

National Association of Boiler and Pressure Vessel Owners and Operators, Inc.

From the President of



Tim Rhodes, President

Greetings fellow NABO Members. The current membership is 446; this includes a wide variety of occupancies from utility companies and petro chemicals to manufacturing and processing. Our primary focus, now as it always has been is to minimize exposure and provide you with information that may assist you in obtaining safe conditions for personnel and the general public.

Limiting exposure can be achieved several ways, two of which are proper maintenance of pressure equipment and routine inspections. In addition to the first two when needed proper repair to pressure equipment is a necessity.

Most Jurisdictions mandate inspections of boilers and pressure vessels prior to the startup of aforementioned equipment and also routine periodic inspections of the same. In addition, they also require specific standards be met for repairs of boilers and pressure vessels and strict compliance to the National Board of Boiler and Pressure Vessel Code.

Maintenance however, is plant specific and has a huge impact not only on the efficiency and operation of pressure equipment but also the exposure to sudden and sometimes extremely violent failure of a boiler or pressure vessel.

We hope to provide you with information that is useful to you, in this newsletter as well as future newsletters to come. We will also attempt to address changes to state laws as well as the codes and standards that directly apply to repair and operation of boilers and pressure vessels; in addition, we will continue to provide information with respect to safely operating and testing pressure equipment.

A handwritten signature in black ink, which appears to read "Tim Rhodes". The signature is written in a cursive style and is located at the bottom right of the page.

Committee Participation

Committee participation is an important part of our service. We currently have two individuals that participate on the committees for the National Board of Boiler Pressure Vessels. These committees develop and approve the standards that are used by all jurisdictions for repairs and alterations of boilers and pressure vessels.

This committee participation allows us direct representation to serve our members with respect to the installation and repairs to pressure equipment of all types and industrial usage.

Mr. Raymond Snyder, having been appointed to the National Board Main Committee and also the Subcommittee for the Installation of Boilers and Pressure Vessels, Subcommittee Boilers is extremely active in representing NABO members.

Mr. Wayne Jones, Chief Inspector for ABIIC, RRG is serving on the Sub Committee Repair/Alterations and Sub Group Vice Chair Repairs/Alterations.

Meetings take place in January and July, the January location is chosen by the membership and the second meeting occurs in Columbus, Ohio at National Board Headquarters.

The January 2011 National Board meeting took place in Austin, Texas.

With the July 2011 publication of the National Board Inspection Code numerous revisions and clarifications were adopted and among these changes one item may create additional cost; S2.13.14.4 Handhole doors, studs, nuts, yokes, and clamps, which are worn, cracked or otherwise damaged, shall be replaced and not repaired.

Significant Boiler & Pressure Vessel Law Changes

Minnesota:

The State of Minnesota revised its boiler and pressure vessel law to exempt air tanks in electric utility substations that are integral to the air arc circuit breakers from statutory inspection. The State has also exempted bulk industrial gas storage tanks (which are typically leased by purchasers of industrial gases, but are owned by the gas producers/retailers), if the company that owns the tanks has a bulk storage tank inspection program in place that is acceptable to the Insurer. ARISE continues to have open dialog with the State in regards to the exemption of bulk industrial gas storage tanks, due to the absence of an Owner/User inspection provision in the Minnesota Law. Under the provisions of an Owner/User Inspection Program, the Owner/User of pressure vessels is allowed to inspect their own equipment, with the proviso that the inspectors performing the inspections must possess an active National Board Commission with the Inservice inspection (IS) endorsement and State Commission. The absence of this provision in the Minnesota Law creates a deficiency in the inspection process, in that; there is no assurance that the level of inspection performed by personnel conducting the inspections is equivalent to those performed by National Board and State Commissioned Inspectors. It also creates a significant liability for both the Owner

and Insurer, in the event of a failure, since there is no objective method in place to ensure that the individuals inspecting the tanks are qualified to do so.

Overview of Changes to Minnesota Boiler Statues HF2855 - to 326B

326-B.958- This section was revised to combine the inspection requirements previously located in 326.B.952, 326B.062 and 326B.982, which are repealed.

a. Subdivision 1. "Newly installed boilers" must be inspected by a department inspector; inspection fees association with this intital inspection shall be the responsibility of the installer.

b. Subdivision 2. All boiler inspectors must now attach a sticker or label to the vessel with the date of inspection and the name of the insurance company performing the inspection. This eliminates the needs to leave a copy of the inpection report if the vessel does not have code violations.

326B.988- Clarified the department examine and license people for the operation of only steam turbines as opposed to any other turbine.

326B.99- Redued time for insurance companies to perform an inspection from 120 days to 60 days. This change was made because there will be a reduction in the number of objects to be inspected so less time is needed to complete the inspections.

Changes, Continued-

Maryland;

The State of Maryland enacted legislation to change their Boiler and Pressure Vessel Law. Major changes included:

- Privatization of inspection of uninsured boilers and pressure vessels that were previously inspected by the State (i.e. Recognized Authorized Inspection Agencies, such as ARISE, are now allowed to perform operating certificate renewal inspections for uninsured boilers),
- Addition of a provision that Insurance Companies who fail to complete operating certificate renewal inspections, within sixty (60) days of the expiration of the operating certificate, are subject to a fine of \$5,000 per delinquent inspection (per object),

The primary reasons that these changes were enacted was because some Insurance Companies were not meeting their inspection obligations and because the State was not able to meet its obligation to inspect newly installed objects in a timely fashion, due to the limited number of Deputy Inspectors employed by the State and the large number of uninsured, regulated boilers and pressure vessels in the State. Ensuring that all regulated boilers and pressure vessels in the State has become a top priority of not only the Boiler Inspection Bureau, but also the Commissioner of Labor and the Governor, who receive monthly reports on the status of overdue inspections.

Air Tank Explosion in California

Improper maintenance and lack of inspection to blame

Measurement taken on the air tank after the explosion were as follows:

- Left head-----.141 & .134
- Right head-----.153 & .145
- Left shell-----.158 & .189
- Right shell-----.190 & .145

Measurements taken directly underneath the air tank @ 6 o'clock:

- .126, .097, .094, .132, .100 & .086

Nameplate data indicated that the tank was built to; shell .154 & head .134

Internal inspection of the air tank revealed heavy rust build-up and active corrosion. All air tanks at this facility were allowed to accumulate excessive water between drainage.



Right view of air tank

***“Internal inspection of the air tank revealed heavy rust build-up and active corrosion.*”**

Why maintaining a safe distance from pressurized components is important during testing procedures



Although there's no information on why the fracture occurred, since it is a longitudinal crack, it is suspected that it was a crack in a weld that may have been initiated when the manufacturer bent the elbow.

This is an excellent example of the importance of maintaining a safe distance from pressurized components, even during hydrostatic testing. It is easy to be lulled into a feeling of safety during the witnessing of a pressure test.

Personnel should be cautioned to never begin

close visual examination, even during hydrostatic testing, until the test pressure has been held for at least ten minutes and temperature of the testing fluid is between 60 and 120 degrees Fahrenheit. This failure apparently occurred well before the pressure of the test reached full hydrostatic test pressure and the injuries that occurred could likely have been prevented if all personnel had maintained a safe distance.

Thanks to Jim Pridmore for providing the information in this article.

Report of Violation Findings for First Quarter of 2011

The National Board of Boiler and Pressure Vessel Inspectors has released the Violation Findings First Quarter Report for 2011. The report is based on 66 reports from 37 jurisdictions and covers 161,208 inspections revealing 16,487 violations (10% violation rate).

Boiler Controls is the category with the highest number of violations, reporting 5,283. Boiler Piping and Other Systems is second with 4,352 violations.

The Violation Findings Report identifies the

number and type of boiler and pressure vessel inspection violations found among participating member jurisdictions. It also indicates problem areas and trends related to boiler and pressure vessel operation, installation, maintenance, and repair. Additionally, it identifies problems prior to adverse conditions occurring. This report serves as an important source of documentation for jurisdictional officials, providing statistical data to support continued funding of inspection programs.

For questions regarding this newsletter, State Jurisdictional or National Board representation issues please contact me through tim.rhodes@ariseinc.com Items in this newsletter are not intended to be your sole knowledge of all the requirements of operation and testing, but only to supplement your current program or knowledge.