

Clearinghouse Rule 11-047

**PROPOSED ORDER OF THE
DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES
CREATING RULES**

The Wisconsin Department of Safety and Professional Services proposes an order to repeal SPS 341.02 (1) (b) 1. Note; 341.04 (11), (19) and (30) and Note; 341.08 (2); 341.16 (2) (f) and (g) and Note; 341.36 (2) (title); 341.44 Note; 341.55 (3) (a) (title) and (b) and 341.56 (1) (title) and (2);

to renumber SPS 341.04 (12), (14) to (18), (20), (22), (26) to (28), (32), (35) to (38) and (40); 341.07 (2); 341.16 (1) (a); 341.17 (5) and 341.33 (1) (intro.), (b) and (3);

to renumber and amend SPS 341.04 (1), (13), (21), (23) to (25), (29), (31), (33), (34) and (39); 341.08 (1); 341.15 (3); 341.16 (1) (e); 341.28 (3) (b) Notes; 341.33 (intro.), (1) (title) and (a) and (3); 341.36 (2); 341.41 (2) (c); 341.42 (3); 341.53; 341.55 (1), (3) (a) and (4); 341.56 (1) and 341.62 (1) and Note and (2) (a);

to amend SPS 341.01; 341.02 (1) (a) and (b) 1.; 341.04 (intro.), (6), (7) and (10); 341.05 and Note; 341.06; 341.15 (1) (intro.) and (a); 341.16 (title), (1) (b) and (c), (2) (a), (d) and (e) and (3) (title) and (a); 341.17 (1) (title) and (a) and (4); 341.18 (1) (b) and (o); 341.19 (1); 341.23 (3) (a); 341.24 (1) (a) 2. and (2); SPS 341.27; 341.28 (3); 341.29 (1) and (2) (a); 341.30 (1) (a) and (c) and (2); 341.31 (1) (b), (2) and (4) (intro.) to (d); 341.32 (2); 341.37 (3) Note; 341.40; 341.41 (1) (a) and (b) (intro.) and 1., (2) (a) and (4) (b); 341.42 (1) and (2) (a); 341.44; 341.45 (1) (a) to (d) and (3) (b); 341.46 (1) and (2); 341.47 (intro.) and (1) to (3); 341.48 and Note; 341.49 (3) (a) and (c); 341.54 (1) and Note; 341.55 (2) and (3) Note; 341.56 Note; 341.57; 341.60; 341.62 (title) and (2) (a); 341.63 (1) Note, (2) and (3); 341.64 (1) (a), (3) (intro.) and (4) (a); 341.70; 341.73; 341.75 (1), (2) and Note; 341.90; 341.91 (title) and (1) and 341.92 (title), (1) (c) Note and (2) (a);

to repeal and recreate SPS 341.03, 341.10; 341.23 (1) and (2) (a), 341.38 (1) and 341 Appendix;

and to create SPS 341.02 (1) (b) 3. and Note and (2) Note; 341.04 (1) and (2) Note, (4), (12), (23) and (38); 341.07 (1); 41.08 Note; 341.09; 341.11; 341.15 (1) Note, (4) and (5); 341.16 (1) (a) 2., 3. and (3) Note; 341.17 (5) and (7); 341.29 (2) (b) 2. e.; 341.42 (1) Notes [1] and [3], (3) (b) and (4); 341.53 (2) and Note; 341.55 (1) (a) (title) and (b) and (4) (b) and Notes; 341.62 (1) (b) and (2) (a) 2.; 341.93 and 45.31 (2) (d) relating to boilers and pressure vessels, and affecting small business.

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Rule Summary

1. Statutes Interpreted

Sections 101.02 (1) and (15) (h) to (j), and 101.17

2. Statutory Authority

Sections 101.02 (1) and (15) (h) to (j), 101.17, and 227.11 (2) (a).

3. Explanation of Agency Authority

Under sections 101.02 (1) and (15) (h) to (j) of the Statutes, the Department is required to establish rules and prescribe safeguards for protecting the life, health, safety and welfare of employees and frequenters of public buildings and places of employment. Under section 101.17 of the Statutes, installation and use of machines, mechanical devices and steam boilers must comply with the rules of the Department. The Department also has authority under section 227.11 (2) (a) of the Statutes to promulgate rules interpreting any statute that is enforced or administered by the Department, if the rule is considered necessary to effectuate the purpose of the statute.

4. Related Statute or Rule

Most of the boilers and pressure vessels that are addressed by the proposed rule changes are within public buildings and places of employment, which are addressed by the Wisconsin Commercial Building Code, which consists of chapters SPS 61 to 66. Some of the pressure vessels that are addressed by the proposed rule changes are in mechanical refrigeration systems, which are addressed in chapter SPS 45.

5. Plain Language Analysis

Chapter SPS 341 contains Wisconsin's minimum safety standards for design, construction, installation, operation, inspection, testing, maintenance, repair and alteration of boilers, pressure vessels, power piping and solid-fuel-fired water-heating appliances that are installed for public buildings, places of employment, and one- or two-family dwellings.

The proposed changes would primarily update this chapter to have it include newer editions of several referenced national model codes and standards from the American Society of Mechanical Engineers (ASME) and the National Board of Boiler and Pressure Vessel Inspectors – such as the *ASME Boiler and Pressure Vessel Code*. In conjunction with this update, the Appendix is changed to include reproductions of selected portions of the newer editions, for the convenience of the reader. The changes also include newly adopting two additional, closely related industry-consensus safety standards: ASME CSD-1, for controls and safety devices for automatically fired boilers having fuel-input ratings from greater than 400,000 to less than 12,500,000 Btu per hour; and NFPA[®] 55, for compressed gases and cryogenic fluids. Consent to adopting the referenced standards will be obtained from the Attorney General prior to incorporating the standards into the rules.

The changes would also repeal any text that is either no longer used, redundant or not substantive, and would discontinue applying ASME nuclear power plant requirements that differ from the requirements applied by the federal Nuclear Regulatory Commission. The changes would also clarify and refine some of the administrative elements of the chapter, such as how authorized agents and insurance companies can participate in enforcing the chapter; and would

improve several typographic elements, such as correcting various punctuation errors. Overall, the changes would essentially make this chapter consistent with current, nationwide industry standards and practices for boilers and pressure vessels.

6. Summary of, and Comparison With, Existing or Proposed Federal Regulations

The federal Nuclear Regulatory Commission has regulations for construction, operation, inspection and licensing of nuclear power plants in Parts 50.55a to 50.57 of Title 10 of the *Code of Federal Regulations* (CFR). An Internet-based search indicated that the current edition of these regulations is dated January 1, 2011, and this edition applies various requirements developed by ASME for the boilers and pressure vessels in these facilities.

An Internet-based search revealed that on March 10 to 12, 2011, the Advisory Committee on Reactor Safeguards held its 581st meeting and agreed to proposed final revisions for the next edition of 10 CFR 50.55a.

7. Comparison With Rules in Adjacent States

An Internet-based search found that the four adjacent states adopt by reference the following editions and addenda of the *ASME Boiler and Pressure Vessel Code* and related standards. These states also create amendments to the adopted standards, as are created in Wisconsin's administrative rules for boilers and pressure vessels.

a. The Illinois Office of the State Fire Marshal, Division of Boiler and Pressure Vessel Safety regulates the construction, installation, operation, inspection and repair of boilers and pressure vessels throughout the state of Illinois. The Illinois boiler and pressure vessel safety rules are similar to the requirements in the Wisconsin Boiler and Pressure Vessel Code, including the Illinois incorporation by reference of the *ASME Boiler and Pressure Vessel Code* (2007 edition), ASME CSD-1 (2004 edition) and the *National Board Inspection Code* (2007 edition).

b. The Iowa Department of Workforce Development, Division of Labor Services administers and enforces the Boilers and Unfired Pressure Vessels Chapter of the Iowa Code. That chapter requires new installations of boilers and pressure vessels to be designed, manufactured, installed, inspected and stamped in accordance with the applicable requirements of the *ASME Boiler and Pressure Vessel Code* (2007 edition with 2008a and 2009b addenda); ASME CSD-1 (2009 edition); ASME B31.1 *Power Piping* (2007 edition); and the *National Board Inspection Code* (2007 edition with 2008, 2009 and 2010 addenda).

c. The Michigan Department of Licensing and Regulatory Affairs, Boiler Division administers the Michigan Boiler Rules. The rules are similar to the Wisconsin rules and establish minimum standards of safety for the construction, installation, inspection, use, alteration and repair of boilers, with limited rules for specified pressure vessels. The rules adopt the *ASME Boiler and Pressure Vessel Code* (2007 edition and 2008a addenda), ASME B31.1 *Power Piping* (2007 edition), and the *National Board Inspection Code* (2007 edition).

d. The Minnesota Department of Labor and Industry, Division of Construction Codes and Licensing administers rules that address the manufacture, installation, repair, operation, safety and inspection of boilers, pressure vessels and appurtenances. The rules also contain provisions

for licensing of boiler operators, and include minimal requirements for hobby boilers (steam traction engines). The rules are similar to the Wisconsin rules and incorporate the most recent editions and addenda of the *ASME Boiler and Pressure Vessel Code* and the *National Board Inspection Code*.

8. Summary of Factual Data and Analytical Methodologies

The methodology for this update of chapter SPS 341 consisted primarily of reviewing and assessing the latest editions of the national model codes and standards that serve as the basis for the chapter. In reviewing these latest editions, Department staff concluded that these codes and standards are clearer and provide more detail than the current requirements and standards in SPS 341, and would not impose significant additional costs or other impacts on a substantial number of businesses. The Department's Boiler and Pressure Vessel Code Advisory Council then agreed with these conclusions. The members of that Council represent the many stakeholders involved in the boiler and pressure vessel industry including manufacturers, inspectors, building contractors, regulators, labor, insurance and the public. The following organizations are represented on the Council:

American Insurance Association
Boiler and Pressure Vessel Repairers Association
City of Milwaukee
HSB Global Standards
Plumbing, Mechanical and Sheet Metal Contractors Alliance
Wisconsin Boiler Inspector's Association
Wisconsin Historical Steam Engine Association
Wisconsin Manufacturers & Commerce
Wisconsin Pipe Trades Association
Wisconsin Utilities Association

The Department believes the referenced national model codes and standards reflect contemporary societal values with respect to protecting public health, safety and welfare in the design, construction, use, operation and maintenance of boilers and pressure vessels in commercial and public buildings and places of employment. For example, the *ASME Boiler and Pressure Vessel Code* is kept current by the ASME Boiler and Pressure Committee, which was established 100 years ago in response to boiler accidents that were causing upwards of 50,000 deaths annually. The Committee now consists of more than 950 engineers, and meets regularly to consider requests for interpretations and revisions and to develop new rules. In the formulation of its rules and in the establishment of maximum design and operating pressures, the Committee considers ongoing advances in materials, construction, methods of fabrication, inspection, certification and overpressure protection. The *ASME Boiler and Pressure Vessel Code* is now adopted in part or in its entirety by all 50 states and numerous municipalities and territories of the United States, and by all the provinces of Canada. More than 92,000 copies of the *Code* are in use in over 100 countries, and this use is supported by ASME, which now includes more than 120,000 members in over 150 countries worldwide.

Wisconsin first adopted rules that were consistent with the *ASME Boiler and Pressure Vessel Code* in 1915, and has routinely adopted the latest edition of this code by reference since 1956. Keeping Wisconsin's requirements consistent with this industry standard avoids having

manufacturers, suppliers, inspectors and insurers of the regulated equipment face a regulatory environment here that differs from their practices elsewhere.

9. Analysis and Supporting Documents Used to Determine Effect on Small Business or in Preparation of Economic Impact Report

The Department used its Boiler and Pressure Vessel Code Advisory Council to gather and analyze information on potential impacts in complying with both the technical and administrative requirements of the proposed rules. A responsibility of council members is to bring forth any concerns that their respective organizations may have with the current and proposed requirements, and any concerns for potential economic impacts.

In addition to posting rule-development and council activities on its Web site, the Department offers an e-mail subscription service, which is available to all small businesses. This service provides e-mail notification of council meetings, meeting agendas and Council-meeting progress reports so small businesses can follow proposed code changes.

Consideration of the potential effects on small business was based on guidelines produced by the federal Small Business Administration's Office of Advocacy.

10. Effect on Small Business.

The proposed changes are not expected to impose significant additional costs or other impacts on a substantial number of businesses because the primary effect of the changes is to make chapter SPS 341 consistent with current, nationwide industry standards and practices for boilers and pressure vessels.

11. Agency Contact Information

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