Superintendents, Maintenance Professionals, Engineers, Steam Chiefs, and Managers. The Safety Seminars are planned for active participation by each attendee. The Safety Seminars will be in a remote, virtual, on-line format again this Spring. Seminars are offered in both **North American Eastern Time (April 20, 2022)** and **North American Pacific Time (May 18, 2022)** to accommodate multiple time zones. A registration form and agendas for each Seminar are enclosed.

The registration fee for each Recovery Boiler Operational Safety Seminar is **only \$200 per person** for AF&PA Recovery Boiler Program Member Companies (\$400 per person for Non-Member Companies). Please complete the enclosed registration form indicating which Seminar you wish to attend and return it to me along with your registration fee made payable to "AF&PA". The attached form can be completed and returned to me as soon as you know by email or sent by mail to the address indicated on the form. To register by phone, call: Wayne Grilliot at (937) 602-1892.

The Operational Safety Seminars will be conducted on-line using Webex Video and Audio Conferencing. You do not need to subscribe to Webex to join the Safety Seminars. To use Webex, you can either download the Webex software to your computer (Use desktop app) option when prompted in the pop-up after clicking the Webex Link that will be provided or you can choose to use the Browser (Use web app) option which is listed under the (Use desktop app) option in the pop-up. With the Browser (Use web app) option, you do not need to download the Webex software. Please check with your IT Group to make sure the Webex software is allowed on your company computers. If the Webex software is not allowed on your company computers, you will need to use the Browser (Use web app) option. Both options are usually straightforward and normally do not require anything special, but it is best to test it prior to the Seminar. There is no download or connection fee from Webex to participate. A computer with an internet connection and microphone & speaker enabled are required to participate in the Safety Seminars. A computer camera enabled is preferred, but not required. I will be available if you wish to test the Webex connection with your computer & conference room equipment prior to the session, just contact me at wayne\_grilliot@afandpa.org or (937) 602-1892 to set up a time.

The Seminars will start with everyone in one large group (the Main Seminar Session). For the Recovery Boiler BLRBAC Incidents Team Exercises, the participants will automatically be grouped into smaller, pre-assigned Breakout Team Sessions. After the scheduled Breakout Team Session time, all participants will automatically rejoin the Main Seminar Session to report out and discuss their recommendations with the other participants. The transition between sessions should happen seamlessly for the participants. Additional details and Seminar materials will be provided to the registrants prior to the Safety Seminars.

If there are any questions concerning this Recovery Boiler Safety Seminar, please do not hesitate to contact me at: wayne\_grilliot@afandpa.org or (937) 602-1892. Thank you.

**Attachments:**

Registration Form; April 20, 2022 Safety Seminar Agenda; May 18, 2022 Safety Seminar Agenda; and Operating Problems Discussion Suggestion Sheet



**REGISTRATION FORM**

**AF&PA RECOVERY BOILER PROGRAM**  
**2022 SPRING VIRTUAL OPERATIONAL SAFETY SEMINARS &**  
**REVIEW OF AF&PA AND BLRBAC GUIDELINES**

The Safety Seminars are offered in both North American **Eastern Time (April 20, 2022)** & North American **Pacific Time (May 18, 2022)** to accommodate multiple time zones. For multiple participants from a single location, registration fees are based on per participant, not per internet connection.

We plan to have (number of people) \_\_\_\_\_ participate in the 2022 Spring Operational Safety Seminars.

**April 20, 2022 (number of people) \_\_\_\_\_**      **May 18, 2022 (number of people) \_\_\_\_\_**  
**7:45 am – 4:30 pm Eastern Time**      **7:15 am – 4:00 pm Pacific Time**

**Registration fee \$200 (USD) per person for AF&PA Recovery Boiler Program Member Companies.**  
**Registration fee for Non-Member Companies is \$400 (USD) per person.**

**Attendees**

Names: \_\_\_\_\_

Titles: \_\_\_\_\_

Telephones: \_\_\_\_\_

Cell Phones: \_\_\_\_\_

Emails: \_\_\_\_\_

Company: \_\_\_\_\_

Mill: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date: \_\_\_\_\_

Let us know of any special requests: \_\_\_\_\_

**Please return this form and payment by Email or Mail to:**

**AF&PA Recovery Boiler Program**  
**C/O: Program Excellence, LLC**  
**Attn: Wayne Grilliot, Manager**  
**712 Murrell Drive**  
**Kettering, Ohio 45429**

**Email: wayne\_grilliot@afandpa.org**

**To register by phone, call:**  
**Wayne Grilliot (937) 602-1892**

**Please make checks payable to: AF&PA**

**If paying by credit card (please provide the following)**

Type of credit card: \_\_\_\_\_

Credit card number: \_\_\_\_\_

Expiration date: \_\_\_\_\_

Card verification code (CVC): \_\_\_\_\_

Full name on the card: \_\_\_\_\_

Amount to be charged to credit card: \_\_\_\_\_

Name: \_\_\_\_\_

Email: \_\_\_\_\_

Telephone: \_\_\_\_\_

Mobile: \_\_\_\_\_

**AF&PA RECOVERY BOILER PROGRAM**  
**VIRTUAL OPERATIONAL SAFETY SEMINAR &**  
**REVIEW OF AF&PA AND BLRBAC GUIDELINES**

**April 20, 2022**

**7:45 am – 4:30 pm (EDT)**

(UTC/GMT -4 hours)

**On-Line Safety Seminar**

**Eastern Daylight Saving Time**

**AGENDA**

- 7:45 – 8:00 am Sign-in / Verify Computer Connections & Seminar Materials
- Wayne Grilliot – AF&PA Recovery Boiler Program
- 8:00 am Welcome, Opening Remarks, AF&PA Antitrust Policy, Process, Introductions  
Explanation and Outline of Seminar / Review Format by Monitors
- John Andrews
    - BLRBAC ESP Subcommittee Chairman
    - Boiler Services & Inspection, LLC (BSI)
  - Dean Clay
    - BLRBAC ESP Secretary
    - Boiler Services & Inspection, LLC (BSI)
- 8:15 am BLRBAC 2021 Incident Summary Review
- John Andrews
- 8:45 am Interlocks and interlock bypassing – Dean Clay
- Purpose of interlocks
  - Major interlock systems on Recovery Boilers
  - Specific procedures employed when interlocks are not functioning
- 9:00 am Review of ESP Subcommittee Learnings from Reported Incidents
- John Andrews
- 9:35 am Recovery Boiler Incidents 1, 2, & 3 – Team Assignments & Breakout Sessions
- 50 Minutes
- 10:25 am Team reports and Open Discussions of Incidents 1, 2, & 3
- 11:45 am Recovery Boiler Explosion History – Prevention (Part 1)  
Pyrolysis Gas, RB Safety Audits, BLRBAC and AF&PA Resources
- Dean Clay
- 12:00 Noon 30 Minute Break

**AF&PA RECOVERY BOILER PROGRAM**  
**VIRTUAL OPERATIONAL SAFETY SEMINAR &**  
**REVIEW OF AF&PA AND BLRBAC GUIDELINES**

**April 20, 2022**

**7:45 am – 4:30 pm (EDT)**

(UTC/GMT -4 hours)

**On-Line Safety Seminar**

**Eastern Daylight Saving Time**

**AGENDA / (cont.)**

- 12:30 pm Questions from the morning session? / Explanation of afternoon’s activities
- 12:35 pm Recovery Boiler Explosion History – Prevention (Part 2)  
Pyrolysis Gas, RB Safety Audits, BLRBAC and AF&PA Resources
- Dean Clay
- 1:05 pm Analysis of Dissolving Tank Explosions - Prevention
- John Andrews
- 1:35 pm Recovery Boiler Incidents 4, 5, & 6 – Team Assignments & Breakout Sessions
- 45 Minutes
- 2:20 pm Team reports and Open Discussions of Incidents 4, 5, & 6
- 3:30 pm Review of submitted “Operating Problems - Discussion Suggestion Sheets” and any other questions
- 3:45 pm Leak Detection Systems – Dean Clay  
What are the signs of a leak in the control room?
- Indications of a Pressure Part Leak
  - Decision Time
  - Best Practices and use of Decision Charts
- 4:10 pm Opportunities to improve Recovery Operations - Summary and Discussion
- John Andrews
- 4:25 pm Closing remarks
- 4:30 pm Adjourn

**AF&PA RECOVERY BOILER PROGRAM**  
**VIRTUAL OPERATIONAL SAFETY SEMINAR &**  
**REVIEW OF AF&PA AND BLRBAC GUIDELINES**

**May 18, 2022**

**7:15 am – 4:00 pm (PDT)**

(UTC/GMT -7 hours)

**On-Line Safety Seminar**

**Pacific Daylight Saving Time**

**AGENDA**

- 7:15 – 7:30 am Sign-in / Verify Computer Connections & Seminar Materials
- Wayne Grilliot – AF&PA Recovery Boiler Program
- 7:30 am Welcome, Opening Remarks, AF&PA Antitrust Policy, Process, Introductions  
Explanation and Outline of Seminar / Review Format by Monitors
- John Andrews
    - BLRBAC ESP Subcommittee Chairman
    - Boiler Services & Inspection, LLC (BSI)
  - Dean Clay
    - BLRBAC ESP Secretary
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- 7:45 am BLRBAC 2021 Incident Summary Review
- John Andrews
- 8:15 am Interlocks and interlock bypassing – Dean Clay
- Purpose of interlocks
  - Major interlock systems on Recovery Boilers
  - Specific procedures employed when interlocks are not functioning
- 8:30 am Review of ESP Subcommittee Learnings from Reported Incidents
- John Andrews
- 9:05 am Recovery Boiler Incidents 1, 2, & 3 – Team Assignments & Breakout Sessions
- 50 Minutes
- 9:55 am Team reports and Open Discussions of Incidents 1, 2, & 3
- 11:15 am Recovery Boiler Explosion History – Prevention (Part 1)  
Pyrolysis Gas, RB Safety Audits, BLRBAC and AF&PA Resources
- Dean Clay
- 11:30 am 30 Minute Break

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**REVIEW OF AF&PA AND BLRBAC GUIDELINES**

**May 18, 2022**

**7:15 am – 4:00 pm (PDT)**  
(UTC/GMT -7 hours)

**On-Line Safety Seminar**

**Pacific Daylight Saving Time**

**AGENDA / (cont.)**

12:00 Noon	Questions from the morning session? / Explanation of afternoon's activities
12:05 pm	Recovery Boiler Explosion History – Prevention (Part 2) Pyrolysis Gas, RB Safety Audits, BLRBAC and AF&PA Resources <ul style="list-style-type: none"><li>• Dean Clay</li></ul>
12:35 pm	Analysis of Dissolving Tank Explosions - Prevention <ul style="list-style-type: none"><li>• John Andrews</li></ul>
1:05 pm	Recovery Boiler Incidents 4, 5, & 6 – Team Assignments & Breakout Sessions <ul style="list-style-type: none"><li>• 45 Minutes</li></ul>
1:50 pm	Team reports and Open Discussions of Incidents 4, 5, & 6
3:00 pm	Review of submitted “Operating Problems - Discussion Suggestion Sheets” and any other questions
3:15 pm	Leak Detection Systems – Dean Clay What are the signs of a leak in the control room? <ul style="list-style-type: none"><li>• Indications of a Pressure Part Leak</li><li>• Decision Time</li><li>• Best Practices and use of Decision Charts</li></ul>
3:40 pm	Opportunities to improve Recovery Operations - Summary and Discussion <ul style="list-style-type: none"><li>• John Andrews</li></ul>
3:55 pm	Closing remarks
4:00 pm	Adjourn

# OPERATING PROBLEMS

## DISCUSSION SUGGESTION SHEET

Please take a moment to share your thoughts!!!  
Just jot down some things you would like to have discussed!!!

SUCCESSES
CHALLENGES
QUESTIONS
ISSUES

**POSSIBLE TOPICS:** Precipitators, carbon steel, sootblowers, steam outs, instrumentation, ID fan, green liquor, FD fan, burner management, hoppers, superheater, water wash, cyclone evaporator, egress, insurance, spout cooling, qualification, plugging, generating bank, density, lagging, corrosion, combustibles, ESP, blowdown, pumps, capacity, agitators, metal spray, NDE, scaffolding, refractory temperature, agitators, drum level, air heater, emergency, personnel, atomizing steam, nozzles, sarco strainer, safety shut/off valves, smelt, near drum corrosion, double valve and tell-tale, refractory temperature, metal spray, flame detector, studs, fire protection, sprayer plates.

Completed forms may be submitted prior to the seminar. Send to: [wayne\\_grilliot@afandpa.org](mailto:wayne_grilliot@afandpa.org)  
Questions may also be submitted in the Webex chat session any time during the Seminar.

Also, please offer your suggestions on how to improve these Operational Safety Seminars. Thank you.