

# CSI - Ohio

## The Common Sense Initiative

### Business Impact Analysis

Agency Name: Ohio Board of Building Standards

Regulation/Package Title: Ohio Mechanical Code Amendments

Rule Number(s): 4101:2-4-01, 4101:2-5-01, 4101:2-6-01

Date: March 9, 2018

**Rule Type:**

☐ New

☒ Amended

☐ 5-Year Review

☐ Rescinded

The Common Sense Initiative was established by Executive Order 2011-01K and placed within the Office of the Lieutenant Governor. Under the CSI Initiative, agencies should balance the critical objectives of all regulations with the costs of compliance by the regulated parties. Agencies should promote transparency, consistency, predictability, and flexibility in regulatory activities. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

#### **Regulatory Intent**

1. Please briefly describe the draft regulation in plain language.

*Please include the key provisions of the regulation as well as any proposed amendments.*

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

**4101:2-4-01** to incorporate ICC Errata.

**4101:2-5-01** to incorporate ICC Errata and include model code language that was inadvertently omitted.

**4101:2-6-01** to incorporate ICC Errata and add language regarding damper access door requirements as a result of approved Petition 17-01.

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

**2. Please list the Ohio statute authorizing the Agency to adopt this regulation.**

Revised Code § 3781.10: <http://codes.ohio.gov/orc/3781.10>

Revised Code § 3781.11: <http://codes.ohio.gov/orc/3781.11>

**3. 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.

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

Not applicable.

**5. 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...” Additionally, Revised Code 3781.06 provides:

*Any building that may be used as a place of resort, assembly, education, entertainment, lodging, dwelling, trade, manufacture, repair, storage, traffic, or occupancy by the public, any residential building, and all other buildings or parts and appurtenances of those buildings erected within this state, shall be so constructed, erected, equipped, and maintained that they shall be safe and sanitary for their intended use and occupancy.*

This statute defines safe and sanitary as follows:

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*“Safe,” with respect to a building, means it is free from danger or hazard to the life, safety, health, or welfare of persons occupying or frequenting it, or of the public and from danger of settlement, movement, disintegration, or collapse, whether such danger arises from the methods or materials of its construction or from equipment installed therein, for the purpose of lighting, heating, the transmission or utilization of electric current, or from its location or otherwise.*

*“Sanitary,” with respect to a building, means it is free from danger or hazard to the health of persons occupying or frequenting it or to that of the public, if such danger arises from the method or materials of its construction or from any equipment installed therein, for the purpose of lighting, heating, ventilating, or plumbing.*

The Ohio Building Code sets forth the construction standards for nonresidential buildings in the State of Ohio to ensure that they are safe and sanitary. Additionally, Revised Code § 3781.01 provides that local governments may not adopt regulations that conflict with the Board’s rules to facilitate the uniform application of the standards.

Revised Code 3781.11 lists conditions that rules of the Board must address, including:

- (1) For nonresidential buildings, provide uniform minimum standards and requirements, and for residential buildings, provide standards and requirements that are uniform throughout the state, for construction and construction materials, including construction of industrialized units, to make residential and nonresidential buildings safe and sanitary as defined in section 3781.06 of the Revised Code;
- (2) Formulate such standards and requirements, so far as may be practicable, in terms of performance objectives, so as to make adequate performance for the use intended the test of acceptability;
- (3) Permit, to the fullest extent feasible, the use of materials and technical methods, devices, and improvements, including the use of industrialized units which tend to reduce the cost of construction and erection without affecting minimum requirements for the health, safety, and security of the occupants or users of buildings or industrialized units and without preferential treatment of types or classes of materials or products or methods of construction;
- (4) Encourage, so far as may be practicable, the standardization of construction practices, methods, equipment, material, and techniques, including methods employed to produce industrialized units;

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**6. 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.

**Development of the Regulation**

**7. 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 including building department personnel, contractors, designers and professional associations. The stakeholder list is available upon request. On December 5, 2017, the Board sent an email to all agency stakeholders informing them of a scheduled stakeholder meeting on January 5, 2018 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 January 12, 2018. On January 5, 2018, the Board conducted a stakeholder meeting on the proposed rules between 10:00 AM and 12:00 PM and the following individuals attended: Derek Spurling, MVBOC, Rick Helsinger, OBOA, Mike Spry, City of Cincinnati, Jene Gaver, City of Springfield, James Smith, American

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Wood Council, Michael Boso, City of Grove City, Jason Baughman, Mid East Ohio Building Department, Scott Young, MVBOC, and Don Phillips, City of Worthington.

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

No comments were submitted for these proposed rules during the stakeholder input process, however, included in the rule package are changes as a result of approved Petition # 17-01 submitted by Joseph Sandman requesting amendment to Section 607.4 for damper access door. A copy of Petition 17-01 is attached Exhibit B.

**9. 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 is 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 2015 IMC included building and fire code officials, architects, engineers, contractors, and representatives from the National Association of Home Builders, 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.

- 10. 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 9.

- 11. 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 Ohio Building Code 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.

- 12. 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.

- 13. 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.

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### **Adverse Impact to Business**

**14. 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;**

Minimal impact. The amendments included in this package primarily incorporate ICC Errata for the 2015 IMC. There may be an increase in material cost to comply with the new requirement for damper door access as a result of approved Petition 17-01.

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

See above.

**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.*

See above.

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

See Petition 17-01 attached as Exhibit B for justification.

### **Regulatory Flexibility**

**16. 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 Ohio Building Code (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

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sufficient technical information to demonstrate that the performance meets the intent of the rules.

**17. 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 residential 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.

**18. 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.



**E-NOTIFICATION**

**AMENDMENTS GROUP 95 - OHIO MECHANICAL CODE PROPOSED CHANGES**

<b>Ohio Administrative Code Rule Number</b>	<b>Paragraph/Section</b>	<b>Reason for Proposed Change</b>
4101:2-4-01	403.3.2.1, Eqn 4-9	ICC Errata corrects equation constant
	404.3	ICC Errata corrects reference
	Table 403.3.1.1	ICC Errata adds values in the Occupant Density column for the Occupancy Classification of Hotels, motels, resorts and dormitories
4101:2-5-01	502.4, Exception	ICC Errata modifies the exception to include lithium metal polymer batteries
	502.8.1.1 #2	Editorial fix to correct symbol
	502.9.5, Exception #12	Editorial fix to correct symbol
	502.9.5.1	Editorial fix to correct symbol
	502.12	Editorial fix to correct symbol
	503.3	Adds ICC text that was inadvertently omitted when originally filed
	513.6.2	ICC Errata changes equation number to 5-1
	513.10.1	ICC Errata changes equation number to 5-2
	513.11.1	ICC Errata deletes last sentence
4101:2-6-01	607.1.1	ICC Errata modifies the title
	607.4	Petition 17-01 prescribes damper access door requirements
	607.5.2	ICC Errata corrects code reference
	607.5.5, Exception #2	Deletes ICC exception #2 as a result of broader new Ohio Exception #6 for smoke dampers

## BOARD OF BUILDING STANDARDS

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[www.com.state.oh.us/dico/bbs/default.aspx](http://www.com.state.oh.us/dico/bbs/default.aspx)

# 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.

For BBS use:

Petition #: 17-01

Date Recv'd: 8/16/17

**Submitter:** Joseph P. Sandman

(Contact Name)

(Organization/Company)

**Address:** 1976 Ford Road

(Include Room Number, Suite, etc.)

Morrow

(City)

Ohio

(State)

45152

(Zip)

**Telephone Number:** (513) 899-9743

**Fax Number:**

**Date:** 08/09/2017

**E-mail Address:** josephs@fioptics.com

**Code Section:** 607.4 Access and Identification (Ohio Mechanical Code)

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

Saving lives and countless dollars in property damage by providing a realistic approach to the maintenance and inspection of smaller fire dampers.

**Explanation of Cost Impact of Proposed Code Change\*:** My proposed change will reduce the time it takes  
to inspect and service smaller fire dampers by 50%

**\*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:	<div>Organization sponsoring or requesting the rule change (if any)</div>
2. Rule Title:	<div>Access and Identification</div> <div>Title of rule change</div>
3. Purpose/ Objective:	<div>By providing a removable section of ductwork this will allow adequate access for inspection and maintenance of the fire damper and it's operating parts.</div> <div>Technical justification for the proposed rule change</div>
4. Formatted Rule Language  (Using Strike-out for Deleted Text and Underline for Added Text) (OMC)	<p><b>607.4 Access and identification.</b> Fire and smoke dampers shall be provided with an approved means of access, <del>large enough</del> to permit inspection and maintenance of the damper and it's operating parts. <u>Dampers equipped with fusible links, internal operators, or both shall be provided with an access door that is not less than 12 in. (305mm) square or provided with a removable duct section.</u> The access openings shall not reduce the fire-resistance-rated assemblies. The access openings shall not reduce the fire-resistance rating of the assembly. Access points shall be permanently identified on the exterior label having letters not less than .05 inch (12.7 mm) in height reading: FIRE/SMOKE DAMPER, SMOKE DAMPER or FIRE DAMPER. Access doors in ducts shall be tight fitting and suitable for the required duct construction.</p> <div>Use strike-out for deleted text and underline for added text</div>
5. Notes:	<ol style="list-style-type: none"> <li>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.</li> <li>2. Please provide a copy of application and documentation.</li> <li>3. Use a separate form for each code change proposal.</li> </ol>

Date: July 27, 2017

Ohio Board Of Building Standards  
6606 Tussing Road  
Reynoldsburg Ohio 43068

ATTN: BOARD MEMBERS

I would like to bring to your attention a recurring problem we have in the HVAC industry with the intention that there is something your organization can help us fix or refer this letter to a department that can help rectify this problem.

Fire and smoke dampers are an important part of a HVAC ductwork system, in the event of a fire they are designed to close and prevent the spread of fire and smoke throughout the buildings ductwork system, giving the building occupants enough time to evacuate and also providing the fire department sufficient time to enter the building and extinguish the fire safely.

The NFPA requires all fire and smoke dampers be periodically inspected, maintained and tested per their guidelines to assure these dampers function properly in the event of a fire.

The NFPA requires that fire and smoke dampers are inspected and maintained through an access door that provides full unobstructed access to these dampers. These access doors are mounted on the ductwork as close as possible to the damper it serves. Access doors work well for large fire and smoke dampers because the ductwork size is large enough to except an adequate sized access door, the problem is with the smaller fire and smoke dampers, the ductwork size is too small to mount an adequate size access door to. NFPA 80 addresses this problem by mandating the minimum size access door shall be no smaller than 12 inch square or you must supply a removable ductwork section, this removable section provides the maintenance technician with the unobstructed room needed to properly inspect and maintain the smaller fire and smoke dampers.

Our concerns are with the smaller fire and smoke dampers, because in many cases the removable ductwork sections for these dampers are not being provided as mandated by the NFPA 80, rather inadequate small access doors are being installed in the ductwork system next to the fire and smoke damper it serves, these smaller access doors don't provide the sufficient room needed to properly inspect and maintain the smaller fire and smoke dampers. The inadequacies of these access doors is nothing new in the HVAC industry, in many cases when it becomes time for the periodic damper inspections the maintenance technician will ignore and pass over the smaller fire and smoke dampers knowing that it's virtually impossible to perform the inspection through the small access doors. We are asking for your help in addressing this problem, these fire and smoke dampers are much to important to be ignored, they save lives and countless dollars in property damage, the solutions are known they are just not being implemented.

Thank you for your time and if I can be of any assistance please don't hesitate to contact me.

Sincerely,

**Joseph P. Sandman**  
1976 Ford Road  
Morrow, Ohio 45152  
Home (513) 899-9743  
Mobile (513) 678-6825

August 1, 2017

I have been testing fire and smoke dampers to assure their operation is at the same standard as when they were installed. Today round and rectangular dampers 4" to 12" are extremely difficult to test due to the fact that the access openings are limited in size. In order to test a fire damper the mechanic must remove the fire damper link and watch the damper close then clean out the tracks of the damper blade for corrosion build up over the years, install the blade back to the original position and secure the fire link.

I would estimate it takes 45 minutes to check a small damper, if a removable ductwork section was in front of the fire damper I believe it would reduce this time by 50%. The installation of a removable ductwork section in front of an existing small fire damper most likely would not be feasible due to other mechanical devices directly beneath it, however it could be implemented in new construction and save considerable time in testing and the removal of a damper that is not working properly.

**Matt Haarmeyer**

  
DEBRA - KUETMPEL  
MATT HAARMAYER