Ohio | Common Sense Initiative

Mike DeWine, Governor
Jon Husted, Lt. Governor

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Business Impact Analysis

Agency, Board, or Commission Name: Board of Building Standards

Rule Contact Name and Contact Information:

Regina Hanshaw 614-644-2613

Regulation/Package Title (a general description of the rules' substantive content):

Amendments Group 99 – Ohio Mechanical Code Amendments

Rule Number(s): 4101:2-5-01, 4101:2-9-01, 4101:2-11-01, and 4101:2-15-01

Date of Submission for CSI Review: 11/15/19

Public Comment Period End Date: 12/13/19

Rule Type/Number of Rules:

New/___ rules

No Change/____ rules (FYR? ___)

Amended/__4__ rules (FYR? _N__)

Rescinded/____ rules (FYR? ___)

The Common Sense Initiative is established in R.C. 107.61 to eliminate excessive and duplicative rules and regulations that stand in the way of job creation. Under the Common Sense Initiative, agencies must balance the critical objectives of regulations that have an adverse impact on business with the costs of compliance by the regulated parties. Agencies should promote transparency, responsiveness, predictability, and flexibility while developing

regulations that are fair and easy to follow. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

Reason for Submission

1. **R.C. 106.03 and 106.031 require agencies, when reviewing a rule, to determine whether the rule has an adverse impact on businesses as defined by R.C. 107.52. If the agency determines that it does, it must complete a business impact analysis and submit the rule for CSI review.**

   Which adverse impact(s) to businesses has the agency determined the rule(s) create?

   The rule(s):

   a. ☒ **Requires a license, permit, or any other prior authorization to engage in or operate a line of business.**

   b. ☐ **Imposes a criminal penalty, a civil penalty, or another sanction, or creates a cause of action for failure to comply with its terms.**

   c. ☐ **Requires specific expenditures or the report of information as a condition of compliance.**

   d. ☐ **Is likely to directly reduce the revenue or increase the expenses of the lines of business to which it will apply or applies.**

Regulatory Intent

2. **Please briefly describe the draft regulation in plain language.**
   Please include the key provisions of the regulation as well as any proposed amendments.

   The Ohio Board of Building Standards (Board) proposes to amend Ohio Administrative Code (OAC) Rules as follows:

   4101:2-5-01 to add a new exception in Section 507.2.6 which allows for less than an 18-inch hood clearance to combustibles if the hood is listed and labeled for such clearance and to incorporate ICC errata.

   4101:2-9-01 to clarify language in Section 908.3, to increase cooling tower distance from building inlets, and to mention ASHRAE Guideline 12 which was proposed to address Legionellosis associated with building water systems (BBS Petition 19-02). Petition 19-02 is attached as Exhibit A.

   4101:2-11-01 to reorganize Section 1107.2 addressing refrigerant piping location prohibitions and corrects terminology to clarify intent and to incorporate ICC errata.

   4101:2-15-01 to delete the IECC as a referenced standard because it is not referenced in the OMC; to update the IFGC to the 2018 edition and to update the IFGC referenced standard ANSI LC1/CSA 6.26 to the 2018 edition; to adopt the NFPA 70 TIA 17-8 which eliminates a conflict between NFPA

99 and NFPA 70 with regard to wiring protection for emergency systems in health care occupancies where persons are not capable of self-preservation; and to incorporate ICC errata.

A detailed summary of the proposed amendments is attached as Exhibit B.

3. **Please list the Ohio statute(s) that authorize the agency, board or commission to adopt the rule(s) and the statute(s) that amplify that authority.**

   Revised Code § 3781.10: http://codes.ohio.gov/orc/3781.10
   Revised Code § 4104.43: http://codes.ohio.gov/orc/4104.43v1

4. **Does the regulation implement a federal requirement? Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program?**
   If yes, please briefly explain the source and substance of the federal requirement.

   No.

5. **If the regulation includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.**

   NA

6. **What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?**

   Revised Code § 3781.10 directs the Board to "formulate and adopt rules governing the erection, construction, repair, alteration and maintenance of all buildings specified in section 3781.06 of the Revised Code…" It further requires that the Board's rules also "relate to the conservation of energy and the safety and sanitation of those buildings."

7. **How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?**

   The enforcement of these rules will be implemented by certified township, city, and county building departments. Rule 4101:1-1-01 lays out the administrative procedures certified building departments must follow to implement the substantive requirements of these rules to determine compliance. These provisions require a builder or owner to make application to a building department to obtain an approval to build (permit). As part of this application the owner must submit sufficient information and/or construction documents for the building official/plans examiner to determine whether the proposed work complies with the code. After the builder or owner obtains the approval (permit), construction may commence, and the building department inspectors will inspect the construction to ensure that the work conforms with the original approval. Rule 4101:1-1-01 § 105.2 provides that in the absence of fraud or a serious safety or sanitation hazard, any non-residential structure built in accordance with approved plans shall be conclusively presumed to comply with these rules. The Board requires that certified nonresidential building departments submit an annual yearly operational

report which lists the following information: current employees and their certifications, total number of permits issued during the year for each type of occupancy, total number of inspections made, the total value of construction, and the total number of appeals of the code requested by a builder or owner during the year.

8. **Are any of the proposed rules contained in this rule package being submitted pursuant to R.C. 101.352, 101.353, 106.032, 121.93, or 121.931?**
   If yes, please specify the rule number(s), the specific R.C. section requiring this submission, and a detailed explanation.
   No.

Development of the Regulation

9. **Please list the stakeholders included by the Agency in the development or initial review of the draft regulation.**
   If applicable, please include the date and medium by which the stakeholders were initially contacted.

   The Board maintains a stakeholder distribution list including building department personnel, contractors, designers and professional associations. The stakeholder list is available upon request. On May 23, 2019, the Board sent an email to all agency stakeholders informing them of a scheduled stakeholder meeting on June 17, 2019 to hear comments and respond to questions on these rules. The notice summarized the proposed amendments and also informed stakeholders that if they could not attend the stakeholder meeting, they could submit questions or comments via email or regular mail by June 17, 2019. On June 17, 2019 the Board conducted a stakeholder meeting on the proposed rules between 10:00 AM and 11:30 AM and the following individuals attended: Amit Ghosh, City of Columbus; Bill Prenosil, OFCC; Gary Eodice, Heapy Engineering; Nathan Alwood, ACCCO; and David Mann, American Technology Council

10. **What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?**

    Typos were noted by Staff for correction in OMC Section 1107.2. Corrections have been incorporated into the draft rule.

11. **What scientific data was used to develop the rule or the measurable outcomes of the rule? How does this data support the regulation being proposed?**

    Continuing law is based on the 2015 International Mechanical Code (IMC) promulgated and amended by the International Code Council (ICC). The model codes developed by ICC are updated every three years through a process that incorporates petitioning, public hearings and voting by ICC members. The ICC Committees that oversaw the development of the different provisions in the 2015 IMC included building and fire code officials, architects, engineers, contractors, and representatives from

the National Association of Home Builders, the National Fire Protection Association, Underwriters Laboratories, and other professional organizations.

When a petition to amend the model code is submitted, the proponent of the change must submit the proposed language of the amendment, the reason for the amendment including scientific data when applicable, and the cost impact of the amendment. All submitted petitions are then published prior to initial code development hearings on the petitions. Interested persons may review the proposed changes and attend the code development hearing and provide comments. A report then is published on the public hearings for review and then final action is taken on the proposed changes at final action hearings. All successful changes are incorporated into the next edition of the model code.

Upon publication the Board's code committee reviews each substantive change included in the newest edition of the code and determines whether to recommend the change to the Board for adoption. The Board last fully updated the Ohio Mechanical Code on November 1, 2017.

12. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives?

See response to Question 11.

13. Did the Agency specifically consider a performance-based regulation? Please explain. ***Performance-based regulations define the required outcome, but don't dictate the process the regulated stakeholders must use to achieve compliance.***

Continuing law permits a registered design professional's alternative engineered design to be a compliance alternative method to the prescriptive requirements of the code. Section 106.5 of the OBC permits a registered design professional to submit sufficient technical data to substantiate that performance of the proposed alternative engineered design meets the intent of the code. Additionally, Section 107.4.3 provides that when construction documents have been prepared by an Ohio registered design professional conforming to the requirements of the rules of the Board pertaining to design loads, stresses, strength, and stability and other requirements involving technical analysis, the documents need only be examined to the extent necessary to determine conformity with other requirements of the rules of the Board.

14. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?

Editorial changes are routinely made to the rules to provide consistency with the Ohio Revised Code and other Board and agencies' rules. Additionally, RC § 3781.10 gives the Board sole authority to adopt rules which regulate the erection, construction, repair, alteration, and maintenance of all buildings or classes of buildings specified RC 3781.06 including residential and non-residential buildings.

15. Please describe the Agency's plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.

For these rules to be enforced by a local government, its building department must be certified by the Board. The Board also certifies the personnel who work within these departments to ensure only qualified personnel are enforcing the Board's rules. Certified personnel must complete continuing education to maintain their certifications and continue to be authorized to enforce these rules. The Board has authority to suspend or revoke certifications for failure to properly enforce the rules. Also, the Board has a staff member dedicated to responding to complaints by persons affected by the Board rules. This program helps promote consistent and predictable application of the Board rules.

Adverse Impact to Business

16. Provide a summary of the estimated cost of compliance with the rule. Specifically, please do the following:

a. Identify the scope of the impacted business community; and

- Building owners
- Design Professionals
- Contractors
- Building Department Personnel

b. Identify the nature of all adverse impact (e.g., fees, fines, employer time for compliance,); and

- Obtaining updated rules as published as the Ohio Mechanical Code
- Becoming familiar with the changes through research and training
- Increase construction costs associated with compliance with Petition 19-02

c. Quantify the expected adverse impact from the regulation.
The adverse impact can be quantified in terms of dollars, hours to comply, or other factors; and may be estimated for the entire regulated population or for a "representative business." Please include the source for your information/estimated impact.

After adoption of amendments to the building codes, publishers issue replacement pages for code users to update code books. If a code user has purchased a code book from a publisher and wish would keep it updated, the cost of replacement page packet is approximately $25. However, the Board provides free view access to electronic versions of Ohio's building codes which are regularly updated through a contract with International Code Council: https://codes.iccsafe.org/category/Ohio?year[]=Current+Adoption&page=1

Construction costs may increase to comply with proposed language from Petition 19-20 to place cooling towers such to prevent discharge plumes from entering occupied spaces or outdoor public areas and require that plume discharges shall not be less that 25 feet aware from a ventilation inlet. This requirement limits design flexibility in site layout and may increase cost due to additional materials and labor.

17. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?

The amendments included in this package incorporate ICC Errata for the 2015 IMC, select sections from the 2018 IMC, unique Ohio text that responds to a petition to change the code, and editorial fixes. The amendments are intended to correct mistakes, answer questions, and clarify existing code requirements. The clarifications help in the application and enforcement of the code. Consistent application and enforcement of the code can result in cost savings.

The proposed changes in response to Petition 19-20 are intended to reduce the risk of legionella outbreaks associated with cooling towers.

Regulatory Flexibility

18. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.

The rules do not have special exemptions or alternative means of compliance specifically for small business. The OBC requires a building official to issue an adjudication order to an owner when the design or construction of a building does not comply with the OBC. The adjudication order must comply with Revised Code Chapter 119 and give the owner an opportunity to appeal. This mechanism is often utilized by an owner voluntarily to obtain a variance from the requirements. Variance requests are heard by either the Ohio Board of Building Appeals or a certified local board of building appeals.

Also, the OBC permits alternative engineered designs prepared by a registered design professional to not strictly comply with the prescriptive requirements of the rules. To obtain approvals based on alternative engineered designs, the design professional must submit sufficient technical information to demonstrate that the performance meets the intent of the rules.

19. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?

Revised Code § 3781.102 does not authorize the Board to set the fees and/or penalties assessed by local certified building departments in connection with the enforcement of these rules. Compliance

with the rules is accomplished through construction conforming to the certificate of plan approval (permit). Therefore, there are no potential paperwork violations of these rules.

20. What resources are available to assist small businesses with compliance of the regulation?

The Board's technical staff spends approximately 25% of their time responding to questions on the building codes and educating design professionals, contractors, the public, and code officials of the intent of the Board's rules assisting all parties in compliance.

Exhibit A

APPLICATION

FOR

RULE CHANGE

Pursuant to section 3781.12 of the Revised Code and rules adopted by the Board of Building Standards, application is herewith submitted to adopt, amend, or annul a rule adopted by the Board pursuant to section 3718.10 of the Revised Code.

BOARD OF BUILDING STANDARDS
6606 Tussing Road, P.O. Box 4009
Reynoldsburg, Ohio 43068-9009
(614) 644-2613
bbs@ohio.gov
www.com.state.oh.us/dico/bbs/default.aspx

For BBS use:	
Petition #:	19-02
Date Recv'd:	April 25, 2019

Submitter: Carl Schultz (Contact Name) N/A (Organization/Company)

Address: 303 W. Hull Dr. (Include Room Number, Suite, etc.)

Delaware (City) Ohio (State) 43015 (Zip)

Telephone Number: (614) 745-4642 **Fax Number:** N/A

Date: April 25, 2019 **E-mail Address:** carlschultz8@gmail.com

Code Section: Ohio Mechanical Code Section 908 Cooling Towers, Evaporative Coolers and Fluid Coolers, 908.3 Location

General Explanation of Proposed Change (attach additional sheets if necessary):

A reoccurrence of outbreaks of Legionnaire's Disease over the past 43 years points to the need to update the Ohio Mechanical Code Section 908 Cooling Towers, Evaporative Coolers and Fluid Coolers. These changes would include language to bring the discharge vapor plumes to the level of hazardous exhaust systems from Chapter 5 Exhaust Systems.

Explanation of Cost Impact of Proposed Code Change*:

Minimal cost impact as the code change deals with location of proposed equipment and not level of quality or cost of the equipment.

***Attach additional cost information as necessary to justify any statement of cost increase or cost decrease.**

Information on Submittal (attach additional sheets if necessary):	
1. Sponsor:	N/A Organization sponsoring or requesting the rule change (if any)
2. Rule Title:	Ohio Mechanical Code Section 908 Cooling Towers, Evaporative Coolers and Fluid Coolers, 908.3 Location Title of rule change
3. Purpose/ Objective:	There have been nearly two dozen Legionella outbreaks associated with cooling towers starting with the Legionnaire's convention in 1976 in Philadelphia. Nearly 40 years later the outbreaks in the Bronx led to state and local regulations for registering and testing of cooling towers and other wet devices capable of aerosolizing water. In between these two events, in 2002, there was an outbreak in a town in England, Barrow-in-Furness, that killed 7 people. In this incident, there were 180 confirmed cases of Legionnaire's disease and the smoking gun was actually a cooling tower located in an elevated parking deck, which was adjacent to an alleyway between shops and bus stops. In this case both the Borough Council and their Design Services Manager were convicted of offenses under the Health and Safety Act of 1974. In addition to the deaths in these outbreaks there have been hundreds and perhaps thousands who have been become ill from being in close proximity to cooling towers. More recently and closer to home, a church in Parma, Ohio installed a cooling tower that resulted in 10 confirmed cases of Legionnaire's disease with one death. The cooling tower and water-cooled chiller were subsequently replaced with an air-cooled chiller. The original project was part of an energy improvement project. See attachment for listing of Legionnaire's Disease outbreaks attributed to cooling towers. Technical justification for the proposed rule change
4. Formatted Rule Language **(Using Strike-out for Deleted Text and Underline for Added Text)**	**908.3 Location.** Cooling towers, evaporative condensers, and fluid coolers shall be located to ~~prevent the~~ discharge vapor plumes <u>outdoors at a point where it will not cause a public nuisance and to prevent their re-introduction to</u> ~~from entering~~ occupied spaces. Plume discharges shall not be less than <u>15</u> feet (~~1524~~ <u>4572</u> mm) above or ~~20~~ <u>50</u> feet (~~6096~~ <u>15240</u> mm) away from any ventilation inlet to a building <u>including operable windows</u>. Location on the property shall be as required for buildings in accordance with the *building code*, <u>and the discharge shall be not less than 30 feet (9144 mm) from property lines. If located within an urban environment or other populated area with complex building geometries, the building official shall have the authority to require a wind assessment/dispersion analysis be conducted to ensure the safety of occupants in the public way and in adjacent buildings.</u> Use strike-out for deleted text and underline for added text
5. Notes:	1. To encourage uniformity among states using model codes, it is recommended that the submitter first submit any code change directly to ICC and participate in the national model code development process. 2. Please provide a copy of application and documentation. 3. Use a separate form for each code change proposal.

Legionella Outbreaks Attributed to Cooling Towers				
Year	**Facility**	**Location**	**Cases**	**Deaths**
2018	St. Columbkille Parish	Parma, OH	10	1
2018	Lower Washington Heights	Manhattan, NY	27	1
2017	Disneyland	Anaheim, CA	22	2
2017	Flushing	Queens, NY	15	0
2017	Sao Francisco Xavier Hospital	Lisbon, Portugal	56	6
2016	Town Hall, CBD	Sydney, Australia	4	0
2015	Opera Hotel	South Bronx, NY	127	12
2015	Co-Op City	Bronx, NY	12	0
2015	Eastview Middle School	Bartlett, IL	1	0
2015	Morris Park	Bronx, NY	15	1
2014	Vila Franca de Xira District	Portugal	375	12
2012	Unknown	Aukland, New Zealand	11	1
2012	South West area	Edinburgh, Scotland	92	4
2012	Lower Quebec City	Quebec City, Canada	180	13
2010	South Wales Valleys	Wales, UK	22	2
2008	Community General Hospital	Syracuse, NY	13	1
2005	Seven Oaks Home for Aged	Toronto, Canada	127	21
2005	Sound Shore Medical Center	New Rochelle, NY	9	0
2002	Forum 28 Arts Center	Barrow-in-Furness, UK	180	7
2001	Hospital	Murica, Spain	800	6
2000	Melbourne Aquarium	Melbourne, Australia	125	4
1985	Stafford District Hospital	Stafford, England	175	28
1976	Legionnaire's Convention	Philadelphia, PA	221	34

These events point to a need to update the Mechanical Code to ensure that the installation of cooling towers, evaporative condensers, and fluid coolers do not present unnecessary risks to the public health.

Exhibit B

November 2019 – E-Notification Phase
AMENDMENTS GROUP 99 - OHIO MECHANICAL CODE PROPOSED CHANGES

Ohio Administrative Code Rule Number	Paragraph/Section	Source of Proposed Change	Reason for Proposed Change
4101:2-5-01	507.2.6	2018 IMC	Adds a new exception to allow for less than 18-inch hood clearance to combustibles if hood is listed and labeled for such clearance
	513.5	ICC Errata	Provides a code reference and deletes unnecessary second sentence regarding smoke barriers
4101:2-9-01	908.3	Petition 19-02	*Modifies the siting distances of cooling towers and provides a note to remind design professionals of the concern for Legionellosis
4101:2-11-01	1107.2	2018 IMC	Reorganizes the section addressing refrigerant piping location prohibitions and corrects terminology to clarify intent
	1109.1	ICC Errata	Deletes the erroneously placed word “pure”
4101:2-15-01	ICC	BBS	*Deletes the IECC standard because it is not referenced in the OMC
		2018 IMC	Updates the IFGC standard from the 2015 edition to the 2018 edition
		BBS	*Updates the IFGC referenced standard ANSI LC1/CSA 6.26 from the 2013 edition to the 2018 edition to recognize Arc-Resistant CSST
	IIAR	ICC Errata	Corrects the title of the standard 2
	NFPA	BBS	Adopts the NFPA 70 TIA 17-8 which eliminates a conflict between NFPA 99 and NFPA 70 with regard to wiring protection

			for emergency systems in health care occupancies where persons are not capable of self-preservation
	NSF	ICC Errata	Adds standard 14

*Denotes a change from the Stakeholder phase