



APPROVED BY AY

DATE 11/29/17

START ACTION NOTICE #2017-13

1. TYPE OF ACTION:

Revise the current *Regulations for Boilers, Pressure Vessels, and Nuclear Administrative Code 1353* (the Regulations) to reflect changes necessary to protect public safety by reducing the risk of an incident that would result in loss of life or property. These actions will require owners of regulated boilers to conduct monthly and annual inspections of their boiler systems to reduce the likelihood of explosions, equipment failures, and carbon monoxide incidents from occurring. The annual inspection of the boiler system will be performed by a licensed Heating and Air Conditioning Ventilation (HVAC) technician. The changes also add additional equipment testing requirements for pressure vessels associated with air cannons. This Start Action Notice combines and updates actions previously described in SAN #2016-11 and SAN # 2017-4.

2. PURPOSE OF ACTION:

Actions to prevent explosions, equipment failures, and carbon monoxide incidents:

Boiler inspections for low pressure boilers are required once every two years. During the two year period corrosion, lack of proper ventilation, and improper maintenance of the boiler can result in situations that threaten public safety. The proposed monthly inspection is a visual check that there aren't any obvious problems with the boiler. The monthly check can be done by the owner or their facility maintenance staff. The annual preventive maintenance performed by an HVAC technician is a tune-up of the boiler system. This may cost \$250-\$1300 per year to complete depending on the size and type of the boiler. Performing annual preventive maintenance increases the efficiency of the boiler, saves on fuel costs, results in longer lasting equipment, and reduces the risk of equipment failures.

Actions to address Pressure Vessels Used as Air Cannons

Compressed air tanks that are used with air cannons fall under the definition of a pressure vessel. DNREC is proposing additional equipment testing to ensure the mechanical integrity of the pressure vessels used as air cannons can withstand the maximum allowable working pressure assigned to the pressure vessel when it was originally manufactured. DNREC is requiring owners to measure the wall thickness of the pressure vessel, perform liquid penetrant testing when cracks are detected in welds or the surface of the pressure vessel, and perform hydrostatic testing to ensure the vessel won't explode due to equipment failure.

During April, May and June 2017 DNREC reviewed the current rules associated with pressure vessels used as air cannons with owners and the Council on Boiler Safety. The cost of performing this additional equipment testing ranges from \$200 to \$1200 every two years, depending on the level of effort that is needed. If cracks or surface defects are detected, repair work may be required to keep the pressure vessel in service.

3. STATUTORY BASIS:

7 Del.C. Chapter 74B, The Boiler Safety Program

4. IS THIS PROPOSED REGULATORY ACTION REQUIRED AS A RESULT OF FEDERAL STATUTE OR REGULATION? IF SO, PROVIDE LINK TO FEDERAL MANDATE.

No

5. DATE OF MOST RECENT REVIEW/AMENDMENT:

Most recently amended on January 11, 2013

6. LIKELY AFFECTED PUBLIC:

Owners and operators of pressure vessels used as air cannons and organizations that sponsor competitions involving air cannons will be affected. Other affected members of the public include owners of boilers that will have to perform monthly inspections of their boiler systems, and hire licensed HVAC technicians to perform annual preventive maintenance on the system.

7. PROPOSED SCHEDULE OF ACTIVITIES:

Share the draft changes to the regulations with stakeholders.	Completed
Conduct Public Workshops	Completed
Incorporate changes based on workshop comments	Completed
Publish Proposed Regulations	December 2017
Conduct Public Hearing	January 2018
Publish Final Regulations	April 2018

8. REVIEW COMMITTEE:

The Council on Boiler Safety as well as other stakeholders such as owners of air cannons, organizations that sponsor air cannon competitions, and owners of regulated boilers and water heaters.

9 RESPONSIBLE STAFF MEMBER:
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10. APPROVALS

 _____	11/6/17	 _____	11.7.17
Alex Rittberg	Date	Marjorie Crofts	Date
Responsible Staff Member		Director, Division of Waste & Hazardous Substances	

(Rev. November 2017)

EAR2017-027

