APA-1
07/04

TRANSMITTAL SHEET FOR NOTICE OF INTENDED ACTION

Control No._____ Department or Agency: Dept. of Labor
Rule No. 490-x-6
Rule Title: Requirements
_____New __X__ Amend _____ Repeal _____ Adopt by Reference

Would the absence of the proposed rule significantly harm or endanger the public health, welfare, or safety?	NO
Is there a reasonable relationship between the state's police power and the protection of the public health, safety, or welfare?	NO
Is there another, less restrictive method of regulation available that could adequately protect the public?	NO
Does the proposed rule have the effect of directly or indirectly increasing the costs of any goods or services involved and, if so, to what degree?	NO
Is the increase in cost, if any, more harmful to the public than the harm that might result from the absence of the proposed rule?	NO
Are all facets of the rulemaking process designed solely for the purpose of, and so they have, as their primary effect, the protection of the public?	YES

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Does the proposed rule have an economic impact?	NO

If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of Section 41-22-23, Code of Alabama 1975.

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Certification of Authorized Official

I certify that the attached proposed rule has been proposed in full compliance with the requirements of Chapter 22, Title 41, Code of Alabama 1975, and that it conforms to all applicable filing requirements of the Administrative Procedure Division of the Legislative Reference Service.

Signature of certifying officer Stephen McCook

Date 9-19-12

(DATE FILED)
(STAMP)

APA-2
07/04

Department of Labor

NOTICE OF INTENDED ACTION

AGENCY NAME: DEPARTMENT OF LABOR

RULE NO. & TITLE: 490-x-6 Requirements

INTENDED ACTION: To amend the Requirements section under Boiler and Pressure Vessels to reflect a new rule number.

SUBSTANCE OF PROPOSED ACTION: The adoption is necessary to correctly reference the rule after the merger of the Department of Industrial Relations and The Department of Labor.

TIME, PLACE, MANNER OF PRESENTING VIEWS: All interested persons may submit data, views, or arguments in writing to Stephen McCormick, Department of Labor, 649 Monroe Street, Montgomery, Alabama 36131 by mail or in person between the hours of 8:00 am and 4:30 pm, Monday through Friday until and including November 05, 2012. Persons wishing to submit data, views or arguments orally should contact Stephen McCormick by telephone at (334) 242-8274 during this period to arrange an appointment.

FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE: November 05, 2012

CONTACT PERSON AT AGENCY:

Stephen McCormick
Department of Labor
649 Monroe Street
Montgomery, AL 36131
Telephone: (334) 242-8274

Stephen McCormick
Director, Governmental Affairs

ALABAMA DEPARTMENT OF LABOR
ADMINISTRATIVE CODE

CHAPTER ~~490-X-6~~ 480-7-6 REQUIREMENTS

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~~490-X-6-.01~~ 480-7-6-.01 General Requirements

~~490-X-6-.01~~ 480-7-6-.01 General Requirements.

(1) **Automatic Low-Water Fuel Cutoff and/or Water Feeding Device**

(a) Each automatically fired steam or vapor system boiler shall be equipped with an automatic low-water fuel cutoff so located as to automatically cut off the fuel supply when the surface of the water falls to the lowest safe waterline. If a water-feeding device is installed, it shall be so constructed that the water inlet valve cannot feed water into the boiler through the float chamber and so located as to supply requisite feedwater. The lowest safe waterline should not be lower than the lowest visible part of the water glass.

(b) Such fuel or feedwater control devices may be attached directly to a boiler or for low pressure boilers, to the tapped openings provided for attaching a water glass directly to a boiler, provided that such connections from the boiler are nonferrous tees or Ys not less than 1/2 in. pipe size between the boiler and the water glass, so that the water glass is attached directly and as close as possible to the boiler; the straightway tapping of the Y or tee to take the water glass fittings, the side outlet of the Y or tee to take the fuel cutoff or water-feeding device. The ends of all nipples shall be reamed to full size diameter.

(c) Designs embodying a float and float bowl shall have a vertical straightaway valve drain pipe at the lowest point in the water equalizing pipe connections by which the bowl and the equalizing pipe can be flushed and the device tested.

(2) **Pressure Reducing Valves**

(a) Where pressure reducing valves are used, one or more safety or safety relief valves shall be provided on the low-pressure side of the reducing valve when the piping or equipment on the low-pressure side does not meet the requirements for the full initial pressure. The safety or safety relief valves shall be located adjoining or as close as possible to the reducing valve. Proper protection shall be provided to prevent injury or damage caused by the escaping fluid from the discharge of safety or safety relief valves if vented to the atmosphere. The combined discharge capacity of the safety or safety relief valves shall be such that the pressure rating of the lower pressure piping or equipment shall not be exceeded in case the reducing valve fails in the open position.

(b) The use of hand-controlled bypasses around reducing valves is permissible. If a bypass is used around the reduction valve, the safety valve required on the low- pressure side shall be of sufficient capacity to relieve all the fluid that can pass through the bypass without over-pressuring the low-pressure side.

(c) A pressure gage shall be installed on the low-pressure side of a reducing valve.

(3) **Boiler Blowoff Equipment**

(a) The blowdown from a boiler or boilers that enters a sanitary sewer system or blowdown that is considered a hazard to life or property shall pass through some form of blowoff equipment that will reduce pressure and temperature as required hereinafter.

(b) The temperature of the water leaving the blowoff equipment shall not exceed 140°F.

(c) The pressure of the blowdown leaving any type of blowoff equipment shall not exceed 5 psig.

(d) All blowoff equipment shall be fitted with openings to facilitate cleaning and inspection.

(e) Blowoff equipment shall conform to the provisions set forth in the recommended rules for National Board Boiler Blowoff Equipment.

(4) **Location of Discharge Piping Outlets.** The discharge of safety valves, blowoff pipes, and other outlets shall be located and supported as to prevent injury to personnel.

(5) **Supports.** Each boiler and pressure vessel shall be supported by masonry or structural supports of sufficient strength and rigidity to safely support the boiler or pressure vessel and its contents. There shall be no excessive vibration in either the boiler, pressure vessel, or its connecting piping.

(6) **Boiler Door Latches**

(a) A watertube boiler shall have the firing doors of the inward opening type, unless such doors are provided with substantial and effective latching or fastening devices or otherwise so constructed as to prevent them, when closed, from being blown open by pressure on the furnace side.

(b) These latches or fastenings shall be of the positive self-locking type. Friction contacts, latches, or bolts actuated by springs shall not be used. The foregoing requirements for latches or fastenings shall not apply to coal openings of downdraft or similar furnaces.

(c) All other doors, except explosion doors, not used in the firing of the boiler may be provided with bolts or fastenings in lieu of self-locking latching devices.

(d) Explosion doors, if used and if located in the setting walls within 7 ft. of the firing floor or operating platform, shall be provided with substantial deflectors to divert the blast.

(7) **Clearance**

(a) All boilers and pressure vessels shall be so located that adequate space will be provided for the proper operation of the boilers and pressure vessels and their appurtenances, for the inspection of all surfaces, tubes, waterwalls, economizers, piping, valves, and other equipment, and for their necessary maintenance and repair and replacement of tubes.

(b) When boilers are replaced or new boilers are installed in either existing or new buildings, a recommended minimum height of 3 ft. should be provided between the top of the boiler proper and the ceiling and between all sides of the boiler and adjacent walls or other structures. Boilers and pressure vessels

having manholes should have a recommended 5 ft. clearance from the manhole opening and any wall, ceiling, or piping that will prevent a person from entering the boiler or vessel.

(8) **Ladders and Runways.** When necessary for safety, there shall be a steel runway or platform of standard construction installed across the tops of adjacent boilers or pressure vessels or at some other convenient level for the purpose of affording safe access. All walkways shall have at least two means of exit, each to be remotely located from the other.

(9) **Exit from Boiler Room.** All boiler rooms exceeding a 500 square foot floor area and containing one or more boilers having a fuel-burning capacity of 1 million BTU or equivalent electrical heat input shall have at least two means of exit. Each exit shall be remotely located from the other. Each elevation in such boiler room shall have two means of exit, each remotely located from the other.

(10) **Suggestions for Operation.** It is suggested that the Recommended Rules for Care of Power Boilers, Section VII, and the Recommended Rules for Care and Operation of Heating Boilers, Section VI, of the ASME Code be used as a guide for proper and safe operating practices.

(11) **Air and Ventilation Requirements - Combustion Air Supply and Ventilation of Boiler Room**

(a) A permanent source of outside air shall be provided for each boiler room to permit satisfactory combustion of the fuel as well as proper ventilation of the boiler room under normal operating conditions.

1. The total requirements of the burners for all fired pressure vessels in the boiler room must be used to determine the net louvered area in square feet:

INPUT BTU/HOUR	**REQUIRED AIR MIN. CU/FT/MIN**	**NET LOUVERED AREA, SQ. FT**
500,000	125	1.0
1,000,000	250	1.0
2,000,000	500	1.6

3,000,000 750 2.5

4,000,000 1,000 3.3

5,000,000 1,250 4.1

6,000,000 1,500 5.0

7,000,000 1,750 5.8

8,000,000 2,000 6.6

9,000,000 2,250 7.5

10,000,000 2,500 8.3

(BTU/10,000) X 2.5= CFM - 300 CFM per sq. ft. of net req. area

2. When mechanical ventilation is in lieu of paragraph 1, the supply of combustion and ventilation air to the boiler room and the firing device will not operate with the fan off. The velocity of the air through the ventilating fan shall not exceed 500 feet per minute, and the total air delivered shall be equal to or greater than shown in paragraph 1 above.

(b) It is recommended that each boiler room be equipped with an operating carbon monoxide sensor.

Author: Board of Boilers & Pressure Vessels, Dr. David Dyer, Chairman

Statutory Authority: Code of Ala. 1975, §§25-12-4, -6, -14.

History: New Rule: Filed February 20, 2004; effective March 23, 2004.