Combustion Safety Audit 2009

AAA Printing, Inc.
1211 Main Street
Anytown, CT

ETTER Engineering Company, Inc

Combustion Safety Audit Report

Customer:	AAA Printing Inc.	Date:	6/9/2009
Location:	Anytown, Ct	Phone:	860-555-4321
Contact:	Mike Grassetti		
Auditor/s:	Jamie Feagain		

Equipment:	Lacquer Dry Line
Model:	Printmaster 2000
Serial No:	88261835

Type of Operation: ☑ Shut down daily ☐ Continuous over 24 hours ☐ Unknown

Burner Systems[1]: 1

NFPA 86 Standards for Ovens and Furnaces 2007 Edition

Section 1.3.1

This entire standard shall apply to new installations or to alterations or extensions to existing equipment.

Section A.1.3.1

Because this standard is based on the state of the art, application to existing installations is not mandatory. Nevertheless, users are encouraged to adopt those features of this standard that are considered applicable and reasonable for existing installations.

[1] A Burner System is one or more burners operated by a common valve train.

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Customer: AAA Printing Inc.

Auditor: Jamie Feagain Date: 6/9/2009

Equipment: Lacquer Dry Line

Burner Capacity: ☐ <150,000 ☐ <400,000 ☑ >400,000

Flame Detection: ☐ None ☑ Flamerod ☐ UV ☐ Self-Check UV

Pilot: ☐ None ☑ Yes ☐ Self-Piloted

Pilot Type: ☐ Intermittent ☑ Interrupted

Purge Time: 4 Min Confirmed: ☑ Yes ☐ No

Pre-Ignition Purge Compliance: ☑ Yes ☐ No

Required (NFPA 86 2007)	Existing		Pass	Fail
1. Burner	☑ Yes	☐ No	☑	☐
2. Drip Leg	☑ Yes	☐ No	☑	☐
3. Filter/Strainer	☑ Yes	☐ No	☑	☐
4. Low Gas PS	☑ Yes	☐ No	☑	☐
5. High Gas PS	☑ Yes	☐ No	☑	☐
6. Low Air PS	☑ Yes	☐ No	☑	☐
7. Purge Air PS	☑ Yes	☐ No	☑	☐
8. SSOV1	☑ Yes	☐ No	☑	☐
9. VI	☐ Yes	☑ No	☐	☑
10. POC	☐ Yes	☑ No	☐	☑
11. SSOV2	☑ Yes	☐ No	☑	☐
12. VI	☐ Yes	☑ No	☐	☑
13. Test Ready	☐ Yes	☑ No	☐	☑
14. PSSOV1	☑ Yes	☐ No	☑	☐
15. PSSOV2	☐ Yes	☑ No	☑	☐
16. Test Ready	☐ Yes	☑ No	☐	☑
17. High Limit	☑ Yes	☐ No	☑	☐
18. Exhaust PS	☑ Yes	☐ No	☑	☐
19. Circulation PS	☑ Yes	☐ No	☑	☐
20. Low Fire Start	☑ Yes	☐ No	☑	☐
21. Flame Safeguard	☑ Yes	☐ No	☑	☐
22. Other	☐ Yes	☐ No	☐	☐
23. Other	☐ Yes	☐ No	☐	☐
24. Other	☐ Yes	☐ No	☐	☐

NOTE: This Audit is intended to ensure that the critical safety components are present and that these components have been tested for proper operation, no adjustments or repairs were made.

This Safety Audit does not include or cover all of the safety concerns as listed in NFPA 86 2007 Edition. Please refer to the complete Edition.

ETTER Engineering Company, Inc
Failure Report and Recommendation

Auditor: Jamie Feagain	Date: 06-09-09
Component Description: Safety Shutoff Valve #1 Visual Position Indication	
Reason for Failure: No visual position indication. NFPA 86 2007 8.7.1.11 Local visual position indication shall be provided at each safety shutoff valve to burners or pilots in excess of 150,000 Btu/hr (44kW).	
Recommendation: Replace valve.	
Status:	

Auditor: Jamie Feagain	Date: 06-09-09
Component Description: Safety Shutoff Valve #1 P.O.C.	
Reason for Failure: No Proof of Closure or Interlock with upstream safety shutoff valve. NFPA 86 2007 A.8.7.1.2 see figure A.8.7.1.2	
Recommendation: Replace valve.	
Status:	

ETTER Engineering Company, Inc
Failure Report and Recommendation

Auditor: Jamie Feagain	Date: 06-09-09
Component Description: Gas Train Test Ready.	
Reason for Failure: Gas train has insufficient test connections and isolation valves. NFPA 86 2007 8.7.2.3 Means for testing all fuel gas safety shutoff valves for valve seat leakage shall be installed.	
Recommendation: Upgrade gas piping to include test connections and isolation valves.	
Status:	

Auditor: Jamie Feagain	Date: 06-09-09
Component Description: Pilot Safety Shutoff Valve #2	
Reason for Failure: Pilot safety shutoff valve does not exist. NFPA 86 2007 8.7.2.1 Each main and pilot burner system shall be equipped with the following: (1) Two safety shutoff valves piped in series.	
Recommendation: Install two safety shutoff valves on each burner.	
Status:	