**ACTION:** Original

## CSI - Ohio The Common Sense Initiative

### **Business Impact Analysis**

Agency Name: Ohio I	Board of Building Standar	ds	
Regulation/Package Title:	Ohio Plumbing Code An	nendm	ents
Rule Number(s):	4101:3-2-01, 4101:3-3-0	0 <b>1, 410</b> 1	1:3-4-01, 4101:3-6-01,
<u>4101:3-9-01, 4101:3-13-01</u>			
Date: August 3, 2015			
Rule Type:			
$\square New$			5-Year Review
X Amended			Rescinded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.* 

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

**4101:3-2-01** to add definitions for above-ground storage tank, building service equipment, containment backflow prevention device, engine-mounted device, fuel tank, isolation and backflow prevention device, to modify definitions for combination waste and vent system, listed and plumbing fixture and to delete definitions for third party certification agency, third party certified and third part tested;

**4101:3-3-01** to clarify that materials should include markings required by the referenced standards, to change 'third party' to 'approved agency' and clarifying language, to delete third party requirements in Table 303.4, to clarify that insulation is required for each hot water pipe when bundled, to reference § 1612 of the building code for flood resistance, to clarify plastic pipe testing procedure, to clarify plastic pipe testing procedure, to clarify isolation backflow prevention device inspection and testing procedure as a result of coordination with OEPA, to add operational testing of low pressure cut-off device, low suction throttling valves, and variable speed suction limiting controls as a result of coordination with OEPA and to make general editorial corrections;

**4101:3-4-01** to add specific plumbing fixture requirements for casinos and to add a service sink exemption for business and mercantile occupancies with occupant load fewer than 15 in Table 403.1, to allow family or assisted-use toilet facilities to serve as separate facilities, to clarify toilet room location, to clarify drinking fountain fixture locations, to remove Figure 405.3.1, to modify the minimum number of drinking fountains required and exceptions, to remove reference to commercial food waste grinders, to modify the language requiring tempered water for public hand-washing facilities, to add standard for liquid-type, trowel-applied, load-bearing, bonded waterproof materials, to add requirements for water closet personal hygiene devices and to make general editorial corrections;

**4101:3-6-01** to modify reference standards, add pipe as well as tubing, and add polyethylene of raised temperature (PE-RT) plastic tubing in Table 605.3, to add polyethylene of raised temperature (PE-RT) plastic tubing and reference standard in Table 605.4, to modify reference standards and to add polyethylene of raised temperature (PE-RT) plastic tubing and reference of raised temperature plastic requirements, to add PE-RT flared joints and mechanical joints requirements, to add variable speed suction limiting controls to booster pump requirements and to clarify jurisdiction as a result of coordination with OEPA, to add temperature limiting means to hot water supply system requirements, to specify installation of temperature-actuated mixing valves and to make general editorial corrections;

**4101:3-9-01** to clarify the length of a combination drain and vent system shall be unlimited and to add § 920 Single Stack Vent System;

**4101:3-13-01** to add ASME standards A112.4.2-2008, ASTM standards F2735-09 and F2769-09, WWA standards C901-08 and C904-08, CSA standards B45.10, B45.15, B125.1, B125.2, B125.6,

B356-05, and B483.1-07, to update ASME standards A112.18.1, A112.18.2, A112.18.3, A112.18.6, A112.19.1, A112.19.2, A112.19.3, A112.19.5, A112.19.7, CSA standards B45.1, B45.2, B45.4, and to remove ASME standards A112.19.6, A112.19.8M, A112.19.9M, and A112.19.13 and ASSE standards 1009-90.

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

Revised Code § 3781.10: <u>http://codes.ohio.gov/orc/3781.10</u> Revised Code § 3781.11: <u>http://codes.ohio.gov/orc/3781.11</u>

- 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:

"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 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;

# 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.

Continuing law in Rules 4101:3-2-01, 4101:3-3-01, 4101:3-4-01, 4101:3-6-01 and 4101:1-13-01 were previously reviewed by the Common Sense Initiative (CSI) Office. On October 31, 2012, the CSI Office issued a memorandum making no recommendation regarding Rule 4101:3-13-01 and concluded that the Board should proceed with formal rule filing with the Joint Committee on Agency Rule Review. On January 9, 2014, the CSI Office issued a memorandum making no recommendation regarding Rules 4101:3-2-01, 4101:3-3-01, 4101:3-4-01, 4101:3-6-01, and 4101:3-13-01 and concluded that the Board should proceed with formal rule filing with the Joint Committee on Agency Rule Review. Finally, on June 12, 2014, the CSI Offices issued a memorandum making no recommendation regarding Rule Review. Finally, on June 12, 2014, the CSI Offices issued a memorandum making no recommendation regarding Rule Review. Finally, on June 12, 2014, the CSI Offices issued a memorandum making no recommendation regarding Rule A101:3-13-01 and concluded that the Board should proceed with formal rule filing with the Joint Committee on Agency Rule Review. Finally, on June 12, 2014, the CSI Offices issued a memorandum making no recommendation regarding Rule 4101:3-13-01 and concluded that the Board should proceed with formal rule filing with the Joint Committee on Agency Rule Review. Finally, on June 12, 2014, the CSI Offices issued a memorandum making no recommendation regarding Rule 4101:3-13-01 and concluded that the Board should proceed with formal rule filing with the Joint Committee on Agency Rule Review.

On February 24, 2015, the Board sent an email to all agency stakeholders informing them of a scheduled stakeholder meeting on March 13, 2015 to hear comments and respond to questions on these rules. The email and stakeholder distribution list are attached as Exhibit A. The notice summarized the proposed amendments and also informed stakeholders that they if they could not attend the stakeholder meeting, they could submit questions or

comments via email or regular mail by March 31, 2015. On March 13, the Board conducted a stakeholder meeting on the proposed rules between 10:00 AM and 2:00 PM and the following individuals attended: Robert Kerst, BBA, Ronald K Bartley, SWO ASPE, Mike Miller, City of Strongsville, Ron Schmitt, PHCC Ohio, Robert Schutz, City of Columbus, Rodger Switzer and James Richardson, City of Columbus. The stakeholder meeting agenda and material distributed at the meeting are attached as Exhibit B.

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

A copy of the correspondence the Board received in response to February 24, 2015 email and a summary of the March 13, 2015 stakeholder meeting are attached as Exhibit C.

All comments received were reviewed by the Board's Code Committee at its April 16, 2015 meeting.

At the March 13<sup>th</sup> stakeholder meeting, both Jim Richardson and Rodger Switzer question the inclusion of new definitions for work not regulated by the plumbing code. The Board's Code Committee reviewed these comments and determined not to make a change. Definitions for tanks have been included to ensure the rules developed by the Board to provide clarification on the regulation of above-ground storage tanks are consistent across the commercial codes adopted by the Board. Additionally, while the Ohio EPA regulates containment and isolation backflow devices, the inclusion of the definitions in the plumbing code is a result of work between the Board and Ohio EPA to provide clarity in the regulatory role of each and consistent definitions are being used across agencies.

At the March 13<sup>th</sup> stakeholder meeting, Jim Richardson, Robert Schutz and Rodger Switzer all opposed language included in Section 312.11 referencing the Ohio EPA testing requirements for low pressure cut-off devices, low suction throttling valves, and variable speed suction limiting controls. Rocco Fana also submitted written comments on this proposed language. While these requirements are not enforced by the certified building departments and health districts, they were proposed to further coordination of plumbing system regulations between agencies. The Board's Code Committee reviewed these comments and agreed that the specific referenced to the annual test should be removed as it is not a test required by the plumbing code but retained the section for informational purposes so owners are aware of the additional testing requirements of the Ohio EPA.

Maurice Wyckoff submitted written comments proposing to bring in language from the ICC A117.1 standard for accessibility for drinking fountains in proposed Section 410.2. The Board's Code Committee reviewed the comment and determined not to make a change because drinking fountains are not required where bottled water coolers are provided. The

Committee also decided that the accessibility requirements of the Ohio Building Code and the ICC A117.1 are applicable only where <u>drinking fountains</u> are provided, not when bottled water coolers are provided, and that there was no need to change the proposed language. Mr. Wyckoff submitted additional written comments July 17, 2015. These comments were again reviewed by the Code Committee at its meeting on July 23 seeking confirmation of the Board's intent to allow bottled water coolers as an alternate to drinking fountains as described in Section 410.1 of the OPC. The Committee confirmed the Board's intent that the code language is clear, and that no change is needed.

The Board received input from PHCC/ACCA regarding the proposed clarification to Sections 312.2 and 312.3 limiting testing methods for plastic piping. John Baldridge also submitted written comments expressing concerns regarding the feasibility of water tests. PHCC/ACCA suggested that the proposed language be modified to continue to permit air testing on plastic piping if the manufacturer permits air testing. The draft rules have been modified to reflect this change. See response to Questions 14 & 15.

## 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 2009 International Plumbing Code (IPC) 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 2009 IPC 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 Plumbing Code on November 1, 2011.

Many of the changes included in the package are as a result of the Board's review of 2012 IPC. The Board determined to not do a full code update on the 2012 IPC, but instead adopt select provisions that provide clarification and keep the code responsive to trends and new technologies in construction. Other provisions provide clarification of the scope of the building code as a result of unique regulatory structure in Ohio.

# 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?

The majority of the amendments included in this package provides clarification as to the scope of the plumbing code or provide additional options/exceptions to requirements thereby providing regulatory relief. To not make these changes would prevent designers and building owners from taking advantage of these clarifications.

### 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. This authority includes the adoption of standards for plumbing systems.

# 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.

#### 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; Limitation on air testing for plastic pipe.
- b. Identify the nature of the adverse impact (e.g., license fees, fines, employer time for compliance); and

Difficulty performing water tests under certain circumstances (e.g. during winter or when no water is available yet on site).

### 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.

Water testing take approximately 3 times as much time to perform than air testing. Also, if water needs to be brought to the site, the cost of shipping is approximately \$300 per truck load.

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

Testing with air pressure on plastic if done improperly is hazardous. There is a risk of explosion if too much air pressure is applied. Water testing is safer and more accurate. This is consistent with IPC '09, '12 and '15 codes as well as many manufacturers of plastic pipe

installation requirements. However, after working with stakeholders the rules as modified in this package still would permit air testing of plastic pipe if the manufacturer permits that method of testing. This still give owner options if air testing is preferred method for testing, then they would need to use pipe where the manufacturer permits air testing.

#### **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 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.

### Hanshaw, Regina

From: Sent:	Lane, Michael Tuesday, February 24, 2015 4:05 PM
To:	Lane, Michael
Cc:	Hanshaw, Regina; Regoli, Steve; Ohler, Debbie; Johnson, Robert; Thiel, Kelly
Subject:	Board of Building Standards Proposed Rules/Stakeholder Meeting Notification
Attachments:	Stakeholder Meeting Notification.pdf

Board of Building Standards Stakeholder:

You are receiving this message pursuant to the requirements of Executive Order 2011-01K and Senate Bill 2 of the 129th General Assembly, which require state agencies, including the Ohio Board of Building Standards (Board), to draft rules in collaboration with stakeholders, assess and justify any adverse impact on the business community, and provide opportunity for the affected public to provide input on the rules.

#### **Stakeholder Meeting**

The Board will conduct a Stakeholder Meeting to hear comments and respond to questions on the proposed amendments summarized below on March 13, 2015 from 9:00 AM to 1:00 PM in Training Room 1, 6606 Tussing Road, Reynoldsburg, Ohio 43068. All interested stakeholders are invited to attend. The agenda for the meeting is as follows:

10:00  AM - 11:00  AM	Proposed Ohio Building Code Rules
11:00 AM – 12:00 PM	Proposed Ohio Plumbing Code Rules
12:00 PM – 1:00 PM	Proposed Ohio Mechanical Code Rules Proposed Residential Code of Ohio Rules

#### **Overview of Proposed Rules**

#### Proposed Ohio Building Code Rules

The Board proposes to amend the Ohio Administrative Code as follows: 4101:1-1-01 to clarify that public water systems, private water systems, marinas, and portable mobile vehicles are outside the scope of the codes, to exempt above-ground storage tanks from approval, to clarify that gas process equipment, tanks, and foundations are exempt from approval, to clarify that process equipment tanks and foundations are exempt from approval, to add the option and requirements for an incidental inspection program, to correct references that no longer apply, to delete the requirement to provide the fire protection system installer to the building department prior to approval, to clarify that the building department is to be notified of hazardous materials storage, to define the incidental inspection program, to require that Industrialized Unit manufacturer's report the insignia number of shipped units, and to modify the fees for services provided by the Division of Industrial Compliance; 4101:1-2-01 to add definitions for 24-hour care definition, above-ground storage tank, engine-mounted tank, fuel tank and incapable of selfpreservation, to modify definitions for ambulatory health care facility, building services equipment and historic building, and to delete the definitions for adult family home and home, adult family; 4101:1-3-01 to add casinos and cafeterias, to modify term "Ambulatory Health Care Facility," to modify definition of Ambulatory Health Care Facility, to add commercial kitchens in § 306.2, to clarify intent of exception in § 307.1 as it relates to building service equipment, to add row and note "q" for combustible dusts and modify note "i" to add diesel oil and references to OMC in Table 307.1, to add qualifier and code reference for combustible dust, to add clarification and conditions for those buildings permitted to use the RCO design requirements, and to clarify that building service equipment tanks are Group U; 4101:1-4-01 to modify requirements for Ambulatory Care Facilities and to make general editorial corrections; 4101:1-5-01 to modify note "b" in table 503 to provide reference to Chapters 4 and 5; 4101:1-7-01 to add a reference to NFPA 221 for the construction of double fire walls, to add an exception to the hoistway venting requirement, to add two exceptions to the smoke barrier continuity requirements, to add two exceptions to the membrane penetration protection requirements, to add an exception for exterior curtain wall intersection requirements, and to add an additional exception to the fire damper requirement; 4101:1-9-01 to clarify requirements for Ambulatory Care Facilities, to clarify that two fire pumps are not necessarily required in all cases, to provide a cross reference to existing § 407.2.5 which

allows domestic type hood suppression systems meeting UL 300A, to provide clarification of hose connection locations, to delete marina standpipe requirements as outside the scope, to clarify extinguisher requirements in Group I-2 nursing homes, to coordinate with existing Chapter 11 requirements for voice/alarm systems, to coordinate Ambulatory Care Facility requirements, to require emergency voice/alarm communication systems in schools, to add clarifying language and to add additional options consistent with OEPA rules and NFPA 20; **4101:1-27-01** to provide clarification and design guidance for emergency and standby power systems, to provide clarification and design guidance for stationary generators and the associated fuel supplies, to add a row for casinos, to add note "i" eliminating the requirement for service sinks in certain B and M occupancies, to increase the threshold for separate facilities in mercantile occupancies, to add a new section that allows two family or assisted use toilet facilities to serve as separate facilities, to clarify the drinking fountain requirements and to clarify the setting requirements for fixtures; **4101:1-31-01** to remove language relating to mobile units; **4101:1-35-01** to update NFPA standards 30 and 31 and add standards 37 and 221 and to add UL standard 300A.

These proposed rules can be viewed here:

http://www.com.ohio.gov/documents/dico\_OBCproposedchangesforMarch2015stakeholdermeeting.pdf

#### Proposed Ohio Plumbing Code Rules

The Board proposes to amend the Ohio Administrative Code as follows: 4101:3-2-01 to add definitions for above-ground storage tank, building service equipment, containment backflow prevention device, engine-mounted device, fuel tank, isolation and backflow prevention device, to modify definitions for combination waste and vent system, listed and plumbing fixture and to delete definitions for third party certification agency, third party certified and third part tested; 4101:3-3-01 to clarify that materials should include markings required by the referenced standards, to change 'third party' to 'approved agency' and clarifying language to delete third party requirements in Table 303.4, to clarify that insulation is required for each hot water pipe when bundled, to reference § 1612 of the building code for flood resistance, to clarify plastic pipe testing procedure, to clarify plastic pipe testing procedure, to clarify isolation backflow prevention device inspection and testing procedure as a result of coordination with OEPA, to add operational testing of low pressure cut-off device, low suction throttling valves, and variable speed suction limiting controls as a result of coordination with OEPA and to make general editorial corrections; 4101:3-4-01 to add specific plumbing fixture requirements for casinos and to add a service sink exemption for business and mercantile occupancies with occupant load fewer than 15 in Table 403.1, to allow family or assisted-use toilet facilities to serve as separate facilities, to clarify toilet room location, to clarify drinking fountain fixture locations, to remove Figure 405.3.1, to modify the minimum number of drinking fountains required and exceptions, to remove reference to commercial food waste grinders, to modify the language requiring tempered water for public hand-washing facilities, to add standard for liquid-type, trowel-applied, load-bearing, bonded waterproof materials, to add requirements for water closet personal hygiene devices and to make general editorial corrections; 4101:3-6-01 to modify reference standards, add pipe as well as tubing, and add polyethylene of raised temperature (PE-RT) , to add polyethylene of raised temperature (PE-RT) plastic tubing and reference standard plastic tubing in Table 605.3 in Table 605.4, to modify reference standards and to add polyethylene of raised temperature (PE-RT) plastic tubing and reference standard in Table 605.5, to add polyethylene of raised temperature plastic requirements, to add PE-RT flared joints and mechanical joints requirements, to add variable speed suction limiting controls to booster pump requirements and to clarify jurisdiction as a result of coordination with OEPA, to add temperature limiting means to hot water supply system requirements, to specify installation of temperature-actuated mixing valves and to make general editorial corrections; 4101:3-9-01 to clarify the length of a combination drain and vent system shall be unlimited and to add § 920 Single Stack Vent System; 4101:3-13-01 to add ASME standards A112.4.2-2008, ASTM standards F2735-09 and F2769-09, WWA standards C901-08 and C904-08, CSA standards B45.10, B45.15, B125.1, B125.2, B125.6, B356-05, and B483.1-07, to update ASME standards A112.18.1, A112.18.2, A112.18.3, A112.18.6, A112.19.1, A112.19.2, A112.19.3, A112.19.5, A112.19.7, CSA standards B45.1, B45.2, B45.4, and to remove ASME standards A112.19.6, A112.19.8M, A112.19.9M, and A112.19.13 and ASSE standards 1009-90. These proposed rules can be viewed here:

http://www.com.ohio.gov/documents/dico\_OPCproposedchangesforMarch2015stakeholdermeeting.pdf

#### Proposed Ohio Mechanical Code:

The Board proposes to amend the Ohio Administrative Code as follows: **4101:2-2-01** to add definitions for above-ground storage tank, building service equipment, engine-mounted tank and fuel tank; **4101:2-3-01** to add requirement for manufacturer identification, to add requirement for listing of plastic pipe, to add requirement for approved agency testing or listing of piping, tubing, and fittings and to make general editorial corrections; **4101:2-5-01** to coordinate the supervision requirement found in the fire code, to add diesel fuel § 502.9.5, Exception 3, to add requirements for underground grease ducts, to add code references in § 507.1 which are exempt from certain requirements, to add an exception for integral down draft exhaust systems and to make general editorial corrections; **4101:2-9-01** to add design guidance and clarification for fuel tanks supplying engine-driven building service equipment, to add design guidance for gaseous fuel supply for engines supplying building service equipment, to add design guidance for make general editorial corrections; **4101:2-13-01** to add design guidance for diesel oil storage and piping systems associated with building service equipment, to add design guidance for diesel oil storage

and piping systems associated with building service equipment, to add design guidance for fuel oil and diesel oil storage for building service equipment and to make general editorial corrections; **4101:2-15-01** to update NFPA standard 31 and to add NFPA standards 30 and 96 and to update standard UL 2200 and to add UL standard 2085.

These proposed rules can be viewed here:

\* \*

http://www.com.ohio.gov/documents/dico\_OMCproposedchangesforMarch2015stakeholdermeeting.pdf

#### Proposed Residential Code of Ohio Rules:

. .

The Board proposes to amend the Ohio Administrative Code as follows: 4101:8-1-01 to add language including electrical equipment associated with bodies of water, to add an exception for private water systems, to add above-ground storage tanks as work exempt from approval, to add an incidental inspection program and requirements, to remove language regarding the installer of fire protection systems, o add accessibility provisions to plan submittal and to make general editorial corrections; to add definitions for above ground storage tank, building service equipment, engine mounted tank and fuel 4101:8-2-01 tank; 4101:8-3-01 to add detached garages with an exterior wall located  $\geq$ 3 ft from a lot line in to exceptions to § 302.1, to specify the technology requirements in § 314.1, to add an exception for systems meeting in § 314.2, to add Type C (visitable) to accessibility scope and to make general editorial corrections; 4101:8-5-01 to update references in §§ 502.1.1 and 502.2.1, to remove deck lateral load connection language, to remove figure 502.2.2.3, and to add clarification to the exceptions for vapor retarder requirements in § 506.2.3; 4101:8-19-0 to add a section for Engine and gas-turbine powered equipment and appliances, to add requirements for engine-driven equipment and appliances and fuel tanks connected to engine-driven building services equipment requirements and to make general editorial corrections; 4101:8-22-01 to add a scope to the Special piping and storage systems chapter, to add diesel oil to the scope of above-ground tanks requirements, to add an exception and specify a reference standard in § 2201.2 and to add regulated underground storage of fuel oil requirements; 4101:8-24-01 to add CSST bonding and to update language from 'air conditioners' to 'equipment and appliances;' 4101:8-34-01 to add provisions for emergency and standards 30-15, 37-10, 110-10, standby power systems; 4101:8-44-01 to update the OAC referenced codes, to add NFPA and 111-10 and update standard 31-11, and to add UL standard 2200-12.

These proposed rules can be viewed here:

http://www.com.ohio.gov/documents/dico\_RCOproposedchangesforMarch2015stakeholdermeeting.pdf

#### **Contact Information for Comments or Questions**

If you cannot attend the above Stakeholder Meeting, you can submit written comments or questions on the proposed amendments to the Board. You may submit your comments via email at <u>BBS@com.state.oh.us</u> or U.S. Mail at Ohio Board of Building Standards, 6606 Tussing Rd, Reynoldsburg, Ohio 43068, Attn: Regina Hanshaw by March 31, 2015.

Sincerely,

Regina S. Hanshaw Executive Secretary Ohio Board of Building Standards



Regina Hanshaw Executive Secretary Ohio Department of Commerce Board of Building Standards 6606 Tussing Rd., Reynoldsburg, OH 43068 614-644-2613 www.com.ohio.gov

This message and any response to it may constitute a public record and thus may be publicly available to anyone who requests it.

24/15

Abrams ADAM Adams ADAMS **ADKINS** Adkinson Adler ADLEY AFFOLTER AKERS Akester ALBERT ALBRIGHT ALEKSICH Alesci Alexander Alexander ALFORD ALI ALLEN ALLINDER ALLRED ALT ALVAREZ AMATO Amburgey AMICK AMOS AMOS ANDERSON ANGLIN ANKROM ANTROBUS **APANASEWICZ** Arbogast ARDITO Ark Armeni ARNDT Arnold ARNOLD ARNOLD ARORA ARRENDALE ARRIAGA ARTERS

-

4

dva59@aol.com ladam@masonoh.org bryan.adams@daytonohio.gov scottinohio@roadrunner.com wradkins@windstream.net badkinson@richlandcountyoh.us adler1@hughes.net wadley@neo.rr.com jeff@mmelectricinc.com heinz33346@roadrunner.com dgakester@gmail.com joealbert@gmail.com galbright@horizonview.net a.aleksich@femoran.com johnnyboy317@att.net jalexanderplumbing@yahoo.com oalexander@city.cleveland.oh.us stevejalford@yahoo.com columbuselectric@aol.com jma819@juno.com callinder@columbus.gov tallred@pfscorporation.com jalt@altarchitecture.com RA859@neo.rr.com jamato@co.delaware.oh.us bamburgey@newtechlexington.com dcamick@columbus.gov gamos@cityofwestlake.org amos@cityofmentor.com diana\_lee\_@hotmail.com paulanglin@jomory.com jhankrom@yahoo.com rob.antrobus@ohiovalleymonitoring.com rapanasewicz@munibis.com jarbogast@simplexgrinnell.com Tom.Ardito@yahoo.com reese@arkplumbingandpiping.com jnarmeni@sbcglobal.net arndt-mike@maumee.org arnoldb@ci.fairlawn.oh.us SArnold@city.cleveland.oh.us tatcahd@gmail.com ldarora@com.state.oh.us rla4938@neo.rr.com arriaga2012@yahoo.com

russa@cityofnorton.org

ARTHUR Artrup Artrup ARVIN Asebrook ATER **ATHANAS** ATHY ATHYA **ATKINS** Austin Jr AVEN Ayres BAGGETT Bailey BAILEY Baker BAKER BAKER BAKER **BALDAUF III** BALDWIN BALESTER BALOGH BALSER BALSER Barber Bargdill Barisic Barisic BARKALOW Barkas Barker Barnes **Barnes** Barnes III BARNETT BARNETT II Barnum BARR Bartley Barton Bashaw Bass BASSETT BASTIAN BAUER

3

÷

karthur@richlandcountyoh.us bjartrup@hotmail.com bjartrup@grandviewheights.org dkssarvin@yahoo.com masebrook@asebrook.com pggater@gmail.com tedathanas19633@gmail.com rich@systems28.com k25velo@neo.rr.com sgatkins@columbus.gov donald\_austin@sbcglobal.net kaven@avenfire.com rayres@grandviewheights.org mbaggett@cinci.rr.com baileyted39@yahoo.com jbailey@vanguardalarms.com gary.baker@cantonohio.gov leejbaker@gmail.com bakert67@aol.com tbaker@vandaliaohio.org esi@vandaliaohio.org jeanlen@embargmail.com wbalester@seuclid.com kenketo@gmail.com j.balserjr@comcast.net jbmdia@comcast.net ericbarber36@yahoo.com joe.bargdill@westerville.org tonybarisic@aol.com tbarisic@city.cleveland.oh.us nealbarkalow@hotmail.com jbarkas@sbcglobal.net barkerf@yahoo.com r21barn@yahoo.com iaeiakrondiv@gmail.com rbarnes@city.cleveland.oh.us bbarnett@masonoh.org paul.barnett11@gmail.com ericmbarnum@yahoo.com mibhd@aol.com bbartley.mail@gmail.com kn5dx@hotmail.com and reabashaw@asidaco.com jbass\_0182@fuse.net mark@bassettsprinkler.com don\_bastian@yahoo.com bbauer@lycos.com

BAUGHMAN BAUMANN BAUMGARTNER BAUSCHLINGER BAUSCHLINGER BAXTER Baytos BAYUS BEACH BEAM BEAN BEARDEN BECKER BECKWITH Becoat Becoat BEDILION BEELER Beetz BEIRNE Belding BELL BELLOMA Belsole BENEDETTI Benjamin Benko BENNETT BENNETT BENNETT BENSON Bentley Beres BERGMAN **BERGMAN JR** BERLING BERLINGER Berry Berry BERTEAU BERTEAU BEUTLER **BEVERLY JR** BEYER **Bichara** BIDDISON BIEDENBACH

johnfireray@embarqmail.com proalert@fuse.net baumgartnerfarm@msn.com jbauschlinger@cityofbarberton.com jbauschlinger@neo.rr.com baxterskyles@hotmail.com jbaytos@romanoffgroup.cc rebayus@earthlink.net brian\_beach@norwichtownship.org mike.beam@communale.com electraglide1450@gmail.com bmonaro@yahoo.com dbecker@simplexgrinnell.com john.beckwith@comunale.com blanchelouis@yahoo.com mbecoat@city.cleveland.oh.us williambedilion@windstream.net stan.beeler@yahoo.com rwb@beetzplumbing.com kfbeirne52@yahoo.com rbelding@cityofcolumbiana.org gear910@aol.com william.belloma@gmail.com bellselectric2@gmail.com vinniebene@yahoo.com thebenjfamily@yahoo.com jbenko@medinaoh.org jrbennett@neo.rr.com mibennett@simplexgrinnell.com rbennett@warren.org captain\_hook@roadrunner.com sbentley@ci.union.oh.us kurtb@ma-architects.com billb@securcom.com bergman@englewood.oh.us gerry.berling@cincinnati-oh.gov mberlinger@totalsafety.com jberry@hardfire.com bcbd@frontier.com rberteau@broadview-heights.org rob379@sbcglobal.net wbeutler@sbcglobal.net nithawk48@neo.rr.com jebeyer@columbus.gov cbichara@middleburgheights.com rbbiddison@columbus.gov plbiedenbach@aol.com

4

BIEDERMAN **Bieler** BIERLEY BIGELOW BIGELOW Biggert BIHLMAN BILLS Binder Jr BINFORD BIONDILLO Birckelbaw BISHOP BLAGG BLAKEY BLANKEMEYER BLATCHFORD **BLONDIN** Blue Donald BOARD BODO Bogart Bogart BOGNER BOHACHEK Bohland **Bohnert** Bolender BOLES BOLL **Bonifas** BONNOUGH Bonvissuto II BOOGHIER Booth BORDER Boring Boros BORYCA BOSHANE BOSO BOSO Bourquin BOWMAN BOZAK **BOZEMAN JR** Bozman

٩,

÷

1@biedermanfire.com michaelbieler@sbcglobal.net rebarch@aol.com rbigelow@co.delaware.oh.us rbigelow12@hotmail.com daveb@gatesmillsvillage.com mbihlman@fuse.net tsbills@hometowncable.net rickbinder78@gmail.com reggie.binford@cincinnati-oh.gov tony.biondillo@strongsville.org birckelbaw06@gmail.com rod.bishop@atech-fire.com blagg79@yahoo.com jerryblakey@yahoo.com blankemeyerelectric@hotmail.com BA@studio-10.com jkbringer@sbcglobal.net ayonna.blue.donald.esq@gmail.com cboard@centralfp.com abodo@cityofsteubenville.us jbogart@bogartarchitecture.com bogart66@yahoo.com jbogner3@neo.rr.com kip.bohachek@ketteringoh.org tbohland257@att.net scott.bohnert@cincinnati-oh.gov bolenderj@cintas.com dboles@ntainc.com bbbooll@windstream.net bonifass@nwoss.com tfd.darrell@yahoo.com sbonvissuto@cityofeuclid.com danaboo1@msn.com arniebooth@wjohio.org mcmayor46@yahoo.com rboring@ntainc.com glennboros@att.net mike@eco-arch.com cboshane@solonohio.org mboso@columbus.rr.com mboso@grovecityohio.gov MTB@Copp.com rdbowman@co.miami.oh.us cubmstr161@yahoo.com cbozeman@mjwood.com jbbozman@yahoo.com

BRADLEY BRADY BRAKHAGE BRANDT BRANKATELLI BRANSON **BRATHWAITE JR** BRATTON Brauer BREEZE BREMMER Brennan Brennan Jr Bright Brill Brinkley BRINLEY Bristow BROKAW BROOKS BROOKS BROOKS BROOKS BROOKS BROWER Brown **BROWN JR** Brownlee Brownlee BRUEN Bruggeman BRULPORT Brumfield BRUNNER Bruns Bryant **BRYKALSKI JR** 

\$

4

khbldz@neo.rr.com mbrady7411@gmail.com sbrakhage@3s-incorporated.com t.a.brandt@att.net rossbrank@aol.com ronnie.branson2@gmail.com wwbrathwaite@columbus.gov hydromark@msn.com brauerbuilding@gmail.com breezea@ohio.edu bremmer038@roadrunner.com sbrennan@cityofwillowick.com cowboybrennan@yahoo.com millwooddog@yahoo.com dbrill@delawarehealth.org whicks@mcfs.us tbrinley@richlandcountyoh.us jeffrey.bristow@siemens.com ROBERT.BROKAW1@GMAIL.COM dbrooks@harrisonohio.gov rbrooks@co.greene.oh.us rjb086@woh.rr.com mbrooks@integratedprotection.com sbrooks@westchesteroh.org bmbrower@roadrunner.com bbrown@cityofwarrensville.com wbstevebrown@gmail.com fredbrown1947@fuse.net gary.brown@ketteringoh.org william.brown@cityhall.lima.oh.us larrybrown1st@aol.com sbrown2@sbcglobal.net mike.sdes@yahoo.com sbrown3@city.cleveland.oh.us brownfcjr@sbcglobal.net scbrown1@gmail.com rbrown@bedfordoh.gov naemale@aol.com nbrownlee@city.cleveland.oh.us kenbruen@sbcglobal.net agbrugg1@gmail.com dbrulport@sidneyoh.com brumfield.s@gmail.com james.brunner@cincinnati-oh.gov mbruns@moteassociates.com rjb298@hotmail.com resw7cmf@frontier.com

Buchler **BUEHRER** BUELOW BUHROW **BULL JR BUMBALIS** BUNN BURDAY BURG BURG BURNS Burnside BURRIS Burroughs Burroughs BUSCH BUTCHER BUTCHKO Butkovic BUTTS BUZA CACIOPPO CAITO CALAWAY CALDWELL Calkins CALLIHAN CAMBURU Camou CAMP CAMPBELL CAMPBELL CAMPION Canady Jr. Canterbury CANTRELL CANTU Cantu Jr CAPLINGER CAPUCINI Caraballo CARBONE **CAREY JR** CARLETON CARLSON CARLSON CARMACK

٠

gbuchler@ovis.cc pbuehrer@ci.oregon.oh.us gwbinc@gmail.com tbuhrow@co.ottawa.oh.us jebulljr@aol.com abumbalis@aol.com db333313@yahoo.com curt7@windstream.net gerald.burg@com.state.oh.us s.l.burg@sbcglobal.net BILLBURNS08@AIM.COM tburnside@ci.lancaster.oh.us deburris@columbus.gov timothyburroughs1120@yahoo.com eburroughs@phoenixssinc.com dave\_busch@cityoflorain.org rcbutcvher@columbus.gov bclick@butchkoelectric.com jbutkovic@ipsid.com jwbuttsjw@gmail.com sbuza@aol.com cmykey@neo.rr.com larrycaito@gmail.com ccalaway@brunswick.oh.us jimc@firefoe.com richard.calkins@cincinnati-oh.gov callihan@callihanelectric.com acamburu@yahoo.com david100483@gmail.com sparkette661@sbcglobal.net blair.campbell@com.state.oh.us mcampbell@dupps.com rcampion@springdale.org tmitchell@midwestsprinkler.com mcanterbury@simplexgrinnell.com jcantrell@co.miami.oh.us ralph\_cantu@cityoflorain.org cantuforu@gmail.com ron@craynonfireprotection.com topdawg45@bex.net wcaraballo2@city.cleveland.oh.us pvcdwv@yahoo.com bcarey@stow.oh.us tomster213@gmail.com acarlson@pyramid1inc.com sci@firedefense.com tcarmack@afire1.com

Carney CARR Carraher CARROLL CARTER CARVER CASINI Catacutan CATALONA CATTRELL CAVAN Cavanaugh Cavender CEGELKA CENDOL CENZORI CEREPAK Cerrone Chaffin Jr CHANDLER Chapin Jr. CHARTOUNI CHATHAM CHEATHAM CHINN CIEPIEL CIRVENCIC Clark CLARK CLARK Claytor CLIFFORD CLIFTON Cline Clines CLINGMAN **CLIPSON** CLOES CLOUSE CO COAKLEY Cockayne COCKRELL COFFEY COHEN COHN III Coleman

٠

milton.carney@gmail.com admin@carr-electric.com vince\_carraher@yahoo.com carrollrandy15@gmail.com tcarter@silcofs.com rgcarver@columbus.gov ncasini@rcuarchitects.com rcatacutan2@city.cleveland.oh.us tcatalano@stow.oh.us bcattrell3802@wideopenwest.com the220@yahoo.com leah309ang@yahoo.com bcavender@a1ssi.com dcegelka@twinsburg.oh.us robert.cendol@toledo.oh.gov ampy2000@sbcglobal.net tim.cerepak@comunale.com arcerrone@aol.com eagleinspectionsrc@yahoo.com schandler@healeyfire.com jchapin68@gmail.com char2ni705@comcast.net dchatham@wowway.com jcheatham@safebuilt.com mchinn@grovecityohio.gov paul@apmcabling.com cirvann@sbcglobal.net chris.clark@cincinnati-oh.gov jcflashusa2000@yahoo.com paultheelectrician@gmail.com claytorj@mymail.shawnee.edu jcliffordc@mindspring.com jake4426@yahoo.com mcline@schmidtsecurity.com pjc8581@aol.com ddclingman@columbus.gov addisonclipson@yahoo.com bcloes@ci.mansfield.oh.us jclouse@trarnold.com ctco40@aol.com kcoakley@co.union.oh.us robert.cockayne2@daytonohio.gov dcockrell@ntainc.com dencoffey@hotmail.com sdc98@aol.com william.cohn@cincinnati-oh.gov bcoleman3@aol.com

COLLINS COLWELL COLWELL COMBS COMBS COMBS CONNER CONNOLLY Conrad CONROY II Conti CONVERY Conway Conwell Cook Cook Cook COOK Cooley Cooley COOPER COPELAND COPELAND CORCORAN Corfman Sr Cormack Jr CORRENTI Cossin COTRELL COUCH COUNTS Cowles Cox COX CRAIG JR CRAWFORD CREASE CRIPPEN CROMARTIE Cromer II CRONK CROSBY Crutchlev **CUCCIA CUEVAS** CUFFARI Cummins

٩

dcollins@preview-group.com lcolwell@natinspect.com robc@transtarcorp.com bruce.combs@toledo.oh.gov bruacom@gmail.com cbotex37@aol.com taconthehill@yahoo.com wconnolly772@live.com mconradarchitect@gmail.com billeconroy@gmail.com fra4157@aol.com tconvery@ameritech.net bconway@dublin.oh.us rfconwell@windstream.net hcook001@roadrunner.com t\_jcook@sbcglobal.net kcook@ntainc.com cookelectricinc.jc@gmail.com b4mookie@aol.com dcooley@city.cleveland.oh.us djcooper@roadrunner.com mypc123@roadrunner.com srcarchitect@sbcglobal.net cjcorcoran@oakgroupcode.com northcoastpower@hotmail.com ohioplumber@hotmail.com mcserinc@yahoo.com cbd288@att.net rtcotrell@watchtv.net flloyd1@ameritech.net djcounts@columbus.gov americanplumbing@oh.rr.com dcox@simplexgrinnell.com ecox@painesville.com mittendiver@gmail.com charles.crawford@cincinnati-oh.gov proncon@windstream.net rcrippen@clarkcountyohio.gov mikec54@gmail.com tcromer@medinaoh.org sdcronk@columbus.gov fireguardinc@aol.com mcrutch@tlglss.com mcuccia@brecksville.oh.us bgc161@yahoo.com paulcuffari@gmail.com cummins@cvelimited.com

CUNNINGHAM CUNNINGHAM CUNNINGHAM CUNNINGHAM CUREE CURRIER CURRY CURTIS CYPHERT CZAPP DABDOUB DABDOUB D'Agostino DAKIN DALEY DANDO JR DANE D'ANGELO DANIEL DANN DANOLFO DANTZLER Darragh Davis Davis DAVIS DAVIS DAVIS DAVIS DAVIS DAWSON DAY DEAL **DeAmicis** DEBENEDICTIS DECKER DECKER JR DeGeorge DEICHMANN DeJesus Jr Delaney DELGIUDICE DeLorenzo DELZANI DeMassimo DEMEDAL DEMYAN

.

edward.cunningham@cincinnati-oh.gov dave44@embarqmail.com bldg@huntingvalley.net m.cunningham@csuohio.edu cureeenterprises@aol.com seth.currier@cincinnati-oh.gov tim@curryelectric.com LIFTEDJEEP@ROADRUNNER.COM mcyphert@pfscorporation.com louiecza@yahoo.com majed.dabdoub@cincinnati-oh.gov majed@dabdoub.net quinn090909@yahoo.com ben.dakin@vfpfire.us backtrax@ameritech.net jim.dando@troyohio.gov ld4rn@yahoo.com jimd@absolutefp.net dldaniel@columbus.gov bdann@columbus.rr.com witchatalinesman@att.net ddlad1@aol.com rdarragh@columbus.rr.com fightingfire93@neo.rr.com cdavis4@city.cleveland.oh.us joshd@concordfp.com john.davis@xentrysi.com sdavis@woosteroh.com cdavis3@city.cleveland.oh.us gdavis@pickaway.org dardawdude@yahoo.com donmo10090@yahoo.com deals5526@hotmail.com david\_deamicis@yahoo.com lance@x-celeng.com dandecker@safetysystems.net jedjrpe@oh.rr.com rdegeorge@neo.rr.com pdeichmann@cityofparma-oh.gov cjabdejesus211@gmail.com jdelaney@ssoe.com ndgarchitect@yahoo.com bobdelo@att.net jdelzani@rrcity.com r.demassimo@yahoo.com mdemedal@yahoo.com rdem1300@sbcglobal.net

**DENICHOLAS** DEROSA DERR Derrett DESVARI DETTMANN DeVault **DEVITO JR** DEWHURST DICKARD DICKERSON Dickey Dickinson Dicks DIEHL DIETZ DiFranco DILES Dinardo Dinardo Dingle Dinwiddie Disalvo DIZDAR Dizdarevic DODDS Dodovich DODSON DOEHNE Doll DOMER DOMINICK DONOVAN DOOLEY DORENKOTT DORGAN DORN DORN Dotson DOTTS Downs Jr DOZER Draganoiu Drago DREW DRIGGS Drobina

tdbyrd@zoominternet.net satisfaction1001@yahoo.com jack.derr@hamilton-co.org rderrett@city.cleveland.oh.us desvar@aol.com tdettmann@mjwood.com bryandevault@sbcglobal.net richarddevito@aol.com ddewhurst@ahernfire.com dickardfamily@gmail.com adicke7092@yahoo.com jdickeydesigner@hotmail.com mdickinson@vanguard-fire.com jdicks@trarnold.com dadiehl34@gmail.com CHARLES.DIETZ@HAMILTON-CO.ORG mdifranco615@aol.com dilessr@yahoo.com rdinardo@sbcglobal.net rdinardo@cedarwoodd.com dingle.p@gmail.com rdinwiddie@firetechstl.com d-sdisalvo@sbcglobal.net dizytocro@aol.com benjod@cox.net edodds2393@aol.com jdodovich@gmail.com carl@advantage-fire.com edoehne@cityofwestlake.org jim@jacksonsprinkler.com nicet4@att.net jd9393@sbcglobal.net inspt99@yahoo.com pdooley1@yahoo.com dorenkottn@north-olmsted.com sdorgan@cinci.rr.com tdorncdfp@fuse.net chris.dorn@dornfireprotection.com dotsondwayne@ymail.com rdotts@telgian.com jdowns@clarkcountyohio.gov sprinklerman@wideopenwest.com gdraganoiu@cityofwestlake.org h2odr1936@gmail.com jdrew2@neo.rr.com ddriggs@co.ottawa.oh.us jdrobina98@gmail.com

DUBER DUCKWORTH DUCKWORTH DUFFY Duncan Dunham DUNNING DURANTE DURBIN Durflinger DUVALL Dvorak Dvorscak Dye Dziak DZURILLA Earley EASTEP EATON Ebeling EBY Echeverri Eckart ECKERT ECKERT EDDY EDDY EDDY Edwards **Edwards EDWARDS EDWARDS EDWARDS** EHRHARDT **EICHORN JR** EIFERT EIFERT EISENHUTH **ELASIVICH** ELEY ELLIOTT Ellis ELLIS **ELLIS ELLISON** Elmi Elrod Jr.

jduber@technearchitects.com ducks91804@yahoo.com rosscbo@horizonview.net 164alan@gmail.com gduncan@geaugacountyhealth.org Ird@usautomaticfire.com cinnkid@zoomtown.com electsummit@sbcglobal.net davedurbin@embarqmail.com helen.durflinger@gmail.com rduvall@shambaugh.com jdvorak@city.cleveland.oh.us ddvorscak@comcast.net kenjoan02@aol.com mdzhazmat@yahoo.com astech@nacs.net kearley@westlickingfire.org reastep@uaoh.net Geaton@com.state.oh.us gerald@3dfiredesign.com jameseby65@gmail.com john@ejengineering.com geman353@yahoo.com doneckert@eckertfireprotection.com jasoneck112@yahoo.com mike@elitesprinklerdesign.com chriseddy@roadrunner.com rpeddy@juno.com harry@chagrin-falls.org rzrfun111@gmail.com darryl.edwards@cincinnati-oh.gov tfaye@zoomtown.com dedwards2007@cinci.rr.com atlas.fire@yahoo.com b.eichorn@aol.com ceifert@preferredfire.com bob.eifert@hamilton-co.org jeisenhuth@solonohio.org llelasivich@zoominternet.net larryeley@live.com ronelliottarchitect@live.com kellis@cityofparma-oh.gov larrymellis@sbcglobal.net jellislsr@yahoo.com eellison@co.greene.oh.us ericelmi@yahoo.com kelrodjr@gmail.com

Elzein **EMLING ENGLAND JR** Enterman Erb Erbe ERITANO Etzwiler EUDELL Evans Evans **EVANS** Faciana Jr. FAGRELL FAHRNI FAHRNI Faile FAIR FAIRFAX FALK SR Faller Fandrich FARKAS FARMWALD FARRELL III FAULKNER FAULKNER FAULKNER FEHN Feick FELGER Felice FERGUSON FERREE Ferritto FICKERT FIEDLER Fields Filarski FILASETA Filby Fillar FINCH FINK Finney II FISHER Fistek

\*

.

yaelzein61@hotmail.com temling@middleburgheights.com rob16u@aol.com centerman@westcarrollton.org terb0@aol.com rxerbe@franklincountyohio.gov teritano@akronohio.gov tetzwiler@wayneoh.org marcuseudell@hotmail.com chris.evans@vfpfire.us ejevans943@ctcn.net beevans@hardfire.com dfacianajr@sbcglobal.net bfagrell@ci.lancaster.oh.us kfahrni@woosteroh.com kfahrni1923@gmail.com failejt@gmail.com rfair@masonoh.org sefairfax@yahoo.com jcf\_sr@yahoo.com mfaller@ntainc.com jrfandrich@wowway.com dfarkas@cityofelyria.org kofarmwa@franklincountyohio.gov mfarrelliii@yahoo.com ed.faulkner@ci.fairborn.oh.us rick.faulkner@hamilton-co.org rickandregina@yahoo.com mike.fehn@cincinnati-oh.gov feickja@aol.com bfelger@grovecityohio.gov mfelice@aol.com katray7@msn.com brian.ferree@troyohio.gov ajax1369@gmail.com rfickert@a1ssi.com ameky@hotmail.com dfields@city.cleveland.oh.us jfilarski@munibis.com dfilaseta@centervilleohio.gov filby69@gmail.com jeff.fillar@lakewoodoh.net finchacn@yahoo.com john.fink@co.warren.oh.us bob.finney@ci.ravenna.oh.us rofisher@columbus.gov ttf1002@hotmail.com

FITZGERALD FITZPATRICK FITZPATRICK **FLANIK** Flannery FLOOD FLOOK JR Flora **FLOWERS** Floyd III FLUM FODOR FOLGER FOLSOM Fomby FOOTE FORD FORD FORD SR Fornwalt Forrester FORT FOSTER FOULKES JR Fourman FOWLER FRANCISCO Franke FRANKINO FRANKLIN FRANKS FREDERICK FREIMAN FREY FRITTS FRITZ FULKS FULTZ FURSDON FUSSNER **GALASKA SR** GALDUN GALL GALLAGHER GALLAGHER-BONVENUTO Gamble GARCIA

efitzgerald@brooklynohio.gov DanF@cityofspringboro.com danbev86@roadrunner.com skillbuilder64@aol.com matthew.flannery@cincinnati-oh.gov dflood@brunswick.oh.us jim\_flook@comcast.net bflora@wtwp.com msgflowers@hotmail.com donfloyd55@yahoo.com fluma@ci.hamilton.oh.us afodor1881@gmail.com empiress@att.net cobradf54@aol.com ifomby@yahoo.com mfoote@city.cleveland.oh.us dfordsr@gmail.com cwford@sbcglobal.net fordsteven62@yahoo.com jj2nca@yahoo.com meishack@hotmail.com gafort@gmail.com roger.foster@cincinnati-oh.gov keith.foulkes@strongsville.org brent\_fourman@yahoo.com ffowler@co.delaware.oh.us richard\_francisco@att.net ian.franke@cincinnati-oh.gov jcf212@att.net kfranklin@city.cleveland.oh.us efranks36@gmail.com kfred1125@hotmail.com FREIMANK@YAHOO.COM mike.frey@gahanna.gov fsfzz@aol.com aafritz1699@sbcglobal.net roberttfulks@hotmail.com ken.fultz@gahanna.gov gfursdon@nridgeville.org pfussner.ipe@att.net emgalaska@hotmail.com galduns@yahoo.com ngall271@gmail.com bgallagher@ctconsultants.com tgallagher@eastlakeohio.com gambledoug66@yahoo.com dgarcia2@city.cleveland.oh.us

Gardner GAREAU GATES Gaus GAVER Gaylord Geiser Gemberling GEORGE GERBER GERO GHOSH GIFFORD GIFFORD GIFFORD Gilkey Gill **GILLY JR** GILMORE GILREATH Gilyard GIRBINO Givens GLADD GLADISH Gleason Gleisinger Glenn Glisic Glover GLUZINSKI GOLDEN GOLDEN GOLIS GOLIS GONZALEZ GOODALL GRABFELDER GRACE Grady GRASSI Graves Graves GRAVES GRAYEM GRAYSHAW GREBER

٠

sgardner@cityofeuclid.com gareaud@north-olmsted.com bgates@newconcord-oh.gov lgaus@roadrunner.com jgaver@ci.springfield.oh.us rgaylord@cityofsteubenville.us srgeiser@gmail.com timmyed@frontier.com jimgeorge8@gmail.com jeraldgerber@aol.com mjgero@sbcglobal.net amit.ghosh@cincinnati-oh.gov accounting@centralfp.com mike.gifford@vfpfire.us neptune235@aol.com tgagaglg@fuse.net gilbert6464@hotmail.com pgilly53@aol.com jgilmore@oregonohio.org dlgilreath@insight.rr.com dgilyard@city.cleveland.oh.us mgirbino@mayfieldvillage.com s4c11g6@suddenlink.net bigladd@co.trumbull.oh.us dangladish@msn.com sgleason@earthlink.net lgleisinger@embarqmail.com andyglenn@reagan.com mglisic@cityofeuclid.com rdg@tlglss.com vgluzinski@yahoo.com tdgolden@wowway.com tgolden@cityofelyria.org david.golis@toledo.oh.gov davidgolis@aol.com joseanddee@ncwcom.com cg.arch@earthlink.net dgrabfelder@highlandhts.com rgrace@city.cleveland.oh.us sunrise\_1959@hotmail.com inspectorgrassi@gmail.com tgraves@garberconnect.com dcg412@att.net jgraves@ci.worthington.oh.us grayem04@yahoo.com paul.grayshaw@att.net cgreber@fuse.net

Green Green Green Green GREEN GREENWALT Greer GREGGERSON GRGIC GRIESHOP Griffiths GRIMES GRISWOLD GRIVENSKY GRIZZLE GRIZZLE GROB GROGEAN Grubbs GRUBER GRUENWALD GRUSENMEYER GUDAT **GUNSALUS GUSTAFSON** GYURE HAAG Hackney Hackney HAFELE HAGAN HAHN HALE Hall Hall Hall HALL HALL HALL HALL HALLORAN HALUSKER HAMMOND Hampton HAMPTON Hanigan HANKEY

\*

.

jgreen@ohio.net greent@jacksontwp.org greenanthony@msn.com bgreen8539@aol.com Pgreen@ryanfp.com electricwe@aol.com greer8870@gmail.com nicholas.greggerso@sbcglobal.net mgrgic@city.cleveland.oh.us jamgrieshop@aol.com mark.griffiths@comunale.com nathang1077@gmail.com griswoldw@yahoo.com centralelectricinspection@yahoo.com randallgrizzle.rg@gmail.com grizzlerw@butlercountyohio.org grmxride@hotmail.com rgrogean@beavercreektownship.org twgrubbs60@wowway.com mgruber@simplexgrinnell.com arc1000@juno.com jagarch@wowway.com keith@piofinish.com Dgunsalus@hotmail.com jgustafson@hwceng.com gyure@windstream.net harley0523@gmail.com mehackney@gmail.com mehackney@columbus.gov steve.hafele@cincinnati-oh.gov pawsrus8@frontier.com c.k.hahn@att.net thale@clarkcountyohio.gov dustinhall1982@gmail.com khall@wadsworthcity.org aph585@aol.com thallsr@adelphia.net mr\_wesley@yahoo.com jhestic@juno.com koleary@cityofgirard.com nhalloran33@att.net hesinc690@sbcglobal.net jason@rollercoasterfreak.com hamptonmark40@yahoo.com tom@rthampton.com rdh@asebrook.com mgmidget73@yahoo.com

Hanley HANNA Hannan HANSON Haponek HARD Harden HARDER HARDING HARDY JR HAREN HARLER HARPER HARPHAM Harpster HARRIS Hartman HARTUNG HATCHER Hatchett HATFIELD Hatton HATTON HAUGHN HAUGHN HAUSMANN Hayek HAYNES JR HAYNES JR HAYS Heckelmoser Heckelmoser HECKENMUELLER Hed HEFFRON HEIDEN HEIDENESCHER Heilman Heimbach Heise Heitkamp HELMER HELMS Helsel HELSINGER Hemchak HEMMING

•

bhanley01@comcast.net hannaeric3@aol.com jthannan@yahoo.com ehanson@cityofavon.com dhoppy25@yahoo.com mike@hardfire.com alfred.harden@cincinnati-oh.gov tharder@co.ottawa.oh.us stharding@yahoo.com dhardyjr@zoominternet.net dave.haren@comunale.com inspector522@yahoo.com mharper@harstone.com rmharpham@gmail.com amy.harpster@cityhall.lima.oh.us harrist@mcohio.org ladymedic991@yahoo.com albert.hartung@cincinnati-oh.gov lavelleH01@aol.com chatchett@city.cleveland.oh.us poppajoe01@yahoo.com whhatton@columbus.gov james.hatton@cincinnati-oh.gov tony@starelectricgc.com tlhaughn@franklincountyohio.gov bhausmann@a1ssi.com zhayek@universityheights.com jhaynes@ovsi.net bud.haynes@hamilton-co.org whays2@columbus.rr.com dheckelmoser@city.cleveland.oh.us donn.heck@gmail.com mheckenmueller@masonoh.org rhed@summitfire.com aircrue@hotmail.com lheiden@co.geauga.oh.us raheidenscher@columbus.gov laura6111@roadrunner.com adam@pennfire.com debheise@hotmail.com firefighter\_nb29@yahoo.com shelmer@nkyei.com erichelms@woh.rr.com ron3636@hotmail.com rhelsinger@fairfield-city.org rjh71truck@aol.com mike.hemming@chapel.com

HEMPFLING Henderson **HENDERSON** HENDLEY HENDRICKS Henry HENSLEY Herda Hermanson HERNANDEZ-DENTINGER HERWERDEN HESTER Hettinger HIATT Hickman HICKMAN **HICKMAN II** Hicks HICKS HILDITCH HILL Hinders Hinkle HISSEY HITTINGER Hlad HOBART Hobby HOBGOOD HOBSON HOCEVAR Hodges Hodulik Hoffman HOFFMAN Holbert Holbrook HOLDERMAN Holfeltz HOLMAN HONEYCUTT HONG HOPPER Hormann HORNER HORSTMAN HORVATH

4

marylee502@yahoo.com ihenderson@p-e-i.com nec\_inspector@yahoo.com jhendley@beavercreektownship.org bdh@zoominternet.net henry@cvelimited.com dhensley@fairfield-city.org mherda@simplexgrinnell.com bhermanson@tristarfire.com dentinm@ameritech.net nherwerden@middleburgheights.com john9@zoomtown.com jr\_hettinger@yahoo.com mhiatt@a1ssi.com joto\_hicks@yahoo.com jhick007@gmail.com rhickman@neo.rr.com bhicks@bass-security.com jrhicks2@gmail.com dave.hilditch@comunale.com gailene.hill@cincinnati-oh.gov paulhinders@aol.com jeffery.hinkle@cincinnati-oh.gov jehissy@columbus.gov davidhittinger@gmail.com mhlad@macedonia.oh.us info@dynastyinspections.com hobbywoodbutcher@gmail.com esi942@woh.rr.com mhobson@calcominc.com dhocevar@outlook.com MSH88SLH@aol.com commish40@gmail.com rick.hoffman@cantonohio.gov r.hoffman@ieee.org hholbert@sycamoretownship.org jholbrook@co.delaware.oh.us holdermand@zoominternet.net jacobman1@sbcglobal.net gholman1@hotmail.com alleycatlures@yahoo.com corkyhong@totalink.net chet.hopper@gmail.com randyh@firecodeacademy.com whorner@woh.rr.com horstmand@mcohio.org shorvath002@neo.rr.com

HORVATH JR HOUPT Houston HOVANCSEK HOWARD HOWARD Hren Hribar HRICZIK Hubbard HUBBS HUBER HUBER HUELSMAN Hughes HUGHES HUGHES HUIET HULSEY HUMMEL HUMPHREY Hunt Hunter HUNZIKER HURLEY JR HURST Hussain HUSTON HUTSON ICE ILIANO INGRAM INMAN **IRVINE IRVINE JR IVENSO** IWAN lwenofu Jackson JACKSON Jacobs JACOBS **JACOBS JACOBSEN** JACQUES James **JAMES** 

٦

chorvath@northrandall.com rhoupt2000@yahoo.com jhouston@city.cleveland.oh.us hovancsekl@orangevillage.com brentdhoward@gmail.com markhoward607@gmail.com hren@cvelimited.com lhribar@sbcglobal.net j.hriczik@csuohio.edu dan.hubbard@uponor.com gary.hubbs@co.warren.oh.us chuber@medinaco.org chuber3@neo.rr.com fpdinc@gmail.com bhughes@cityofeuclid.com dcharchitect@sbcglobal.net darhughes@aol.com tomh@cityofmiddletown.org mike@lima.parable.com dkhum67@aol.com humphreyjohn@sbcglobal.net ajhunt@columbus.rr.com anthonyhunter@att.net ahoakwood@hotmail.com hoopsburley@gmail.com jhurst@cityofbrookpark.com nhussain@city.cleveland.oh.us mhuston@baymec.com shutson@sonitrolsw.com aaron.ice@cincinnati-oh.gov miliano@city.cleveland.oh.us dri53@aol.com michael.inman@hamilton-co.org insp1332@gmail.com dirvinejr@brigadefire.com manny.ivenso@cincinnati-oh.gov MIwan@city.cleveland.oh.us t\_iwenofu@yahoo.com drj@reagan.com bobjackson@windstream.net mjacobs0508@gmail.com inspector509@yahoo.com larry.jacobs@daytonohio.gov curt.jacobsen@nordyne.com anthony.jacques@com.state.oh.us micjam1965@yahoo.com terry.james@cincinnati-oh.gov

JAMISON JR **JANKOWSKI** JARUS Jenkins **JENKINS JENSEN JERN JEWETT JEWITT** JIANG JINDAL Johnson Joly Jones Jones Jones Jones JONES Josefiv Joseph JOSEPH Juby Jump JUSTICE KACZOR KAMINSKI KAMMER KAMPHAKE Kareha KARR KASUNICK KAUFMAN KAUH Kautz **KAVARAS KEARNS KEEN KELLEHER** 

\$

jackjamisonjr@comcast.net mjankowski@p-e-i.com tjarus@hotmail.com zachjenkins07@yahoo.com dewayne.jenkins@ketteringoh.org al.jensen@securitycorp.com jeff.jern@koorsen.com tim.jewett@westerville.org mark.jewitt@lakewoodoh.net ytjiang@com.state.oh.us sudhir.jindal@com.ohio.gov wayne.johnson@shakeronline.com eric49115@gmail.com gjohnson@ntainc.com corvette721946@hotmail.com lynn.johnson@hamilton-co.org johnsonralphy@yahoo.com prjaia@wowway.com 2specfad@gmail.com stephjohns@gmail.com bjohnson@co.delaware.oh.us martin.joly@vfpfire.us rijones@simplexgrinnell.com rjones@simplexgrinnell.com mejarch@gmail.com radco.pitt@gmail.com dmjmgt@yahoo.com shockelectric@cox.net alan.joseph@siemens.com josephbd1321@yahoo.com r-juby@sbcglobal.net bjump@fairfield-city.org mjustice4198@gmail.com plansappr@att.net pdkaminski@aol.com CAK1050@yahoo.com tvskamphake@fuse.net 3nid@sbcglobal.net mark@mgfiredesign.com jkasunick@city.cleveland.oh.us rkaufmans@aol.com jae.kauh@com.state.oh.us dkautz@cinci.rr.com kavaras.mark@att.net dkearns@fokeng.com chriskeen@woh.rr.com kellehermike1@gmail.com

**KELLER** Kellerman Kelley **KELLEY KELLEY** KELLY **KELLY** KENT Kepple KERST **KESSLER KESSLER KESSLER** Kidd Kidd **KIEFFER** KIGHT Kilbane KILEY Kilgore Jr. KING KING **KIRBY JR** KIRIN Kissner **KITCHEN** KITTRICK **KITZMILLER** Klakamp **KLEIN** Klenke **KLINAR KLOCINSKI** Klubnik KLUG Kneidl **KNIESS KNIGHT KNILANS** KNISLEY KNOX KOCAB Koch Jr. KOEHLER KOKEN Koller KONYS

.

darkeller@gmail.com deborah.kellerman@cincinnati-oh.gov jkelley8474@yahoo.com kevin.kelley@lakewoodoh.net bobkelley@triscontrols.com skelly@a1ssi.com markpkelly@bex.net GRKENT@CO.STARK.OH.US djkepple@gmail.com rak1776@earthlink.net kesslergl@butlercountyohio.org lkessler@tyco.com jkessler@zenithsystemsllc.com kidda@chsmco.com kiddg2@netzero.com lkieffer@mac.com kelly.kight@ci.chillicothe.oh.us jjk5755@hotmail.com dkiley@kaarchitecture.com dkilgore@telgian.com kk7105@sssnet.com gekmb@msn.com ferd.terri@gmail.com dkirin@cityofoberlin.com grkissner@gmail.com lkitchen99@aol.com alexplus5@aol.com rgkitz@yahoo.com bklakamp@sbcglobal.net jklein\_3@yahoo.com jklenke@clarkcountyohio.gov richard\_klinar@cityoflorain.org pklocin@co.lucas.oh.us john.klubnik@comunale.com paul.klug@cincinnati-oh.gov ronkneidl@fuse.net phillkniess@sbcglobal.net whk03@hotmail.com rknilans@clarkandpost.com jimbobalan@yahoo.com docdestructo@yahoo.com mkocab@willoughbyohio.com sideoutck@yahoo.com jamespaul.koehler@gmail.com smokinkoken@sbcglobal.net tskoller@columbus.gov pkonys@gmail.com

KOOGAN KORNICK KOSKI KOSSLER KOSSLER KOSZTALA KOSZTALA **KOVACS** KOWALCZYK KRAFT KRAMER Krill KRINER Krisjanis Krueger Ksiri Kueffner KULCHYTSKY **KULCSAR** KULCSAR **KUNZ** KURELIC KURTZ **KURZEN KUSS** KUZMA Kuznik Kuznik LABRIOLA LACAVA LACKEY JR LAHETTA LaLonde Lalvani LAMB LAMPING LANDEG Landis Langhorst LANZER LARGE LARKIN Larkins LASKO LATTARULO Lauer LAVALLE

¥

а.

koogan@buckeye-express.com jbkornick@aol.com ckoski@embarqmail.com randC816@gmail.com rkossler@simplexgrinnell.com sk9@fuse.net steve.kosztala@hamilton-co.org skovacs1503@comcast.net pkowalczyk@seuclid.com wkraft@massillonohio.com mkramer@ohiovalleyelectric.com thomasjknill@gmail.com hkriner@warren.org tom.krisjanis@gmail.com bill.krueger63@gmail.com aksiri@columbus.rr.com mike.kueffner@hamilton-co.org danylo@sbcglobal.net dkulcsar@brooklynohio.gov sel.kulcsar@fairviewpark.org tpk25@roadrunner.com 1buckeyetom@gmail.com inspectorkurtz@yahoo.com jbkurzen@msn.com jonaku@aol.com akuzma@co.greene.oh.us rkuznik@cityofbayvillage.com rkuznik17@gmail.com jlabriola@summitoh.net glml86@roadrunner.com eugene.lackey@cincinnati-oh.gov plahetta@cityofelyria.org llnddg@bex.net latika.lalvani@hamilton-co.org chrisl@concordfp.com clamping@clermontcountyohio.gov blandeg@lakecountyohio.gov llandis@ci.springfield.oh.us evanlanghorst@gmail.com stuart.lanzer@siemens.com klarge@aol.com dan@larkinelectric.com slarkins@city.cleveland.oh.us jlasko@com.state.oh.us william.lattarulo@hamilton-co.org bigtrain10@yahoo.com gene.lavalle@wowway.com

LAW Lawrence LAZAROWSKI LECHER Ledbetter Ledbetter Lee Leffel Leffingwell Lehman LEHMAN LEHMAN Leitner LEMAITRE LEMAITRE Lemanski LEMASTER Lemasters Jr. **LE-MON** Lenardos LENKO LENZ LEONARD LEOVIC Leslie LESZCZYNSKI LEWIS LEWIS LEWIS LEWIS Lewis Sr LIEBIG Limes Lindsay LINN LISTERMANN Little Little Littrell LIVECCHI LLOYD LOBOSCHEFSKI LOCKHORN LOCONTI LOGUE LOGUE JR Lonchar

wesleyelaw@gmail.com glawrence@simplexgrinnell.com G.Lazarowski@gmail.com rricklecher@aol.com bledbetter@ntainc.com ledbetter48@aol.com rlee@ntainc.com mleffel@garfieldhts.org dleffingwell@hardfire.com llehman@ntainc.com jlehman@bw.edu clehman@ntainc.com gary\_leitner@yahoo.com rlemaitre@oregonohio.org gracie-pie@bex.net lemanskijon@aol.com lemastere@mcohio.org bill.lemasters@hotmail.com cindyle-mon@neo.rr.com dlenardos@simplexgrinnell.com blenko@dublin.oh.us lenzgroup@gmail.com rleonard@ntainc.com dleovic@wickliffefire.org pjleslie@aol.com rlesczcynski@telgian.com glewis@shambaugh.com llewis.obcc@gmail.com dlewis@lifesafetyllc.com MLEWIS@STOW.OH.US jlewissr@sbcglobal.net hjliebig@aol.com dlimes0669@gmail.com mlindsay@ntainc.com linnwilliam@yahoo.com davel@concordfp.com mlittle@newtechlexington.com ricklittle1219@aol.com tlittrell70@gmail.com rlivecchi@netzero.net bill.lloyd@ci.fairborn.oh.us loboschefski-brandon@maumee.org dave.lockhorn@gmail.com rloconti@munibis.com mlogue@cityofgirard.com vloguejr@gmail.com lalonchar@gmail.com

Long LONG LONG LONG LOPER Lopez Loree LOTUS Loury-Blockum Loury-Blockum LOVELL Lu LUCKETT JR Lulla LUSTER SR LUSTER SR Lutz LYDA LYDAY LYNAM JR Lyons LYONS LYONS Macartney MacBride MacBride MACIASZEK MACK Mackless Maddamma MAGUIRE MAHAFFEY MAHONEY MAICHLE Maitino MALONEY MANDATO Mandic MANGAN MANGIO MANION MANION MANOS MANSOUR Marburger MAREK MARINUCCI

s,

¢

roderick.long@daytonohio.gov dlong004@insight.rr.com david.long@whitehall-oh.us mlong@washingtontwp.org eloper@dublin.oh.us llopez@city.cleveland.oh.us mattloree@yahoo.com lotuselectrix@yahoo.com gblockum@city.cleveland.oh.us leeloury@yahoo.com tlovell@nridgeville.org dweilu@ibts.org tom.luckett@ketteringoh.org fisheye1858@aol.com joseph.luster@cincinnati-oh.gov cincystop@yahoo.com brettlutz@mdia.us jerrylyda@aol.com dlyday@groveport.org rjaylynam@tpmechanical.com rlyons@cityofbayvillage.com mlfiredesign@gmail.com jlyons@hwceng.com macartney620@yahoo.com dona149@dom.com pmacbride@cityofwestlake.org jimmyemac@gmail.com jmack@ecohba.com j1060@roadrunner.com maddelectric@yahoo.com allan.maguire@comcast.net ronmahaffey@cinci.rr.com mjxmahoney@earthlink.net john.maichle@beachwoodohio.com paulmaitino@windstream.net tom.maloney@co.warren.oh.us mandatoj@lyndhurst-oh.com stevan2207@gmail.com manganj@mcohio.org amangio@yahoo.com tjmanion@columbus.gov memanion@columbus.gov moveup01@msn.com jmmansour@columbus.gov gmarburger@uprightsprinkler.com bn.marek@roadrunner.com ncx@msn.com

Marksberry Marksberry **MARRELLI JR** MARRIOTT MARSH MARSHALL MARSTILLER MARTI MARTIN MARTIN MARTIN MARTIN JR MASON MASSON MASTANDREA MASTRINO MATAN Mate Matheis Mathews Mathez MATLACK Matthews MAXWELL MAYNARD **MCBRIDE MCBRIDE** MCCARTHY MCCLINTOCK **MCCOLGAN McCORKENDALE** MCCOURT MCCOURT McCullah MCCUNE MCCURDY **MCDANIEL** MCDERMITT **McDermott MCDONOUGH MCDOUGAL McDowell** McElroy **MCERLANE MCFANN MCFARLAND** McGinley

÷

4

allenmarksberry@brownandbills.com allenmarksberry@att.net jmarrelli@mayfieldvillage.com kmarriott@city.cleveland.oh.us jmarsh56@cox.net acmarshall@msn.com team.marstil@yahoo.com marti@cityofmentor.com bobm675@fuse.net RMARTIN15@WOH.RR.COM kenmartinarchitect@netzero.net martinsprinklerdesign@yahoo.com rwmason@ashtabulacounty.us gmasson@cityofavon.com rmastandrea@solonohio.org cmastrino@woh.rr.com dbmatan@columbus.gov bmate@wideopenwest.com bikerbyjesus@gmail.com aray1230@gmail.com raym@firecontrolinc.net dmatlack@co.delaware.oh.us cmatt2@roadrunner.com troublmax@gmail.com walt@maynardent.com aweinspired777@gmail.com david.mcbride@whitehall-oh.us chris.mccarthy@fs.utc.com timmcclintock@gmail.com jwm2@hotmail.com ryan@americanfiretech.com mmccourt2@cox.net mmccourt@cityofbrookpark.com mikemccullah@yahoo.com russmccune@gmail.com mmccurdy@wowway.com jmcdaniel@telgian.com dmcdermitt@cityofgreenville.org mcdermott89@msn.com timothyj.mcdonough@gmail.com toddmcdougal@aol.com damcdowell@columbus.gov brian.mcelroy@hamilton-co.org wmcerlane@springdale.org searayone19@aol.com james.mcfarland@cincinnati-oh.gov mmcginley@city.cleveland.oh.us

MCGLOTHEN MCGURN III **MCINTYRE MCINTYRE** MCLAUGHLIN **MCLAUGHLIN** McMichael **MCMULDREN MCNAMARA** McNicholl **MCREYNOLDS** MEDANCIC MEDLEY MEEHAN MEEKER MEEKS Meiring Mejias-Yancey MEMORY MENKE MENN MENSTER MEOLA MERCER Merritt MERZ MESSING MESSNER Metrick METZ Meyer MEYER MEYER MEYER MEYER **MEYERS** MICK MIDGLEY MIELKE MIHALISIN Milinkovich Miller Miller Miller MILLER MILLER MILLER

david.mcglothen@ci.fairborn.oh.us McGurn.Joe@gmail.com rmcintyre@fairfieldtwp.org sighomeinc@aol.com rrmcl@ameritech.net cjmarct@yahoo.com jmcmichael@city.cleveland.oh.us rmcmuldren@medinaco.org casey.mcnamara@hamilton-co.org erinmcnicholl@brownandbills.com jmcreynolds1492@yahoo.com muci9119@gmail.com bmedley@columbus.rr.com tudorlawn@gmail.com rmeek2@hotmail.com doug.meeks@brewerfire.com glenntmeiring@gmail.com joanne.mejias@ketteringoh.org kvolt45@yahoo.com jmenke@a1ssi.com dmenn@eastlakeohio.com wmenster@comcast.net imeola@ctconsultants.com dmercer1@cinci.rr.com jimmerritt@competentelectrical.com mmerz@hilliardohio.gov cmessing@femoranalarm.com 326mmessner@lightstream.net metricksprinkler@yahoo.com rmetz@wcgov.org tmeyerarch@neo.rr.com chrism@concordfp.com gerald.meyer@cincinnati-oh.gov mmeyer@co.wood.oh.us mey chas2704@fuse.net joseph.meyers@lakewoodoh.net rmick@ci.springfield.oh.us kenneth1@aol.com terry@mwmielke.com mmihalisin@co.geauga.oh.us marcvich@zoominternet.net mike.miller@strongsville.org damiller1@sssnet.com gmiller@co.delaware.oh.us Randym@capfire.com kamlmm@netscape.net bobmiller2110@yahoo.com

MILLER MILLER Mindyas **MINIHAN** Minnick Miracle MISENKO Mitchell MITCHELL MITCHELL MITCHELL **MLYNAR** MODAFARI Moeller Molinski Molnar Monaco MONACO MONACO MONEA Mong Monroe MONTAN MONTGOMERY Moody Moore Moore MOORE MOORE MOORE MORAN MORELOCK Morgan MORO Morris MORRIS Morton MOSER Mould MUCCI MUELLER MULARONI MULLENS Mullins Mullins **Mullins** MUMFREY

٤

cmiller@cedcolumbusoh.com ididitnooneelse@yahoo.com jeff.mindyas@strongsville.org sean.minihan@cincinnati-oh.gov duder29@gmail.com customhi@aol.com jjmisenko@aol.com m.ronald@sbcglobal.net jmitchell@centuryfp.com jimm@ma-architects.com mitchell.8@osu.edu patronml@aol.com jmodafari@simplexgrinnell.com wmoeller@cityofstbernard.org m\_molinski@yahoo.com dmolnar1@hotmail.com mxm32167@yahoo.com sky88line@hotmail.com ninomonaco@sbcglobal.net tmonea@woosteroh.com cmong352@yahoo.com ljmrc29@yahoo.com nmontan@ecohba.com lamontgomery@columbus.gov ajmoody200@yahoo.com pmoore20@yahoo.com hardwkr17@yahoo.com tmoore1767@aol.com smoore019@columbus.rr.com sean.moore@hamilton-co.org kmoran256@aol.com reasemo@yahoo.com angela.morgan@daytonohio.gov mmoro001@ameritech.net pyro34230@gmail.com morris06@adelphia.net rdmorton\_77@yahoo.com jm26km24@roadrunner.com jmould@emdstudioinc.com statese@gmail.com jmueller@epssecurity.com mularoni@aol.com mmullens@hilliardohio.gov Imullins@selectsecurity.com E50213@aol.com dmullins0982@yahoo.com mmumfrey@inspectionbureau.com

Munz Murawski Jr MURPHY MURRAY Murray Jr MURRY MUSKA Myers **MYERS MYERS MYERS** NADEAU NADER NAGY JR NAKOUZI NAPLES NASH NAYDER NEAL **NEAL JR NEAL JR** Neargarder NEFF NEFF **NEIGHBOR** Nelson **NELSON** NEMCHIK NEMEC Neufer NEUMEYER Nice Nicholas **NICHOLAS** NICHOLSON NIED NIMON Nissel NITZSCHE Nochta NOE NOE NOLAND **NORRIS** NORTH NOTTER NOTTURNIANO

4

dmunz@ntainc.com benniemurawski@yahoo.com murphyfiredesign@yahoo.com lgmurray@netzero.com tjmurray73@yahoo.com robertm@securitec1.com davidw.muska@energizer.com matt.myers@fssi.us bdp@cityofstbernard.org jay.myers@fayette-co-oh.com Sharon.Myers@com.state.oh.us wcnadeau@yahoo.com joe.nader@kzf.com pnagy11@bex.net raficn@forestpark.org john.naples@com.state.oh.us emscoord@westcarrollton.org jnayder@ryanfp.com blneal@columbus.rr.com Inealabco@woh.rr.com billaur95@hotmail.com steve.neargarder@chapel.com dneff@koester-corp.com roger.neff@evendaleohio.org banvln@aol.com pnelsond@gmail.com rnelson@medinaco.org davidnemchik@msn.com steve200769@yahoo.com tanarch@cox.net neumeyerken@yahoo.com KNICE@SSSNET.COM jimn@firefoe.com earniesr@firefoe.com frankn@speelmanelectric.com walnutrdg@gmail.com jnimon@newalbanyohio.org dnissel@sbcglobal.net nitz424@gmail.com michelle.nochta@lakewoodoh.net cnoe@cityofsharonville.com claude.noe@gmail.com L7445@aol.com donn63@comcast.net kevinnorth@firedande.com hnotter@suite224.net tonynotturniano@gmail.com

NOVAK Nugent NUSKY Nussbaum OBERG OBERST **O'BRIAN** OCKINGTON **O'CONNELL** O'CONNELL **O'CONNORS O'CONNORS** O'Donnell OHLER Ohrstedt Oldham Oliver Oliver **OLIVER JR** OLIVER JR Olszewski Olszewski **OPATRNY** OPREA **O'REGAN** ORR OSGOOD OSPELT OSSEGE **OSTERDAY JR** OSTERTAG OTTO OYSTER PACHAN PACKARD PAHANISH PAIGE PAISLEY PALL Pallens Pannetti Parker PARKER PARKER Parks Parmelee Parmelee

•

.

nj8464@sbcglobal.net pnugent@rrcity.com nuskydl@butlercountyohio.org mnussbaum@woosteroh.com wireguy68@gmail.com koberst@integratedprotection.com reo'brian@columbus.gov tockington@frontier.com mvoconnell@sbcglobal.net moconnell@city.cleveland.oh.us boconno@live.com boconnors@elford.com jodonnell@cityofeuclid.com dohler@com.state.oh.us mohrstedt@sbcglobal.net bill@apfire.net mark.oliver@cincinnati-oh.gov olivers 1092@yahoo.com ned.oliver@koorsen.com joliver@city.cleveland.oh.us volszewski@co.union.oh.us vicolszewski@gmail.com carlopatrny@sbcglobal.net steve.oprea@strongsville.org pipewerx@yahoo.com thebear4945@yahoo.com rosgood@cityofsharonville.com ospelt@sbcglobal.net sossege@cinci.rr.com costerday@ntainc.com bobo2@aaahawk.com eric.otto@cincinnati-oh.gov royster@simplexgrinnell.com wmichael9@gmail.com spackard1@msn.com BPahanish@aol.com george.paige@ci.ravenna.oh.us kpaisley@hotmail.com richspall@aol.com joepallens@yahoo.com rapannetti@gmail.com bparker@co.champaign.oh.us jparker81546@aol.com kenparker@hlparker.com mikeparks58@icloud.com christopherparmelee@yahoo.com christopher.parmelee@lakewoodoh.net

PARROTT PARSLEY PARSONS PARSONS PARTEE Partridge Passarell Patchen Pate PATRICK PATRICK PATTERSON PATTERSON PATTON PATZKOWSKY PAULLIN Paulsen PAULSEN PAYNE PAYNE Pearce PECH Peltz Peniston PENNIX Peoples Perkins PERKINS Peterman PETERS PETERSON PETO Petrecca Petrecca PETRIE Petrou Petrucci PETTIT II PHILLIPS PHILLIPS PHILLIPS JR Phipps **PIASECKI JR** PIATAK Piatt PIATT PIAZZA

•

.

bparrott@columbus.rr.com parsley8993@msn.com larryeparsons65@yahoo.com larry@cityofspringboro.com lpartee@simplexgrinnell.com philip.partridge@cincinnati-oh.gov pbihomeimprovement@gmail.com bpatchen2000@yahoo.com dpate@mapleheightsohio.com duanekpatrick@gmail.com rlpelectric@aol.com mpatterson@live.com doug.patterson@atech-fire.com rp4290160@aol.com chpatzkowsky@msn.com devonddp@gmail.com jpaulsen@wittenberg.edu john@crwnfire.com jwpayne@earthlink.net talt4093@yahoo.com jpearce@superiorfire.net apech@arpheating.com peltzd@north-olmsted.com wpeniston@numail.org jerod.pennix@cantonohio.gov lpeoples@yahoo.com bperkins@simplexgrinnell.com aperkins@wtwp.com steven.peterman@cincinnati-oh.gov bpeters@preferredfire.com bipeters@co.trumbull.oh.us fpeto@att.net jpetrecca@jcparchitectural.com jpetrecca@zoominternet.net dpetrie@cebridge.net candtp@live.com petrucci@jacksonassociatesinc.com RPETTIT@CO.UNION.OH.US jeffphillips1@frontier.com william.phillips@com.state.oh.us dphillips@columbus.rr.com mphipps@delawareohio.net jerry@gfpadvantage.com jpiatak@sbcglobal.net mpiatt@integratedprotection.com mpiatt@fairfield-city.org donald53@juno.com

PIETRZAK PINKERMAN PINKNEY PINNEY PIRKO PISCOPO PITZER PITZER Pizzuti PLANT PLATTON PLAZA Plowman Pochatek POE POIRIER POIRIER POLAND POLING POLINSKI POLINSKI POLLEY Pollock POLLOCK JR Ponchak Pool Poorman PORTER POST POTTLITZER POTTS POULIMENOS POULOS Powell Powell Powers POWERS Prather Preston Price PRICE PRYKAN PRYOR Pugh Puhl Sr **Pullins** Purkey

¢

.

rdy2race02@woh.rr.com esinspector@ameritech.net pincdogg@sbcglobal.net jepinneys@gmail.com johnpirko@att.net rapiscopo@roadrunner.com gpitzer@clermontcountyohio.gov inspector510@yahoo.com gpizzuti@glennpizzutiarchitect.com hplant@uaschools.org mplatton@aol.com saul\_plaza@cityoflorain.org chadplowman@yahoo.com jpochatek@cityofberea.org gpoe@inspectionbureau.com m-epoirier@sbcglobal.net mpoirier@groveport.org icerun@woh.rr.com troy@affordablefirepro.com spolinski@cityofoberlin.com stevepolinski@adelphia.net pjpolley@earthlink.net myra.pollock@lakewoodoh.net pol8129@yahoo.com gponchak@ipsid.com timpool@sbcglobal.net jarrodp@xfireprotection.com weilerot@gmail.com op317@sbcglobal.net todd@vulcanfiresystems.com robpotts1@woh.rr.com j.poulimenos@femoran.com building@ci.sandusky.oh.us roger@summitsprinklerdesign.com kathy.powell@siemens.com rpowers@trarnold.com robert.powers@fayette-co-oh.com aepincohio@aol.com prestonatorx@gmail.com matt@capfire.com rprice14@columbus.rr.com lprykan@medinaco.org jpryor@lcounty.com megpugh@windstream.net gspbb@aol.com tp4plumbing@gmail.com npurkey@comcast.net

PUSKAS PUSKAS PUSTI Puterbaugh PUTNAM **PYERS PYERS** Quesenberry RABE RABER RADY Ramos RAMSER Ramsey Randles RANKIN Rao Rapnicki RASKIN RAUCH RAWSON REAPE REAPER Reed Reedv REEVES REFFITT REGAN Reich REID Reiff REINSMITH Renzulli Retherford Retherford RETTBERG REVILOCK REYNOLDS RHODES RHYM Riccardi Rice RICHARDS **RICHARDSON JR** RICHCREEK RICHHART Richter

4

•

larrypuskas@yahoo.com puskasl@lyndhurst-oh.com dpusti@mparc.com jsputerbaugh@juno.com kwputt@horizonview.net gpyers@columbus.gov georgepyers@yahoo.com jasonryan2778@yahoo.com rrabe@shambaugh.com john.raber@koorsen.com brady@painesville.com jramos@city.cleveland.oh.us smrandajr@yahoo.com rodney\_ramsey@att.net randlesc@hotmail.com carankin@columbus.gov lkss3941@aol.com mjrapnicki@sbcglobal.net stanraskin@aol.com crauch@washingtontwp.org jrawson@villageofnewalbany.org reapemechanical@hotmail.com wayne.reaper@gmail.com jreed@woosteroh.com pdq\_electrical\_contractors@yahoo.com MACREEVES52@CINCI.RR.COM mreffitt@co.logan.oh.us michael.regan@com.state.oh.us rayreich68@gmail.com rreid@co.union.oh.us casey.reiff@koorsen.com lreinsmith1@ci.wilmington.oh.us vrenzulli@simplexgrinnell.com retherfordmd@butlercountyohio.org MR05HD@aol.com inspector64@att.net gtrcom@ameritech.net tim.reynolds@beachwoodohio.com kevin.rhodes@cincinnati-oh.gov rrhym@sbcglobal.net rriccardi@city.cleveland.oh.us ricepaddy1@hotmail.com cathyjrich@aol.com jarichardson@columbus.gov LLRichcreek@muskingumcounty.org danrch@aol.com drichter@ntainc.com

RIEDE Riley RILEY Rinehart RISSER Ritchey Ritchey Rivera RIVERA ROAHRIG ROBBINS Roberts ROBERTS ROBERTS ROBERTS **ROBERTSON JR** ROBINSON ROBINSON ROBINSON Robison Robison RODIC RODIC Rodriguez ROE ROENIGK ROGERS ROGGE Romanyak Romp ROOSA Rosato ROSE ROSE Ross ROSS ROSS ROSS Roulette ROUSH ROYAL ROZANSKI Rubadue RUCKER RUDA RUDEY RUFFIN

•

+

bill@riceelectricalsales.com brock.riley25@yahoo.com gunneriley@gmail.com rinehartwl@yahoo.com stephen.risser@gmail.com djritchey@herculesfire.com fxritchey@columbus.gov cgcrivera@yahoo.com riverak@ci.hamilton.oh.us clroahrig@columbus.gov chrobbins@simplexgrinnell.com joe.roberts@cincinnati-oh.gov swilkie25@gmail.com proberts721@yahoo.com rroberts@portageco.com xtreamcomfortsystems@gmail.com ttlogann@gmail.com chrobinson 82@yahoo.com jeff.robinson@comunale.com rrobison@cityofdefiance.com rexandlori@aol.com bobrodic@mayfieldheights.org rrodic@twinsburg.oh.us jill.rodriguez@convergint.com roefire@insightbb.com baroenigk@msn.com grogers815@aol.com crogge@preferredfire.com andrew.romanyak@grunau.com jmromp@yahoo.com inspecluso851@yahoo.com lelandrosato@gmail.com denniswrose04@yahoo.com brian.rose@fairfield-city.org paul.ross@cincinnati-oh.gov santoro@one.net rossarch@msn.com metdross@hotmail.com japadyn@columbus.rr.com maroush@columbus.gov seroyal@currenthvac.com jrozanski@dublin.oh.us tim@rubadueconstruction.com jrucker3@woh.rr.com mjrgfps@yahoo.com mrudey@co.wood.oh.us jruffin@city.cleveland.oh.us

RUMMEL Rupert RUSANOWSKY Rush Rush RUSINOW Russ RUSSELL RUSSELL RUSSO RUST Ryan **RYAN** Sack Sadler SALATA SALLAZ SALMEN Salsbury SAMMON JR SAMPSEL SANDER Sanders SANKAL Santillo Santillo SANTORA Saunders Savasta Savasta Saxe Sayre SCHAEFER SCHAFER Schaffert **SCHARTON** SCHERRY **SCHIFERL** SCHILLING SCHMENK Schmersal Schmidt SCHMIDT SCHMIDT SCHMITT SCHMITZ SCHNEIDER

×

.

bob@rummelelectric.net rupertd@ci.hamilton.oh.us jerusanowsky@gmail.com jeffrush2112@gmail.com lwb704@hotmail.com chunkner@aol.com charles\_russ1964@yahoo.com dandrrussell@sbcglobal.net inspectorrussell@yahoo.com arusso3@oh.rr.com rj51rust@cinci.rr.com ronaldl.ryan@yahoo.com DSRYAN@FUSE.NET rsack@cityofwickliffe.com asadler@asebrook.com dukdipple@roadrunner.com charnsal@att.net steve.salmen@comunale.com joes03@att.net dsammon@centervilleohio.gov msampsel@co.union.oh.us tal61@aol.com jsanders@co.greene.oh.us sank2new@yahoo.com aeselectric@sbcglobal.net vsantillo@city.cleveland.oh.us rsantora@city.cleveland.oh.us radconc@rtmc.net msavasta@cityofpascagoula.com mgsavasta@msn.com dsaxe@macedonia.oh.us rjgard950@aol.com jcschaefer@columbus.gov ohbeemer2004@yahoo.com electricalservice162@gmail.com johnscharton@schartonelectric.net dscherry@herschmanarchitects.com dsqualityfire@embarqmail.com rschill@hughes.net wschmenk@att.net schmersal.sa@me.com randall\_ds@yahoo.com fsdinc@hotmail.com rschmidt@ovis.cc schmitt.ronald@gmail.com schmitzjsj@hotmail.com schneiderj@north-olmsted.com

**SCHOENER** SCHOLL SCHREINER SCHRIEWER **SCHROEDER** SCHUELER SCHULKE Schultz SCHULTZ SCHUMACHER SCHUTZ Schwonek **SCOLARO** Scott SCOTT SCRAGG Scudder SEBASTIAN SEGUIN SEIBERT SELLERS JR SELLERS JR SELLS SEMPSROTT SERINA SETTERS SEYBOLDT Seymore SHAFFER SHAFFER Shane SHANER SHARP SHARP Shaver SHAVER SHAW **SHAWVER** SHEETS SHELDON Shellev SHENOT Shepherd Shewfelt SHIELDS SHIELDS Shifflet

Ń

\*

steve.schoener@daytonohio.gov sscholl@fmsarchitects.com paulmschreiner@gmail.com richard.schriewer@cincinnati-oh.gov schroeder\_252@yahoo.com jeschueler@fuse.net wgschulke@woh.rr.com william.schultz@toledo.oh.gov gaschultz@columbus.gov william.l.schumacher@jci.com rjschutz@aol.com pauls@firefoe.com SCOLAROGERALD@YAHOO.COM stevescott723@gmail.com dascott@dependablefireprotection.com trscragg@newtechwv.com bscudder@telgian.com sebastianlr@msn.com jseguin@firelinesprinkler.com anseib@atmc.net ernie.sellers@cantonohio.gov sellersbuilding9@hotmail.com levisells@eckertfireprotection.com ron.sempsrott@co.warren.oh.us pserina@sbcglobal.net dts@dts-llc.com pseyboldt@sbcglobal.net cseymore@ntainc.com tshaffer@clarkcountyohio.gov donshaffer@woh.rr.com pshane@summitoh.net mshanermike@aol.com dsharp@avenfire.com wsharp@cincylifesafety.com shaver.20@sbcglobal.net mshaver@maverickfirepro.com rs60rs@buckeye-access.com dshawver@co.greene.oh.us larry.sheets@strongsville.org roundtowncbo@hotmail.com joshanddanashelley@gmail.com mshenot@summitoh.net shepherd@buckeye-express.com nshewfelt@telgian.com william\_shields@earthlink.net 806gtp@gmail.com tim@powerupohio.com

SHILLING Shirey Shockley SHOEMAKER SHORTER SHULL SHUMAKER Siebert Siegfried SIEHL SIERKS SIEVERS SILLA SILVER SIMMONS SIMMONS SIMMONS SIMON SIMONS SINCLAIR SINCLAIR SINES III SINGLETON SIPKA Sisia Sisia SIVINSKI **SKAPIN** SKELDON SKVASIK **SLIWINSKI** Slota Slota SMEREK SMEREK Smith SMITH

4

.

shilling@toast.net danshirey575@gmail.com mshockley@city.cleveland.oh.us tshoe140@horizonview.net estringshorter@yahoo.com bshull@brigadefire.net deshumaker@att.net m\_siebert@att.net rsiegfried@rsaarchitects.com siehl@englewood.oh.us rsierks@trarnold.com ssievers1@hotmail.com fsilla@massillonohio.com charlesshelley@aol.com dsimmons@karpinskieng.com knsimmons216@roadrunner.com wj.simmons@earthlink.net martinsimon@sprintmail.com wsimons@eriecohealthohio.org msinclair@city.cleveland.oh.us ksinclair@integratedprotection.com rsines@simplexgrinnell.com jsingleton@westlickingfire.org jksipka@neo.rr.com tyler@pdssystems.com philip@pdssystems.com dsivinski@uaoh.net jskapin@aol.com sskeldon@wtwp.com mjskvasik@gmail.com bisliwin@co.trumbull.oh.us fcslota@hotmail.com fslota@ci.reynoldsburg.oh.us smerekroseann@yahoo.com dsmerek@northroyalton.org jsmith@essexohio.com c.smith@siemens.com bjsmith@woh.rr.com 65cls@columbus.rr.com csmith2@city.cleveland.oh.us rick.smith@comunale.com rsmith@centralfp.com smithgrs@fuse.net smithcandrew@aol.com greg.smith@daytonohio.gov smithrd@ci.hamilton.oh.us tsmith@coz.org

SMITH SMITH SMITH SMITH SMITH SMYCZEK SMYTHE Snider SNODGRASS Snyderburn Sobotka SOCOLOFF Sonenstein SOULES Sowers Spada Sparks Spayth **SPEARS** SPENCER SPEWEIKE Sphon SPIERS Spies SPILLE SPIVEY **SPLAWN** SPRAGG Spruill Jr SPRY SPRY SPURLING SPURLING SPURLING STACEY STACY STADLER STADLER Stadtman Stahl Stallman II Stalnaker STALTER Stanback Standering Stanich STANLEY

٠

.

jps4444@gmail.com smith1282@roadrunner.com geojsmith@windstream.net jasmith7520@yahoo.com niceter4@grandecom.net ongeeson@att.net rsmythe@ohioelectricservices.com justin.snider@jesshoward.com PEDBZI@westcarrollton.org msnyderb04@hughes.net tsobotka@cityofelyria.org shelnan1@roadrunner.com howardsonenstein@aol.com rsoules@neo.rr.com jsowers@miamicountyohio.gov dwsrt74@aol.com jpsparkscompany@yahoo.com tspayth@co.madison.oh.us tearle.spears@toledo.oh.gov spncr497@aol.com speweike@msn.com northcoastatv@gmail.com espiers@co.delaware.oh.us espies@zoomtown.com kjspille@aol.com sspydux@aol.com shannon.splawn@jacobs.com mspragg437@comcast.net jcspruill@columbus.gov michael.spry@cincinnati-oh.gov mtspry@fuse.net spurjp@co.warren.oh.us crazyones@zoomtown.com dspurling@clermontcountyohio.gov jstaceyinspector@yahoo.com mstacy1@columbus.rr.com robert\_g\_stadler@keybank.com stadra@co.warren.oh.us rstadtman@fire101.net jacksue\_1981@yahoo.com towncraftbuilders@gmail.com rewire70@gmail.com donalde.stalter@energizer.com fortypoint2@yahoo.com standering@aol.com stanich.chris@gmail.com gws@wiginton.net

Starks States Steele STEELE **STEHLIN** Steidel Steigerwald Steiner STEINGASSER STELZER **STEMM STEPPENBACKER** Stevens Stevens **STEWART** STEWART STEWART Stewart III STIEB STIGALT STIGALT Stillion STITT STITZEL STOCKSDALE STOCKY STOECKEL STOKER STOLL Stoltz Stone Stone STONE STONER Storey **STOROZUK** STOUFFER Stover Straub Streng **STRICHKO** STRICKLAND STROME Strong STROUD STROUT Studer

duane.starks@cincinnati-oh.gov stateselectric@outlook.com burlsteele@buckeye-express.com and rew.steele@daytonohio.gov mstehlin@gmail.com yarn2crochet@yahoo.com petesteigerwald@aol.com electric65@ymail.com sarahjo4@comcast.net rstelzer@insight.rr.com DCCS@COZ.ORG dsteppenbacker@twinsburg.oh.us jstevens@columbuspowerllc.com dstev111@aol.com lstewart@brigadefire.net phil\_stewart1224@yahoo.com Petegstewart@gmail.com bstewart742@yahoo.com bobstieb@gmail.com jstigalt@eastlakeohio.com jstigalt@aol.com cs8485@gmail.com tbr1563@aol.com dstitzel@vandaliaohio.org jestocksdale@columbus.gov mstocky9@gmail.com stoeckel@eckertfireprotection.com gerry@stoker.org tad.stoll@cityofspringboro.com bstoltz1@hotmail.com mstonecaps@yahoo.com fyerguy1998@sbcglobal.net jstone11@neo.rr.com sues@wolverinefp.com cincystitch@hotmail.com mstrohz51@gmail.com ilovemyzee@yahoo.com john.stover@continental-fire.com lori.straub@toledo.oh.gov aaronstreng@zoominternet.net dstrichko@munibis.com durango105@sbcglobal.net bob.strome@cityofmiamisburg.org jstrong@ntainc.com dhoodman43@yahoo.com richard.strout@siemens.com studers4@yahoo.com

STUDER **STUMP STYBORSKI** Sugar SUGAR SUGAR Sullivan Sullivan **SURELLA** SUSAK SUSONG Sutphin **SWAN** SWARTZ SWEENEY SWEIGARD SWICK Switzer **SWOPE** SWYMELER **SYLVESTER** SZKUDLAREK Taborn Tadych TALBOTT Tanner TANSY TAPPER TARKEY TARVIN TATRO Taylor TEAL TEGELER Temkiewicz TEMME **TENSI** 

\$

tastuder@hotmail.com sstumpnsf@hotmail.com kcajski@ameritech.net asugar@city.cleveland.oh.us elvissugar@hotmail.com esugar@city.cleveland.oh.us msul@ma.rr.com jsullivan518@yahoo.com surella@wowway.com meighansmimi@aol.com rsusong@woh.rr.com chazmsut@bex.net swanstef@bex.net klswartz@hotmail.com michael.sweeney@cincinnati-oh.gov dsweigard@wcgov.org edwardhswick@sbcglobal.net therentedpencil@roadrunner.com gswope@co.wood.oh.us todd.swymeler@gmail.com jsylves845@aol.com ellswortheugene@hotmail.com jeff.taborn@ci.chillicothe.oh.us christopher@architects-llc.cc rstalbott@brewersprinkler.com tanner.jr@fuse.net btansy@dalmatianfire.net wjtapper@hotmail.com tarkey@sbcglobal.net tarvinelectric@zoomtown.com ldtatro@muskingumcounty.org ltaylor@a1ssi.com dtaylor@bass-security.com co8fireman@yahoo.com brock.taylor@daytonohio.gov tytaylor@hotmail.com twtaylor@columbus.gov rtaylor@city.cleveland.oh.us al.taylor@cincinnati-oh.gov taylorbros@att.net kmjt2000@cox.net jtaylor@painesville.com phillip.teal@com.state.oh.us btegeler@ntainc.com tooski@gmail.com ltem32@yahoo.com davetensi@yahoo.com

TEPE TERRACE TESAR Thom Thomas Thomas Thomas Thomas Thomas THOMAS Thomason III Thompson THOMPSON THOMPSON THOMPSON THOMPSON THOMPSON THOMPSON THOMPSON THORNTON TILLER TIPTON TIROLY TODD TOMPOS TOMPOS TOOLE **TORDIFF JR** TOTH TOY JR TREBISKY Trent TRENTMAN TRIBOLET Trill Tschida TUCKER **TUCK-MACALLA** TUDOR TUNISON TURCHANIK TURNER TURNER TURNER TURNER TUSING TUTTLE

拖

w

darlenetepe@gmail.com terrace@englewood.oh.us timothytesar@mayfieldheights.org sthom@ecghd.org mthomas@progressivemech.com ddt@columbus.rr.com ohioarchitect@gmail.com jt92577@yahoo.com bradenthomas1@gmail.com rthomas3801@gmail.com thomasonm@zoominternet.net rethompson1961@gmail.com mttdesigner@comcast.net tfpdllc@gmail.com ncfire@earthlink.net Pappaw0057@yahoo.com jntcrafts@msn.com mthomp3@frontier.com lynn.thompson@toledo.oh.gov pthornton@sixmoae.com tillerd@uakron.edu onedogand3cats@aol.com atiroly@atcofirepro.com inspector521@yahoo.com dtompos@ntainc.com gtompos@ntainc.com keywest57@frontier.com rftordiff@hotmail.com nicetdesigner@gmail.com evtoy612@zoominternet.net dtrebisky@simplexgrinnell.com n2\_actn@yahoo.com strentman@eckertfireprotection.com ctribolet@frontier.com bngplumbing@yahoo.com davidt@firepros.com jtucker4@frontier.com ericmacalla@yahoo.com gatudor@columbus.gov tunisonj@mcohio.org mturchanik@aol.com maturner50@cinci.rr.com gturner7\_23@yahoo.com turner1750@comcast.net lcturner44@aol.com ron@rontusing.com larryt@cityofmiddletown.org

TYLER UBELHOR ULRICH ULRICH UNGAR **UNGERER** URANKAR **UROSEVA** UTER III UTIS Vail Valerius VAN GORDER VANBENSCHOTEN VANCE Vance Jr. Vandergrift Vanderman VANHART VANOVER VANTINE VAUGHN SR Velez Velez VELLIQUETTE VENDELAND VERBIAR Veronie VESELSKY VICARS VIGORITO VILKAS VINAY VINCENT III VIOLA Virosteck VITTARDI VOGEL VOGEL VOLLE VON DUHN **VON DUHN** Vorhees VOROS VUKETICH WADE WAGENKNECHT

\$

jtyler@dublin.oh.us du374@aol.com bruce@jacksonsprinkler.com bulrich@co.lucas.oh.us cungar@columbus.rr.com gary@technicondesigngroup.com jurankar@sbcglobal.net juroseva@sbcglobal.net uterplumbing2007@yahoo.com innau@sbcglobal.net pvail@ci.lancaster.oh.us tvalerius23@aol.com tvangorder@silcofs.com phil.vanbenschoten@hamilton-co.org vancecapt15@midohio.twcbc.com bobvance@brownandbills.com d.vand@yahoo.com tvanderman38@fuse.net vanhartengr@yahoo.com tomvanover1@gmail.com chuck.vantine@honeywell.com rvaughn@orrprotection.com evelez@city.cleveland.oh.us davidvelezelectrical@yahoo.com denvelliquette@rocketmail.com normanvendeland@yahoo.com j.verbiar@yahoo.com gveronie@bex.net dveselsky@city.cleveland.oh.us wcvicars@frontier.com tvigorito@thecityofniles.com robert.vilkas@hotmail.com mvinay@cityofbarberton.com wcviii@yahoo.com mark@sasipmvarchitect.com tteck67@yahoo.com blueboy7661@yahoo.com steevo6161@yahoo.com svogel@medinaoh.org dvolle@cityofavon.com mike@bassettsprinkler.com mikevonduhn@hotmail.com karen\_e\_2002@yahoo.com jvoros@nridgeville.org ronaldvuke@aol.com clwade@columbus.gov kewagenknecht@columbus.gov

Wagner WAGNER Wakeley WAKELEY WALDEN Walker WALKER WALKER WALKER JR WALKER JR WALSH WALSH WALSH Walters WALTERS WALTERS WALTERS WALTERS WALTON JR WAMBO Ward WARD Warner Warnock WASKIELIS WASSERMAN Watercutter WATKINS WATSON WAYMER Webber Weber WEBER WEHRKAMP WEIL Weishaupt WEISSMANN WEIZER Welch WELCH WELKER Wells WELLS WELLS WELTNER WENECK WENNER

4

\$

robert.wagner@cincinnati-oh.gov markwagner@poulosarchitects.com bwakeley@wcgov.org twakeley@co.union.oh.us katwalden@live.com dwalker1340@yahoo.com walkerbtw@yahoo.com napskarenwalker@yahoo.com DWalker@northcantonohio.com heywalk2000@yahoo.com tim@bci-tech.com mwalsh@colerain.org epayer@eastlakeohio.com swalt007@gmail.com dynatimhd@yahoo.com mwfpd7@yahoo.com hwalters25@gmail.com inspector514@yahoo.com jwalton@trarnold.com patrick.wambo@sbcglobal.net michaelward9744@sbcglobal.net rlw8169@yahoo.com jwarner@delawareohio.net twarnock@lcounty.com robert.waskielis@comunale.com gwasserman@ci.oregon.oh.us mkwatercutter@myfrontiermail.com troywatkins1111@gmail.com mwatson@akronohio.gov jwaymer@roadrunner.com radco@bnin.net rgweber159j@aol.com frankweber@oh.rr.com mwehrkamp@wehrkampengr.com eweil@zoomtown.com ericweishaupt@gmail.com tweissmann1@fuse.net res727@att.net bobby.welch@tpmechanical.com bwelch@tyco.com terry.welker@ketteringoh.org rwells@city.cleveland.oh.us 2mjwells@gmail.com dwells@richlandhealth.org jweltner@simplexgrinnell.com dennis@weneck.com neal.wenner@comunale.com

WENZEL WENZLER WERTZ WERVEY WEST WESTBROOK Westcott III WESTFALL Weston Westphal WETTRICK WETZEL WEYGANDT Wheeler Whewell White WHITE WHITE WHITE WHITE WHOLF WHOLF Wiblin WICKMAN WICKMAN Widlak WIELAND WIEMAN WIESMAN WILCOX JR WILDER WILDERMUTH WILES Wilev WILHELM WILHELM Wilkin Williams Williams WILLIAMS WILLIAMS WILLIAMS WILLIAMS WILLMAN WILLS WILMOT WILSON

4

dwenzel@cityofpowell.us twenzler@moraineoh.org kathyawertz@yahoo.com billwervey@adelphia.net mwest@dalmatianfire.net rwestbrook@wtwp.com bighouse@bex.net rkitect76@sssnet.com eric@firefoe.com dwestphal55@yahoo.com rwet314@sbcglobal.net swetzel779@aol.com john.weygandt@comunale.com jwheeler@3s-incorporated.com awhewell@silcofireprotection.com white@englewood.oh.us inspectormw@aol.com bwhite@milfordohio.org michael.s.white@siemens.com inspectorfw@aol.com wholf-bruce@maumee.org bwholfman@yahoo.com builddept@hotmail.com mawickman@aol.com jwickman@msn.com gwidlak@att.net rwieland@fieldsfire.com tsfadscott@aim.com wiesman@fuse.net rtwilcox@cinci.rr.com rwilder@cityofwestlake.org mhwildermuth@oh.rr.com greg.wiles@cincinnati-oh.gov wilos@hotmail.com garylwilhelm@aol.com gary@wristengineering.com twilkin@hillsboroohio.net jwilliams@mov-is.com lwilliams22@city.cleveland.oh.us blwilliams@ashtabulacounty.us twilliams@genesishcs.org willifam@wcoil.com rjwilliams@columbus.gov 131313@firehousemail.com mrwills@columbus.gov danielwilmot@earthlink.net rwilson@firematic.comcastbiz.net

WILSON WILSON WILSON WILSON WINKEL WINN Wise WISE Wissinger **WOJKOWSKI JR** WOJTILA WOLFE WOLFF WOLNY WOLNY WONG WOOD Woodarski WOOLACE Woolum WORKLEY WORKMAN Wray WRIGHT WRIGHT WURTH WYCKOFF Wygonski Jr Wyss Jr Wyss Jr Yarrow YODER YOST III Young YOUNG YOUNG YUPA Yutzy ZAHN ZALA Zavatchen ZBASNIK ZELEZNIKAR ZELLE JR ZIEGLER ZIMMER II Zimmerman

Å

polkaplayer9@gmail.com kwilson@cityofpowell.us ctwilson@muskingumcounty.org pwilson@com.state.oh.us winkelectric@hotmail.com swinn@miamicountyohio.gov tom.wise@cincinnati-oh.gov lonnie.wise@cincinnati-oh.gov dwissinger9@wowway.com joewojkowski@yahoo.com fire5cpa@hotmail.com wwolfe3120@aol.com norma.wolff@cityofmiamisburg.org larry@rlawconstruction.com kellie@rlawconstruction.com gwong@cityofsharonville.com bobbye.wood@cincinnati-oh.gov woodarski@zoominternet.net amber@woolace.com rwoolum@earthlin.net tkworkley@yahoo.com joe\_w31@yahoo.com mwray1444@hotmail.com rochellew@rwjsprinkler.com lloyd.wright@vfpfire.us pfwurth@bex.net wyckoffm@mcohio.org mrfixit4u@cox.net fdenningwyss@yahoo.com fredwyss@willoughbyhills-oh.gov jyarrow@garberconnect.com dyoder@brigadefire.com nyost@trarnold.com ryoung@cityofbayvillage.com watchman1@roadrunner.com myoung@completegeneral.com misterbob2462@hotmail.com yutzyheat@gmail.com ddzahn@gmail.com lzala@roadrunner.com joemzav@yahoo.com jzbasnik@neo.rr.com frankzeleznikar@yahoo.com chukzel@hotmail.com zieglerjamesp@gmail.com skip.zimmer@cincinnati-oh.gov

# tzimmerman@napoleonohio.com

ZIMMERMAN ZIMMERMAN ZINN ZOFKO ZOMBEK ZRONEK Zwahlen **ZYTOWIECKI JR** Alliance Amherst Amherst Township Anna **Arlington Heights** Ashland Ashville Aurora Aurora Avon Avon Lake Barberton Beachwood Bedford Berea Bexley **Blendon Township** Bratenahl Brecksville Brecksville Brecksville **Broadview Heights Brook Park Brooklyn Heights** Brookville **Brown County Butler County Canal Fulton Canal Winchester** Canton Centerville **Champaign County** Cheviot Circleville Cleveland Cleveland **Cleveland Heights Clinton County** Crestline

æ

azimmerman@shambaugh.com jaz@hurontwp.org markzinn@att.net dezcon@penn.com tzombek@aol.com ZRONEK@ZOOMINTERNET.NET brettzwahlen@sbcglobal.net rzytowiecki@wayneoh.org eng.bld.zon@allianceoh.gov building@amherstohio.org buildinginspector007@msn.com rbowman@miamicountyohio.gov syoung@natinspect.com kremser.shane@ashland-ohio.com agrube@ashvilleohio.gov januskad@auroraoh.com crainec@auroraoh.com bschumacher@cityofavon.com tcarleton@avonlake.org lhowe@cityofbarberton.com building@beachwoodohio.com cbeverly@bedfordoh.gov buildingdept@cityofberea.org rshetler@bexley.org cla@asebrook.com building@bratenahl.org nwerner@brecksville.oh.us spackard@brecksville.oh.us ssynek@brecksville.oh.us rwestfall@broadview-heights.org buildingdept@cityofbrookpark.com ssocoloff@brooklynhts.org plans@natinspect.com building@browncountyohio.gov dickardda@butlercountyohio.org tward@massillonohio.com gwebb@canalwinchesterohio.gov david.molnar@cantonohio.gov buildinginspection@centervilleohio.gov prittenhouse@co.champaign.oh.us wls@zoomtown.com dmorrow@pickaway.org tvanover@city.cleveland.oh.us dcooper@city.cleveland.oh.us rferritto@clvhts.com clintoncobuildingzoning@yahoo.com mmilliron@crestlineoh.com

**Cuyahoga Heights** Dayton Defiance Doylestown Dublin East Cleveland East Cleveland Eaton Euclid Euclid Evendale Fairfax Fairfield Fairlawn Fairview Park **Fairview Park** Gahanna Galion **Garfield Heights** Girard Glenwillow Grafton **Grandview Heights** Greenfield Groveport Hamilton County Hartville **Highland Hills** Hilliard Independence Independence Kent Kent Lake County Lakewood Lebanon Lithopolis London Lorain Louisville Louisville Loveland Lucas County Lyndhurst Madison County Mahoning County Mansfield

₽

w.heinzman@cuyahogaheights.com michael.cromartie@daytonohio.gov cseimet@cityofdefiance.com jgardner@doylestown.com dfite@dublin.oh.us swallace@eastcleveland.org tbumbalis@eastcleveland.org ebd@cityofeaton.org lbock@cityofeuclid.com buildingdept@munibis.com donald.mercer@evendaleohio.org jhester@fairfaxoh.org rick1@one.net randlesc@ci.fairlawn.oh.us leanne.fuller@fairviewpark.org bldgcom@fairviewpark.org building@gahanna.gov bobjohnston@ci.galion.oh.us wwervey@garfieldhts.org petecgirardcity@hotmail.com mskvasik@glenwillow-oh.gov jklein@villageofgrafton.org jkuss@grandviewheights.org davidduckworth@rosscountyohio.gov smoore@groveport.org joy.peak@hamilton-co.org office@hartvilleoh.com bldg@vhhohio.org jamicon@hilliardohio.gov gerom@independenceohio.org gerom@independence.org brownk@kent-ohio.org nitzsche@kent-ohio.org jflanik@lakecountyohio.org michael.molinski@lakewoodoh.net anna.helton@co.warren.oh.us mike@asebrook.com vbenedetti@ci.london.oh.us heather\_graves@cityoflorain.org citymanager@louisvilleohio.org planningdirector@louisvilleohio.org eparker@lovelandoh.com dsmith@co.lucas.oh.us manfredis@lyndhurst-oh.com dhughes@co.madison.oh.us aferns@mahoningcountyoh.gov lprice@ci.mansfield.oh.us

Mansfield Mariemont Marietta Mason Mayfield Mayfield Heights Medina Miami County Moreland Hills Mount Healthy **Muskingum County** New Albany Niles North Canton North Olmsted North Royalton Norwood Norwood Oberlin Obetz **Olmsted Falls Olmsted Township** Oregon Ottawa County Parma Parma Heights Pepper Pike **Perkins Township** Perkins Township Pickerington Portsmouth Reminderville **Richland County Rocky River Ross County** Sandusky Seven Hills Shaker Heights Sheffield Village South Amherst South Bloomfield South Russell Springdale Springfield Stark County Steubenville Streetsboro

8

grice@ci.mansfield.oh.us bldgdept@mariemont.org conniejh@wcgov.org gnicholls@masonoh.org dgarbo@mayfieldvillage.com tomjamieson@mayfieldheights.org tmorris@medinaoh.org nharleman@miamicountyohio.gov villagehall@morelandhills.com rosgood@mthealthy.org jetrout@muskingumcounty.org tschaffner@villageofnewalbany.org csmeltzer@thecityofniles.com jfitch@northcantonohio.com grusenmeyerj@north-olmsted.com dkulchytsky@northroyalton.org nbd@norwood-ohio.com gstoker@norwood-ohio.com sphillips@cityofoberlin.com llewis@obetz.oh.us building@olmstedfalls.org ttabor@olmstedtownship.org jgilmore@ci.oregon.oh.us dbarnes@co.ottawa.oh.us building@cityofparma-oh.gov building@parmaheightsoh.gov building@pepperpike.org jcurtis@perkinstownship.com beckys@perkinstownship.com swhittington@pickerington.net pgilliland2@portsmouthoh.org remindervillebuildingofficial@gmail.com srisser@richlandcountyoh.us rockyriver@rrcity.com rosscobd@bright.net mstookey@ci.sandusky.oh.us building@sevenhillsohio.org heinz.akers@shakeronline.com lesliee@sheffieldvillage.com clerk@neohio.twcbc.com southbloomfield@hotmail.com building@southrussell.com building@springdale.org jtuttle@ci.springfield.oh.us srbergener@co.stark.oh.us cdp@cityofsteubenville.us chaylett@cityofstreetsboro.com

Strongsville Summit County **Terrace** Park Trenton Union **University Heights** Valley View Vandalia Vermilion Violet Township Warren Warrensville Heights Washington County Washington Court House Wauseon Wauseon Wayne County Wellington West Carrollton Westerville Westlake Willard Willoughby Willoughby Hills Wilmington Woodlawn Worthington Wyoming Zanesville Alliance to Save Energy (Maria Ellingson) American Council of Engineering Companies of Ohio American Institute of Architects American Wood Council (James Smith) Architectural Products Resource (Alicia Holloway) Baldwin, Mike Bartley, Ronald K. Berardi and Partners (Chris Bruzzese) Berardi and Partners (Larry Brehm) Buckeye Power (Teresa Staats) **Building Code Compliance Building Code Compliance** Building Industry Association of Central Ohio Building Owners and Managers Association Campbell Equipment (Chad Dupler) Clearcreek Fire District (Chris Vecchi) Construction Specifications Institute (Rich Pontius) Cornwell, Paul (Architect)

÷

#

kathy.zamrzla@strongsville.org kbrown@summitoh.net jhester@terracepark.org rob@cityoftrenton.com ggreen@ci.union.oh.us building@universityheights.com lellis@valleyview.net tbaker@ci.vandalia.oh.us bobkurtz@vermilion.net don.day@violet.oh.us inspect1@warren.org mlester@cityofwarrensville.com cwilson@wcgov.org rbryant@cityofwch.com thomas.hall@cityofwauseon.com trudi.mahnke@cityofwauseon.com vwidmer@wayneoh.org skyfox44035@yahoo.com Rsnodgrass@westcarrollton.org edward.ungar@westerville.org lschaefer@cityofwestlake.org manager@willard-oh.com dkeller@willoughbyohio.com building@willoughbyhills-oh.gov mhorner@ci.wilmington.oh.us bknight@beautifulwoodlawn.us dphillips@ci.worthington.oh.us tvanderman@wyomingohio.gov buildingcode@coz.org mellingson@ase.org acec@acec.org infocentral@aia.org jsmith@awc.org alicia@apresource.us.com mikebaldwin@metlabs.com bartleyrk@att.net cbruzzese@berardipartners.com lbrehm@berardipartners.com tstaats@buckeyepower.com geaton@com.state.oh.us yjiang@com.state.oh.us jim@biahomebuilders.com sesterly@bomacleveland.org chadd@campbellequipment.com chris.vecchi@clearcreektownship.com rpontius@thomas-marker.com pvcornwell@yahoo.com

**CR** Architecture and Design j.berry@cr-architects.com Cuyahoga Falls (Tim Mier) miertp@cityofcf.com Dewi, Shirley shirley.dewi@iapmort.org Driscoll, Liana neffcoinc@aol.com Duecker, Bill William.duecker@resservices.com Eisenhart, Greg plumber@spii.net Episcopo, Paul paul@vipplumbing.com Erb, Ron rerb@smeinc.com Federal Emergency Management Agency fema-correspondence-unit@dhs.gov Fetz, Rob rfetz@ctcn.net Finley, Tony tonyf@inverness-usa.com Frederick, Karl kfred1125@hotmail.com Freund, Freeze, and Arnold (John Witherspoon) jwitherspoon@ffalaw.com **Gieseke Rosenthal Architecture** rosenthal@grad.cc Gieseke Rosenthal Architecture (Joseph Moss) moss@grad.cc Gross Builders (Rick Porter) Rick@Grossbuilders.com Grundahl, Kirk kgrundahl@qualtim.com Haberek, Jim office@haberek.com Heger, Jeff jeff@nixcoplumbing.com Heritage Ohio jbarrett@heritageohio.org Herman Gibans Fodor Architects afodor@hgfarchitects.com Hirt, Bill bhirt@anab-aclass.org Home Builders Association of Greater Cincinnati (Dan Dreddressman@cincybuilders.com Home Builders Association of Greater Cincinnati (Greg Haghand@westernhomesllc.com Hostetler Builders (Susanna Strauss) susannakstrauss@aol.com IAEI Western Reserve Division (Joe Cenzori) ampy2000@sbcglobal.net IAF secretary1@iaf.nu Image Line Design (John Bacik) imageline@sbcglobal.net Innovative Engineering Group (Behzad Vedaie) bvedaie@iegi.com Insurance Services Offices csfeedback@iso.com International Accreditation Service hbrewer@iasonline.org International Accreditation Service smccracken@iasonline.org International Accreditation Service rcoiner@iasonline.org International Accreditation Service pmccullen@iasonline.org International Accreditation Service msabaratnam@iasonline.org International Accreditation Service rnathan@iccsafe.org International Accreditation Service cramani@iccsafe.org International Association of Electrical Inspectors Ohio Chatimmcclintock@gmail.com International Brotherhood of Electrical Workers pwilliams@ibew540.org International Code Council croblee@iccsafe.org International Code Council Evaluation Services smoinian@iccsafe.org International Code Council Evaluation Services gnichols@iccsafe.org Intertek michael.beaton@intertek.com Johns Manville jeannette.voelzke@jm.com Johnson, Jarrod jjohnson@qai.org Jonhenry, Nathanael nathanael.jonhenry@squiresanders.com **K&A** Architecture dkiley@kaarchitecture.com

Kale, Justin (Efficiency Smart) Kale, Justin (VEIC) Koken, Michael Kennedy, Tom Luketic, Tony McGovern, Kevin Mechanical Contractors Association of Central Ohio Menard's Sidney (Jody Harris) Midwest Energy Alliance Miller Coors (John Wells) Miller Coors (Mark Koch) **Miller Engineering** MKC Associates (Rachel Beecher) Motter & Meadow Architects **Motter & Meadow Architects** National Council of Architectural Registration Boards National Fire Protection Association National Fire Sprinkler Association National Heating (Steve Lynch) National Institute of Building Sciences National Institute of Standards and Technology Nationwide Insurance Nieman, Brian No-Burn (Lindsay Lenze) NTA (Ryan Knowles) NVR/Ryan Homes (John Hedden) Oak Group Oberst, Ken Ohio Association of Consulting Engineers Ohio Association of Plumbing Inspectors **Ohio Association of Realtors** Ohio Building Officials Association Ohio Construction Industry Licencing Board Ohio Construction Industry Licencing Board Ohio Department of Commerce Ohio Department of Commerce Ohio Department of Commerce **Ohio Department of Commerce** Ohio Department of Commerce Ohio Department of Commerce Ohio Department of Health Ohio Department of Health Ohio Fire Chiefs Association Ohio Home Builders Association **Ohio Hospital Association** Ohio Manufactured Homes Association

÷

jkale@efficiencysmart.org jkale@veic.org smokinkoken@sbcglobal.net tknorwoodian@msn.com archluketic@sbcglobal.net kevin@kmahvac mcaco@mcaco.org sdnymcam@menards.com adwoodworth@aol.com john.wells@millercoors.com mark.koch@millercoors.com jackjamisonjr@comcast.net rbeecher@mkcinc.com dpatterson@mottermeadows.com rmeadows@mottermeadows.com jameslinkearchitect@hotmail.com stds\_admin@nfpa.org info@nfsa.org lynch80national@gmail.com nibs@nibs.org kandy.hauk@nist.gov weaverl1@nationwide.com brian@niemanplumbing.com lindsay@noburn.com rknowles@ntainc.com jhedden@nvrinc.com cjcorcoran@oakgroupcode.com koberst@att.net info@acecohio.org ronnie.branson2@gmail.com williams@ohiorealtors.org rick1@one.net carol.ross@com.state.oh.us michelle.moye@com.state.oh.us Stephen.Darling@com.ohio.gov ebailik@com.state.oh.us jhutchins@com.state.oh.us jhowdyshell@com.state.oh.us ppainter@com.state.oh.us fbrown@com.state.oh.us Kathryn.kimmet@odh.ohio.gov rebecca.fugitt@odh.ohio.gov info@ohiofirechiefs.com build@ohiohba.com ricks@ohanet.org info@welcomehomeohio.com

Ohio Petroleum Marketers and Convenience Store Associ info@opmca.org

Ohio Petroleum Marketers and Convenience Store Associ bbehrendt@opmca.org

**Ohio Secretary of State Ohio Society of Professional Engineers** Ohio State Building Trades (Dennis Duffey) Ohio State Fire Marshal (Thomas Miller) **Ohio Statewide Independent Living Council Ohio Township Association** Olson Architectural Products (Adam Olson) **Pacific Northwest National Laboratories** Paino, Peter Pontia Architecture Pontia Architecture **Preview Group** Ptacek and Sons Fire Equipment (Jim Davis) **Pulte Homebuilders** Pulte Homebuilders Redinger, Dane Reed, Jeff Reich, Richard Reliable Electric Services (Larry) RNR Designs (Rich Rokisky) Schaefer Associates Schlekie, Dennis Schmitt, Ron Seaman, Marty Seifert, Rick Shambaugh and Sons (Ron Stewart) Sperber, Eric Sprinkler Fitters Local #669 (Tim Skinner) Stahl, John State Fire Marshal (Tracie Boyd) Stayflex (John Stahl) Stebbins, Bruce Steer, Susan Strauss Construction (Randy Strauss) Sweitzer, Rodger Sycamore Township (Harry Holbert) Tanner, Tom Therm-All Todd, John **Underwriters** Laboratories Unibilt Unibilt (Doug Scholz) **US** Department of Justice Vector Security (Steve Miller) Washington Township Fire Department Wolfe, Dave

BHarbage@ohiosecretaryofstate.gov ospe@ohioengineer.com osbctc@ohiostatebtc.org tmiller@com.state.oh.us kgrier@ohiosilc.org cochran@ohiotownships.org adam@oapinc.us inquiry@pnnl.gov peter-paino@neo.rr.com pcornwell@dpaarchitecture.com dpontia@dpaarchitecture.com srice@preview-group.com jdavis@gpsfire.com keith.filipkowski@pulte.com scott.revill@pulte.com daner@resourceinternational.com jreed@customairco.com richard@reich.co.uk famlywiz@aol.com rich@rnrdesigns.net mpc@ssastructural.com dennis@approvedplumbing.com schmitt.ronald@gmail.com mseaman@epssecurity.com ricks@crowngrouphio.com rstewart@shambaugh.com esperber@altwitzig.com tskinner669@aol.com stahljhn@aol.com tboyd@com.state.oh.us john.stahl@stayflex.com stebplumb@gmail.com susan.steer@com.state.oh.us randykstrauss@aol.com baumannplumbing@ameritech.net hholbert@sycamoretownship.org ttanner@tannerhvac.com mburns@therm-all.com jtodd@arrowhc.com john.k.taecker@ul.com cook.dave@unibilt.com scholz.doug@unibilt.com askdoj@usdoj.gov sjmiller@vectorsecurity.com crauch@washingtontwp.org dwolfe@watkem.com

Black Burkhard Butler

Chaney

S 2

Combeq Davidson Dreyer Dupuis Furst Geraghty Jim Kelly Klein

KMA Linn Malkin

McAdams Mengon

Miller Miller, Brittany

Moore

Nickerson

Pierce

Rob Roberts

Safarz Schmidt

Schaefer, Benjamin (AEP)

mjhenderson@nuwool.com mpatel@ohiohba.com mrudey@co.wood.oh.us ojgp@roadrunner.com Renee.Snodgrass@westcarrollton.org reshenbaugh@ohiohba.com rhelsinger@fairfield-city.org rocco@phccohio.org ronb@zmchd.org rovloc93@aol.com sfrancis@awc.org tskinner669@aol.com TMcClintock@nfpa.org tmoore1767@aol.com tspayth@co.madison.oh.us twanner@mapic.org vsquillace@ohiohba.com wholf-bruce@maumee.org WMcErlane@springdale.org lawrence\_r\_black@hsb.com piperdavidl@aol.com tbutler@niulpe.org jchaney@ovec.com combeq@gmail.com WDAVIDSO@travelers.com tdreyer@whgardiner.com mdupuis@vaporpower.com tfurst@brunercorp.com greg.geraghty@zurichna.com jim@delval.com gkelly@keldenequipment.com jklein@ohiochemistry.org joe@kmahvac.com LLINN@travelers.com dennis.malkin@robertsmech.com amcadams@parkertrutec.com mark.mengon@fmglobal.com Michael Miller@CINFIN.com brittany\_miller@cargill.com Brian Moore@hsb.com r.nickerson@econtrol.com rpierce@hurstboiler.com rob@boilerspecialists.com groberts@robertsmech.com jsafarz@combustionsafety.com tes@stoermer-anderson.com bschaeffer@aep.com

Smith rick.smith@ate-inc.com Hughes info@smithhughes.com brad@smithhughes.com Hughes KAW@stoermer-anderson.com Stoermer Sullivan, Robert sullivan.rl.2@pg.com walters@boilerworks.com Walters steamworksllc@att.net Wilson Plumbing-Heating-Cooling Contractors of Ohio rocco@phccohio.org American Society of Mechanical Engineers infocentral@asme.org Arise Boiler Inspection and Insurance Company paul.welch@ariseinc.com **Buckeye Association of School Administrators** ash@basa-ohio.org vsordillo@chubb.com Chubb and Son wayne\_pinney@cinfin.com **Cincinnati Insurance Companies** eaglemechanical@neo.rr.com Eagle Mechanical tomludeke@eastgategraphics.com Eastgate Graphics (Tom Ludeke) Factory Mutual Insurance Company phillip.cole@fmglobal.com Bryan.Forrest@ihs.com Information Handling Services National Board of Boiler & Pressure Vessel Inspectors ddouin@nationalboard.org National Board of Boiler & Pressure Vessel Inspectors fbrown@nationalboard.org information@nationalboard.org National Board of Boiler & Pressure Vessel Inspectors rickf@ohanet.org **Ohio Hospital Association** Ohio Manufacturer's Association oma@ohiomfg.com ed.whittle@onecis.com **OneCIS America Insurance Company** Toledo Heating & Air Conditioning Contractors Associatio info@thacca.org **Travelers Risk** ckent@travelers.com XL Insurance America gary.cox@bpcllcga.com ken.leavelle@zurichna.com **Zurich Services Corporation** 

## Hanshaw, Regina

From: Sent:	Lane, Michael Tuesday, February 24, 2015 4:05 PM
To:	Lane, Michael
Cc:	Hanshaw, Regina; Regoli, Steve; Ohler, Debbie; Johnson, Robert; Thiel, Kelly
Subject:	Board of Building Standards Proposed Rules/Stakeholder Meeting Notification
Attachments:	Stakeholder Meeting Notification.pdf

Board of Building Standards Stakeholder:

You are receiving this message pursuant to the requirements of Executive Order 2011-01K and Senate Bill 2 of the 129th General Assembly, which require state agencies, including the Ohio Board of Building Standards (Board), to draft rules in collaboration with stakeholders, assess and justify any adverse impact on the business community, and provide opportunity for the affected public to provide input on the rules.

## **Stakeholder Meeting**

The Board will conduct a Stakeholder Meeting to hear comments and respond to questions on the proposed amendments summarized below on March 13, 2015 from 9:00 AM to 1:00 PM in Training Room 1, 6606 Tussing Road, Reynoldsburg, Ohio 43068. All interested stakeholders are invited to attend. The agenda for the meeting is as follows:

10:00  AM - 11:00  AM	Proposed Ohio Building Code Rules
11:00 AM – 12:00 PM	Proposed Ohio Plumbing Code Rules
12:00 PM – 1:00 PM	Proposed Ohio Mechanical Code Rules Proposed Residential Code of Ohio Rules

#### **Overview of Proposed Rules**

#### Proposed Ohio Building Code Rules

The Board proposes to amend the Ohio Administrative Code as follows: 4101:1-1-01 to clarify that public water systems, private water systems, marinas, and portable mobile vehicles are outside the scope of the codes, to exempt above-ground storage tanks from approval, to clarify that gas process equipment, tanks, and foundations are exempt from approval, to clarify that process equipment tanks and foundations are exempt from approval, to add the option and requirements for an incidental inspection program, to correct references that no longer apply, to delete the requirement to provide the fire protection system installer to the building department prior to approval, to clarify that the building department is to be notified of hazardous materials storage, to define the incidental inspection program, to require that Industrialized Unit manufacturer's report the insignia number of shipped units, and to modify the fees for services provided by the Division of Industrial Compliance; 4101:1-2-01 to add definitions for 24-hour care definition, above-ground storage tank, engine-mounted tank, fuel tank and incapable of selfpreservation, to modify definitions for ambulatory health care facility, building services equipment and historic building, and to delete the definitions for adult family home and home, adult family; 4101:1-3-01 to add casinos and cafeterias, to modify term "Ambulatory Health Care Facility," to modify definition of Ambulatory Health Care Facility, to add commercial kitchens in § 306.2, to clarify intent of exception in § 307.1 as it relates to building service equipment, to add row and note "q" for combustible dusts and modify note "i" to add diesel oil and references to OMC in Table 307.1, to add qualifier and code reference for combustible dust, to add clarification and conditions for those buildings permitted to use the RCO design requirements, and to clarify that building service equipment tanks are Group U; 4101:1-4-01 to modify requirements for Ambulatory Care Facilities and to make general editorial corrections; 4101:1-5-01 to modify note "b" in table 503 to provide reference to Chapters 4 and 5; 4101:1-7-01 to add a reference to NFPA 221 for the construction of double fire walls, to add an exception to the hoistway venting requirement, to add two exceptions to the smoke barrier continuity requirements, to add two exceptions to the membrane penetration protection requirements, to add an exception for exterior curtain wall intersection requirements, and to add an additional exception to the fire damper requirement; 4101:1-9-01 to clarify requirements for Ambulatory Care Facilities, to clarify that two fire pumps are not necessarily required in all cases, to provide a cross reference to existing § 407.2.5 which allows domestic type hood suppression systems meeting UL 300A, to provide clarification of hose connection locations, to delete marina standpipe requirements as outside the scope, to clarify extinguisher requirements in Group I-2 nursing homes, to coordinate with existing Chapter 11 requirements for voice/alarm systems, to coordinate Ambulatory Care Facility requirements, to require emergency voice/alarm communication systems in schools, to add clarifying language and to add additional options consistent with OEPA rules and NFPA 20; **4101:1-27-01** to provide clarification and design guidance for emergency and standby power systems, to provide clarification and design guidance for stationary generators and the associated fuel supplies, to add a row for casinos, to add note "i" eliminating the requirement for service sinks in certain B and M occupancies, to increase the threshold for separate facilities in mercantile occupancies, to add a new section that allows two family or assisted use toilet facilities to serve as separate facilities, to clarify the drinking fountain requirements and to clarify the setting requirements for fixtures; **4101:1-31-01** to remove language relating to mobile units; **4101:1-35-01** to update NFPA standards 30 and 31 and add standards 37 and 221 and to add UL standard 300A.

These proposed rules can be viewed here:

http://www.com.ohio.gov/documents/dico\_OBCproposedchangesforMarch2015stakeholdermeeting.pdf

#### Proposed Ohio Plumbing Code Rules

The Board proposes to amend the Ohio Administrative Code as follows: 4101:3-2-01 to add definitions for above-ground storage tank, building service equipment, containment backflow prevention device, engine-mounted device, fuel tank, isolation and backflow prevention device, to modify definitions for combination waste and vent system, listed and plumbing fixture and to delete definitions for third party certification agency, third party certified and third part tested; 4101:3-3-01 to clarify that materials should include markings required by the referenced standards, to change 'third party' to 'approved agency' and clarifying language to delete third party requirements in Table 303.4, to clarify that insulation is required for each hot water pipe when bundled, to reference § 1612 of the building code for flood resistance, to clarify plastic pipe testing procedure, to clarify plastic pipe testing procedure, to clarify isolation backflow prevention device inspection and testing procedure as a result of coordination with OEPA, to add operational testing of low pressure cut-off device, low suction throttling valves, and variable speed suction limiting controls as a result of coordination with OEPA and to make general editorial corrections; 4101:3-4-01 to add specific plumbing fixture requirements for casinos and to add a service sink exemption for business and mercantile occupancies with occupant load fewer than 15 in Table 403.1, to allow family or assisted-use toilet facilities to serve as separate facilities, to clarify toilet room location, to clarify drinking fountain fixture locations, to remove Figure 405.3.1, to modify the minimum number of drinking fountains required and exceptions, to remove reference to commercial food waste grinders, to modify the language requiring tempered water for public hand-washing facilities, to add standard for liquid-type, trowel-applied, load-bearing, bonded waterproof materials, to add requirements for water closet personal hygiene devices and to make general editorial corrections; 4101:3-6-01 to modify reference standards, add pipe as well as tubing, and add polyethylene of raised temperature (PE-RT) , to add polyethylene of raised temperature (PE-RT) plastic tubing and reference standard plastic tubing in Table 605.3 in Table 605.4, to modify reference standards and to add polyethylene of raised temperature (PE-RT) plastic tubing and reference standard in Table 605.5, to add polyethylene of raised temperature plastic requirements, to add PE-RT flared joints and mechanical joints requirements, to add variable speed suction limiting controls to booster pump requirements and to clarify jurisdiction as a result of coordination with OEPA, to add temperature limiting means to hot water supply system requirements, to specify installation of temperature-actuated mixing valves and to make general editorial corrections; 4101:3-9-01 to clarify the length of a combination drain and vent system shall be unlimited and to add § 920 Single Stack Vent System; 4101:3-13-01 to add ASME standards A112.4.2-2008, ASTM standards F2735-09 and F2769-09, WWA standards C901-08 and C904-08, CSA standards B45.10, B45.15, B125.1, B125.2, B125.6, B356-05, and B483.1-07, to update ASME standards A112.18.1, A112.18.2, A112.18.3, A112.18.6, A112.19.1, A112.19.2, A112.19.3, A112.19.5, A112.19.7, CSA standards B45.1, B45.2, B45.4, and to remove ASME standards A112.19.6, A112.19.8M, A112.19.9M, and A112.19.13 and ASSE standards 1009-90. These proposed rules can be viewed here:

http://www.com.ohio.gov/documents/dico\_OPCproposedchangesforMarch2015stakeholdermeeting.pdf

#### Proposed Ohio Mechanical Code:

The Board proposes to amend the Ohio Administrative Code as follows: **4101:2-2-01** to add definitions for above-ground storage tank, building service equipment, engine-mounted tank and fuel tank; **4101:2-3-01** to add requirement for manufacturer identification, to add requirement for listing of plastic pipe, to add requirement for approved agency testing or listing of piping, tubing, and fittings and to make general editorial corrections; **4101:2-5-01** to coordinate the supervision requirement found in the fire code, to add diesel fuel § 502.9.5, Exception 3, to add requirements for underground grease ducts, to add code references in § 507.1 which are exempt from certain requirements, to add an exception for integral down draft exhaust systems and to make general editorial corrections; **4101:2-9-01** to add design guidance and clarification for fuel tanks supplying engine-driven building service equipment, to add design guidance for gaseous fuel supply for engines supplying building service equipment, to add design guidance for make general editorial corrections; **4101:2-13-01** to add design guidance for diesel oil storage and piping systems associated with building service equipment, to add design guidance for diesel oil storage

and piping systems associated with building service equipment, to add design guidance for fuel oil and diesel oil storage for building service equipment and to make general editorial corrections; **4101:2-15-01** to update NFPA standard 31 and to add NFPA standards 30 and 96 and to update standard UL 2200 and to add UL standard 2085.

These proposed rules can be viewed here:

\* \*

http://www.com.ohio.gov/documents/dico\_OMCproposedchangesforMarch2015stakeholdermeeting.pdf

## Proposed Residential Code of Ohio Rules:

. .

The Board proposes to amend the Ohio Administrative Code as follows: 4101:8-1-01 to add language including electrical equipment associated with bodies of water, to add an exception for private water systems, to add above-ground storage tanks as work exempt from approval, to add an incidental inspection program and requirements, to remove language regarding the installer of fire protection systems, o add accessibility provisions to plan submittal and to make general editorial corrections; to add definitions for above ground storage tank, building service equipment, engine mounted tank and fuel 4101:8-2-01 tank; 4101:8-3-01 to add detached garages with an exterior wall located  $\geq$ 3 ft from a lot line in to exceptions to § 302.1, to specify the technology requirements in § 314.1, to add an exception for systems meeting in § 314.2, to add Type C (visitable) to accessibility scope and to make general editorial corrections; 4101:8-5-01 to update references in §§ 502.1.1 and 502.2.1, to remove deck lateral load connection language, to remove figure 502.2.2.3, and to add clarification to the exceptions for vapor retarder requirements in § 506.2.3; 4101:8-19-0 to add a section for Engine and gas-turbine powered equipment and appliances, to add requirements for engine-driven equipment and appliances and fuel tanks connected to engine-driven building services equipment requirements and to make general editorial corrections; 4101:8-22-01 to add a scope to the Special piping and storage systems chapter, to add diesel oil to the scope of above-ground tanks requirements, to add an exception and specify a reference standard in § 2201.2 and to add regulated underground storage of fuel oil requirements; 4101:8-24-01 to add CSST bonding and to update language from 'air conditioners' to 'equipment and appliances;' 4101:8-34-01 to add provisions for emergency and standards 30-15, 37-10, 110-10, standby power systems; 4101:8-44-01 to update the OAC referenced codes, to add NFPA and 111-10 and update standard 31-11, and to add UL standard 2200-12.

These proposed rules can be viewed here:

http://www.com.ohio.gov/documents/dico\_RCOproposedchangesforMarch2015stakeholdermeeting.pdf

#### **Contact Information for Comments or Questions**

If you cannot attend the above Stakeholder Meeting, you can submit written comments or questions on the proposed amendments to the Board. You may submit your comments via email at <u>BBS@com.state.oh.us</u> or U.S. Mail at Ohio Board of Building Standards, 6606 Tussing Rd, Reynoldsburg, Ohio 43068, Attn: Regina Hanshaw by March 31, 2015.

Sincerely,

Regina S. Hanshaw Executive Secretary Ohio Board of Building Standards



Regina Hanshaw Executive Secretary Ohio Department of Commerce Board of Building Standards 6606 Tussing Rd., Reynoldsburg, OH 43068 614-644-2613 www.com.ohio.gov

This message and any response to it may constitute a public record and thus may be publicly available to anyone who requests it.

## <u>Stakeholder Meeting</u> <u>Proposed Ohio Plumbing Code Rules</u> <u>March 13, 2015</u> <u>11:00 AM – 12:00 PM</u>

The Board is conducting this stakeholder meeting as part of the Common Sense Initiative (CSI) Business Regulation Impact process to provide information on proposed rules and respond to questions from interested persons prior to formal rule-filing. After review of all comments submitted in writing and at today's meeting, the Board will incorporate any approved changes as a result of the comments and document the reasons for the changes in a Business Regulatory Impact Analysis. The revised rules and the Business Regulatory Impact Analysis will then be filed with the CSI Office for review and recommendation and resent to stakeholders via e-notification. After receipt of the CSI Office recommendations, the Board will determine whether to move forward with formal rule-filing. If the Board does determine to formally file these rules, as revised, the Board will also conduct a regular public hearing prior to their adoption as required by Revised Code Chapter 119.

#### Proposed Ohio Plumbing Code Rules

The Board proposes to amend the Ohio Administrative Code as follows: 4101:3-2-01 to add definitions for above-ground storage tank, building service equipment, containment backflow prevention device, engine-mounted device, fuel tank, isolation and backflow prevention device, to modify definitions for combination waste and vent system, listed and plumbing fixture and to delete definitions for third party certification agency, third party certified and third part tested; 4101:3-3-01 to clarify that materials should include markings required by the referenced standards, to change 'third party' to 'approved agency' and clarifying language, to delete third party requirements in Table 303.4, to clarify that insulation is required for each hot water pipe when bundled, to reference § 1612 of the building code for flood resistance, to clarify plastic pipe testing procedure, to clarify plastic pipe testing procedure, to clarify isolation backflow prevention device inspection and testing procedure as a result of coordination with OEPA, to add operational testing of low pressure cut-off device, low suction throttling valves, and variable speed suction limiting controls as a result of coordination with OEPA and to make general editorial corrections; 4101:3-4-01 to add specific plumbing fixture requirements for casinos and to add a service sink exemption for business and mercantile occupancies with occupant load fewer than 15 in Table 403.1, to allow family or assisteduse toilet facilities to serve as separate facilities, to clarify toilet room location, to clarify drinking fountain fixture locations, to remove Figure 405.3.1, to modify the minimum number of drinking fountains required and exceptions, to remove reference to commercial food waste grinders, to modify the language requiring tempered water for public hand-washing facilities, to add standard for liquid-type, trowel-applied, load-bearing, bonded waterproof materials, to add requirements for water closet personal hygiene devices and to make general editorial corrections; 4101:3-6-01 to modify reference standards, add pipe as well as tubing, and add polyethylene of raised temperature (PE-RT) plastic tubing in Table 605.3, to add polyethylene of raised temperature (PE-RT) plastic tubing and reference standard in Table 605.4, to modify reference standards and to add polyethylene of raised temperature (PE-RT) plastic tubing and reference standard in Table 605.5, to add polyethylene of raised temperature plastic requirements, to add PE-RT flared joints and mechanical joints requirements, to add variable speed suction limiting controls to booster pump requirements and to clarify jurisdiction as a result of coordination with OEPA, to add temperature limiting means to hot water supply system requirements, to specify installation of temperature-actuated mixing valves and to make general editorial corrections; 4101:3-9-01 to clarify the length of a combination

drain and vent system shall be unlimited and to add § 920 Single Stack Vent System; **4101:3-13-01** to add ASME standards A112.4.2-2008, ASTM standards F2735-09 and F2769-09, WWA standards C901-08 and C904-08, CSA standards B45.10, B45.15, B125.1, B125.2, B125.6, B356-05, and B483.1-07, to update ASME standards A112.18.1, A112.18.2, A112.18.3, A112.18.6, A112.19.1, A112.19.2, A112.19.3, A112.19.5, A112.19.7, CSA standards B45.1, B45.2, B45.4, and to remove ASME standards A112.19.8M, A112.19.9M, and A112.19.13 and ASSE standards 1009-90.



Department of Commerce

Division of Industrial Compliance John R. Kasich, Governor Andre T. Porter, Director

#### List of BBS Proposed Ohio Plumbing Code Rule Changes– Spring 2015 2011 OHIO PLUMBING CODE PROPOSED CHANGES

Ohio Administrative Code Rule Number	OPC Section	Reason for proposed change
4101:3-2-01	Above-ground storage tank	To add definition
	Building service equipment	To add definition
	Combination waste and vent	To modify definition
	system	2
	Containment backflow	To add definition as a result of
	prevention device	coordination with OEPA
	Engine-mounted tank	To add definition
	Fuel tank	To add definition
	Isolation backflow prevention	To add definition as a result of
	device	coordination with OEPA
	Listed	To modify definition
	Plumbing appliance	To modify definition
	Plumbing fixture	To modify definition
	Third party certification agency	To delete definition
	Third party certified	To delete definition
	Third party tested	To delete definition
4101:3-3-01	303.1	To clarify that materials should
101.5 5 01		include markings required by
		the referenced standards.
	303.4	To change 'third party' to
		'approved agency' and
		clarifying language.
	Table 303.4	To delete third party
		requirements
	308.9	To clarify that insulation is
		required for each hot water pipe
		when bundled
	309.1	To reference Section 1612 for
		the building code for flood
		resistance
	312.2	To clarify plastic pipe testing
		procedure
	312.3	To clarify plastic pipe testing
		procedure
	312.10	To clarify isolation backflow
		prevention device inspection
		and testing procedure as a result
		of coordination with OEPA
	312.11	To add operational testing of
		low pressure cut-off device, low

Ohio Board of Building Standards 6606 Tussing Road PO Box 4009 Reynoldsburg, OH 43068-9009 U.S.A.

Gerald O. Holland, Chairman

614 | 644 2613 Fax 614 | 644 3147 TTY/TDD 800 | 750 0750 www.com.ohio.gov

An Equal Opportunity Employer and Service Provider

		suction throttling valves, and
		variable speed suction limiting
		controls as a result of
		coordination with OEPA.
	312.12	Renumbered
4101:3-4-01	401.2	To clarify reference standard
4101:3-4-01	Table 403.1	
	1 able 405.1	To add specific plumbing
	T-11-402 1	fixture requirements for casinos
	Table 403.1, note i	To add a service sink exemption
		for business and mercantile
		occupancies with occupant load
	402.2.1	fewer than 15
	403.2.1	To allow family or assisted-use
		toilet facilities to serve as
	402.2.5	separate facilities
	403.3.5	To clarify toilet room location
	403.5	To clarify drinking fountain
		location
	403.6	Renumbered
	405.3.1	To clarify language regarding
		location of fixtures
	Figure 405.3.1	To remove figure
	405.9	To clarify reference standards
	407.1	To modify reference standards
	408.1	To modify reference standards
	408.3	To modify reference standards
	410.1	To modify reference standards
	410.2	To modify the minimum
		number of drinking fountains
		required and exceptions
	410.3	Renumbered
	413.1	To remove reference to
		commercial food waste grinders
	415.1	To modify reference standards
	416.1	To modify reference standards
	416.5	To modify the language
		requiring tempered water for
		public hand-washing facilities
	417.1	To modify reference standards
	417.5.2.1	To remove redundant language
		already in reference standard
	417.5.2.6	To add standard for liquid-type,
		trowel-applied, load-bearing,
		bonded waterproof materials.
	418.1	To modify reference standards
	419.1	To modify reference standards
	420.1	To modify reference standards
	421.1	To modify reference standards
	421.4	To modify reference standards

	424.4	To modify reference standards
	424.6	To modify reference standards
	424.9	To add requirements for water
	121.9	closet personal hygiene devices
	425.2	To modify reference standards
	425.4	To modify reference standards
4101:3-6-01	Table 604.5	To change 'flush' to
4101.3-0-01	1 able 004.5	flushometer
	604.8	To add reference standard
	605.6	
	Table 605.3	To modify reference standard
	1 able 605.5	To modify reference standards,
		add pipe as well as tubing, and
		add polyethylene of raised
		temperature (PE-RT) plastic
	T-11- CO5 4	tubing
	Table 605.4	To add polyethylene of raised
		temperature (PE-RT) plastic
	Toble 605.5	tubing and reference standard
	Table 605.5	To modify reference standards
		and to add polyethylene of
		raised temperature (PE-RT)
		plastic tubing and reference standard
	<u> </u>	
	605.25	To add polyethylene of raised
		temperature plastic
	<u> </u>	requirements
	605.25.1	To add PE-RT flared joints
		requirements
	605.25.2	To add PE-RT mechanical
		joints requirements
	606.5.5	To add variable speed suction
		limiting controls to booster
		pump requirements and to
		clarify jurisdiction as a result of
		coordination with OEPA
	607.1.1	To add temperature limiting
		means to hot water supply
		system requirements
	607.3.2	To add clarifying language as a
		result of coordination with OEPA
	<u> </u>	-
	608.1	To add clarifying language as a
		result of coordination with
		OEPA
	611.1	To modify reference standards
	611.2	To modify reference standards
	613.1	To specify installation of
		temperature-actuated mixing
		valves.
4101:3-9-01	912.2.2	To clarify the length of a

		combination drain and vent
		system shall be unlimited
	920	To add Section 920 Single Stack
	920	Vent System
	920.1	To add where single stack vent
	920.1	-
	020.2	systems are permitted To add what size is allowed for
	920.2	stacks
	Table 920.2	To add single stack size
		requirements
	920.3	To add branch size
	920.4	To add the length of horizontal
		branches
	920.4.1, and exception	To add water closet connections
	920.4.2	To add fixture connection
	920.4.3	To add vertical piping in branch
	920.5	To add minimum vertical piping
		size from fixture
	920.6	To add additional venting
		required
	920.7	To add stack offsets
	920.8	To add prohibited lower
		connections
	920.9	To add sizing building drains
		and sewers
4101:3-13-01	ASME	To add A112.4.2-2008 and
		update A112.18.1, A112.18.2,
		Â112.18.3, A112.18.6,
		A112.19.1, A112.19.2,
		A112.19.3, A112.19.5,
		A112.19.7 and remove
		A112.19.6, A112.19.8M,
		A112.19.9M, and A112.19.13
	ASSE	To remove 1009-90
	ASTM	To add F2735-09 and F2769-09
	AWWA	To add C901-08 and C904-08
	CSA	To modify B45.1, B45.2, B45.4,
		to add B45.10, B45.15, B125.1,
		B125.2, B125.6, B356-05, and
		B483.1-07

# **Exhibit** C



## COMMUNITY & ECONOMIC DEVELOPEMENT

#### BUILDING REGULATIONS DIVISION

451 West Third Street, 10th Floor Dayton, Ohio 45422-1070 937-225-4622 - phone 937-225-6327 - fax

www.mcohio.org/build

COUNTY COMMISSIONERS Judy Dodge Dan Foley Deborah A. Lieberman

COUNTY ADMINISTRATOR Joseph P. Tuss

COMMUNITY & ECONOMIC DEVELOPEMENT DIRECTOR Erik S. Collins

March 3, 2015

Ohio Board of Building Standards 6606 Tussing Road PO Box 4009 Columbus, Ohio 43068-9009

Dear Sirs and Madams,

I have some concerns about upcoming Ohio Plumbing Code changes that I would like to share with the Board at the hearing on March 13, 2015.

Below is an excerpt of the changes proposed to Section 410 the Ohio Plumbing Code:

#### **SECTION 410 DRINKING FOUNTAINS**

**410.1 Approval**. Drinking fountains shall conform to ASME A112.19.1M,/CSA B45.2 or ASME A112.19.2M or ASME A112.19.9M/CSA B45.1 and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9. Where water is served in restaurants, or where bottled water coolers are provided in other occupancies, drinking fountains shall not be required.

**410.2 Minimum number.** Where drinking fountains are required, not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

*Exception:* A single drinking fountain that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.

410.2 <u>410.3</u> Prohibited location. Drinking fountains, water coolers and bottled water dispensers shall not be installed in public restrooms.

I believe this can be construed that under 410.1, if one provides a bottled water cooler, one could argue that drinking fountains are not required, and therefore, one does not have to abide by the provisions of 410.2 for high-low drinking fountains because they are only required "where drinking fountains are required."

I raised this issue with the Board a few years ago due to the apparent conflict between 410.1 and the provisions of OBC Chapter 11, which has language similar to 410.2. I was told that the provisions of Chapter 11 for accessible drinking fountains superseded plumbing code language to the extent that you must first provide the high-low drinking fountain, and the substitution of bottled water dispensers was only applicable if more than one drinking fountain was required, additional water service could be provided by the water coolers.

Additional questions arise if bottled water dispensers are allowed to substitute for accessible drinking fountains. By what measures does one address the accessibility of the bottled water dispenser? Does the spigot have to deliver water without a tight grasping or pinching action? Does the cup dispenser have to also provide cups without requiring tight grasping or pinching? Do the cups themselves have to be capable of being held without tight grasping and pinching? In a nutshell, if my hands are closed, fist-like, due to arthritis or some similar disability, can I operate that bottled water dispenser to quench my thirst?

Are we to require cut sheets for the dispensers at the time of plan review in order to evaluate the claims of usability by persons with disabilities? Because these are portable, plug-in devices, do we notate on the Certificate of Occupancy that they must be provided and filled as a condition of occupancy approval?

I think the Board should take this opportunity to be very clear about your intent, and not let such language persist that pits my interpretation against applicants' time and time again.

Thank you for your consideration,

Maurice D. Wyckoff Chief Building Official Montgomery County Building Regulations

#### Hanshaw, Regina

From:	Richard Nelson <rnelson@medinaco.org></rnelson@medinaco.org>
Sent:	Thursday, March 19, 2015 3:08 PM
To:	Hanshaw, Regina; Regoli, Steve
Subject:	stake holder mtg comments

Hello

Follow up on my comments at the meeting;

RCO 302.1 new exception #6 I commented that existing exemption #2 conflicted with the associated table-<u>I</u> retract the comment- I now understand what it is saying.

OBC 716.5.4 new exception #4 I commented that the first sentence wording is bad. Now knowing that it came straight from the IBC, it may be best to leave it alone, but I do think it could read better, such as:

4. HVAC duct penetrations in fire partitions which have a required fire resistance rating of (1) hour or less, and, are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.1.1 or 903.1.2.

Thank you ( I don't have Robs e-mail) Richard Nelson Residential Building Official/Inspectors Supervisor

**Medina County Building Department** 791 W. Smith Rd. Medina, OH 44256

p 330 764 8289 f 330 764 8204 http://building.medinaco.org

### Hanshaw, Regina

From:	Stephen Risser <srisser@richlandcountyoh.us></srisser@richlandcountyoh.us>
Sent:	Tuesday, March 31, 2015 4:28 PM
То:	Ohler, Debbie
Cc:	Hanshaw, Regina; Ken Arthur
Subject:	Re: Above-ground storage tank/generator rule language

Debbie,

Thanks again for sending the draft rules for our comment. Our comments are below. From our understanding, the associated structural (including foundation) and electrical work would also be exempt from the scope of the OBC unless the tanks or equipment serve or are connected to building services equipment.

- 1. Page 1. Rule 4101:1-1-01 (OBC Chapter 1). Work exempt from approval per OBC 102.10. I would suggest that clarifications are added to the Building and Electrical Sections under section 102.10 to clarify these scopes are exempt from work as well related to engine-mounted tanks and fuel tanks. The building section as written does already mention above-ground storage tanks.
- 2. Page 5-6. Rule 4101:1-27-01 (OBC Chapter 27). I see the inconsistencies between the NFPA standards. Agree that this is an NFPA code change proposal and would be difficult to bridge the inconsistencies in the OBC. Is the SFM language proposed to be added in this section? This will make the OBC consistent with the OFC. It may be prudent to add the minimum prescriptive requirements as written and allow for alternate methods of protection subject to the approval of the building official. Allowing for the alternate methods of approval will still allow the designers flexibility while reminding them that certain levels of protection (impact protection, security, etc.) are still required. In our opinon, sometimes designers will only design when the code requires or "reminds" them to.
- 3. Page 8. **Rule 4101:2-9-01 (OMC Chapter 9).** Agreed on OBC 915.2.1.1 on the prescriptive requirements for generator and tank protection. Is the SFM language proposed to be added in this section too? Agreed as well on consistency requirements. See comments on OBC Chapter 27.
- 4. Page 9. Rule 4101:2-13-01 (OMC Chapter 13). OBC 1301.2.....I don't see a section for OMC 1308.3.6. Is this a new proposed section?

From a technical standpoint, I think the proposed rules are very good and the definitions have been altered in a way to minimize confusion. I think the only issues are the scope of work with regard to what type of work requires an approval and by what agency. The education process may be difficult as currently multiple agencies (building, local fire vs state fire) may be enforcing multiple codes on a project. Again, thanks for the opportunity to provide comments.

Sincerely,

Stephen M. Risser, PE Director

Richland County Building Department 1495 W. Longview Avenue Suite 202A Mansfield, Ohio 44906 voice: (419) 774-5517 fax: (419) 774-6317 email: <u>srisser@richlandcountyoh.us</u> web: www.richlandcountyoh.us/c&p.htm

#### On Mon, Mar 2, 2015 at 9:44 AM, Ohler, Debbie < Debbie.Ohler@com.state.oh.us> wrote:

Good morning, Steve.

If possible, we would like the comments by March 31<sup>st</sup>.

Thanks again!

Debbie



Deborah D. Ohler, P.E., Staff Engineer Ohio Board of Building Standards PO Box 4009, 6606 Tussing Rd Reynoldsburg, OH 43068-9009 Office Phone: <u>614-644-2613</u> Fax:<u>614-222-2147</u> <u>dohler@com.state.oh.us</u> <u>http://www.com.ohio.gov/dico/BBS/</u>

This message and any response to it may constitute a public record and thus may be publicly available to anyone who requests it.

From: Stephen Risser [mailto:srisser@richlandcountyoh.us]
Sent: Friday, February 27, 2015 4:20 PM
To: Ohler, Debbie
Subject: Re: Above-ground storage tank/generator rule language

Debbie,

Thanks for the email. I'll review here with our staff and put come comments together.

Being the OBOA conference is the first part of the week and we have a workgroup conference call on the 11th, we most likely will not be at the March 13th meeting. When is the deadline for email comments?

Stephen M. Risser, PE Director

Richland County Building Department 1495 W. Longview Avenue Suite 202A Mansfield, Ohio 44906 voice: (419) 774-5517 fax: (419) 774-6317 email: <u>srisser@richlandcountyoh.us</u> web: <u>www.richlandcountyoh.us/c&p.htm</u>

On Fri, Feb 27, 2015 at 8:34 AM, Ohler, Debbie <<u>Debbie.Ohler@com.state.oh.us</u>> wrote:

Good morning, Steve.

I hope you are staying warm during this long, cold winter!

You and I had spoken a few months ago about our proposal to change the rules relating to above-ground storage tanks and generators. You had indicated, at that time, that you would be willing to take a look and provide comments/suggestions/questions on our proposed changes.

If you are still willing to take a look, I have attached a copy of the relevant rule changes for your reference. You may have noticed that these proposed changes are also included in the stakeholder rule review package that we sent out earlier this week. However, the attached document includes only the changes relating to above-ground tanks and generators.

If you have the time, please consider reviewing the rules and offering any comments/suggestions/ questions either, in person at our March 13<sup>th</sup> stakeholder meeting, or via e-mail to myself or Regina.

Thank you for your consideration.

Debbie



Deborah D. Ohler, P.E., Staff Engineer Ohio Board of Building Standards PO Box 4009, 6606 Tussing Rd Reynoldsburg, OH 43068-9009 Office Phone: <u>614-644-2613</u> Fax:<u>614-222-2147</u> <u>dohler@com.state.oh.us</u> <u>http://www.com.ohio.gov/dico/BBS/</u>

This message and any response to it may constitute a public record and thus may be publicly available to anyone who requests it.

#### 

\* The information transmitted is intended solely for the individual or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of or taking action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you have received this email in error please contact the sender and delete the material from any computer.

#### 

\* The information transmitted is intended solely for the individual or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of or taking action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you have received this email in error please contact the sender and delete the material from any computer.

\*

×



# **Medina County Building Department**

791 W Smith Rd Medina OH 44256-2422 www.building.medinaco.org chuber@medinaco.org ph 330-722-9221 fax 330-764-8204

Regina Hanshaw Esq Ohio Board of Building Standards PO Box 4009 Reynoldsburg OH 43068-9009 *Via e-mail BBS@com.state.oh.us*  March 31, 2015

Subject: Proposed Rules/Stakeholder Meeting March 13, 2015

Michael Lane e-mail February 24, 2015 announced subject meeting and stated comments could be submitted in writing. Attached are comments to three proposed changes.

Sincerely,

Charles E Huber

Charles E. Huber Chief Building Official

Atch a/s

cc: Jeffery Rettberg, FBOA President, *jrettberg@fboa.org* James Stocksdale, OBOA President, *JEStocksdale@Columbus.gov*  Medina County Building Dept point-of-contact: Charles Huber, ph 330-722-9221, e-mail chuber@medinaco.org Mr Huber didn't attend nor were his comment at the Stakeholders' Meeting March 13, 2015.

BBS e-mail February 24, 2015 distributed the proposed change to the OBC 101.2 to add exceptions including:

13. Private water systems (including tanks, fountains, piping, and process equipment associated with these systems) regulated by the Ohio Department of Health in accordance with section 3701.344 of the Revised Code.

The wording located in Ohio Revised Code 3781.10 boldface added for emphasis below, provides scope of the tasking to the Board of Building Standards to develop rules. A building's electrical system serving private water systems and septic systems are within the statute's tasking.

**ORC** 3781.10 Board of building standards - powers and duties.(A) (1) The board of building standards shall formulate and adopt rules governing the erection, construction, repair, alteration, and maintenance of all buildings or classes of buildings specified in section <u>3781.06</u> of the Revised Code, including land area incidental to those buildings, the construction of industrialized units, the installation of equipment, and the standards or requirements for materials used in connection with those buildings. The board shall incorporate those rules into separate residential and nonresidential building codes. The standards shall relate to the conservation of energy and the safety and sanitation of those buildings.

Medina County Building Department proposes OBC 101.2 not be amended to add the exception excluding private water systems' electrical systems.

Medina County Building Dept point-of-contact: Charles Huber, ph 330-722-9221, e-mail chuber@medinaco.org Mr Huber didn't attend nor were his comment at the Stakeholders' Meeting March 13, 2015.

BBS e-mail February 24, 2015 distributed the proposed change to the OBC 101.2 to add exceptions including:

14. Marinas, boatyards, and docks.

OBC 1110.4.9 regulates boat slips and boat launch ramps with regards to accessibility. These requirements exist in OBC pursuant to ORC 3781.111(B) requiring OBC be in accordance with the Americans with Disabilities Act.

Medina County Building Department proposes OBC 101.2 be amended to read: <u>14. Marinas, boatyards, and docks except with regard to</u> <u>accessibility as described in Chapter 11.</u> Medina County Building Dept point-of-contact: Timothy Payne, ph 330-764-8286, email tpayne@medinaco.org This follows-up Mr Payne's comments he presented at the Stakeholders' Meeting March 13, 2015.

BBS e-mail February 24, 2015 distributed the proposed change to the RCO 101.2 to read in part:

101.2 Scope. The provisions of the "Residential Code of Ohio for One-, Two-, and Three-Family Dwellings" shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every one-, two-, or three-family dwelling, any appurtenances connected or attached to such buildings or structures, or any accessory structure incidental to that dwelling house <u>electrical equipment associated with bodies of</u> <u>water as defined in article 680 of NFPA 70 as referenced in part</u> <u>IX, chapter 44.</u> This code also applies to a one-family, two-family, or three-family dwelling house that is used as a model to promote the sale of a similar dwelling house. No building or its equipment or accessories, to which the rules of the board apply shall be erected, constructed, or installed, except in conformity with the rules of the board. ...

The wording located in Ohio Revised Code 3781.10 boldface added for emphasis below, should be added to the Residential Code of Ohio for One-, Two-, and Three-Family Dwellings Section 101.2 Scope to avoid the RCO deviating from statute and will show that NFPA 70 Article 680 Swimming Pools, Fountains, and Similar Installations is within the scope of the RCO.

**ORC** 3781.10 Board of building standards - powers and duties.(A) (1) The board of building standards shall formulate and adopt rules governing the erection, construction, repair, alteration, and maintenance of all buildings or classes of buildings specified in section <u>3781.06</u> of the Revised Code, including land area incidental to those buildings, the construction of industrialized units, the installation of equipment, and the standards or requirements for materials used in connection with those buildings. The board shall incorporate those rules into separate residential and nonresidential building codes. The standards shall relate to the conservation of energy and the safety and sanitation of those buildings.

Medina County Building Department proposes RCO 101.2 be amended to read: 101.2 Scope. The provisions of the "Residential Code of Ohio for One-, Two-, and Three-Family Dwellings" shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every one-, two-, or three-family dwelling, any appurtenances connected or attached to such buildings or structures, or any accessory structure incidental to that dwelling house <u>including land area incidental to those</u> <u>buildings or structures.</u> This code also applies to a one-family, two-family, or three-family dwelling house that is used as a model to promote the sale of a similar dwelling house. No building or its equipment or accessories, to which the rules of the board apply shall be erected, constructed, or installed, except in conformity with the rules of the board.

### Hanshaw, Regina

From: Sent: To: Subject: Soma, Jack Friday, April 03, 2015 10:51 AM Hanshaw, Regina; Regoli, Steve; Schell, Susan FW: Booster Pumps



Jack Soma Plumbing Section Supervisor Ohio Department of Commerce Bureau of Building Code Compliance 6606 Tussing Road, Reynoldsburg, OH 43068-9009 614-644-3153 Jack.Soma@com.state.oh.us

This message and any response to it may constitute a public record and thus may be publicly available to anyone who requests it.

From: Rocco Fana [mailto:rocco@phccohio.org] Sent: Friday, April 03, 2015 10:15 AM To: Soma, Jack Subject: Booster Pumps

Jack

Hope your week has been going well. Thank you again for the Plumbing Code class and sitting on the OCILB/DOC Panel.

With things settling down, I can finally forward this to you...received this email about 2 weeks ago and wanted to get your feedback

"At the recent meeting that I attended, residential booster pumps came up. They plan to put a line in the code that dictates that a low pressure switch not only be installed (ok) but the homeowner be required to certify to the water dept. (EPA) every 12 months that it works. I don't think that it is the business of the BBS to dictate a relationship between the homeowner and their water dept. By including this in the code, they will be dictating that the water dept. keep records and enforce this."

"I don't think this should be addressed by the our code. The homeowner has an implied contract with the water department that they will comply with their rules or lose water (i.e. annual backflow tests). And I don't think we should tell other govt. agencies what to do. Not our business!"

Thanks again

Rocco

Rocco Fana, Jr., Executive Director Plumbing-Heating-Cooling Contractors of Ohio 20040 Carolyn Ave / Rocky River, OH 44116

#### 800-686-7422 / fax 216-393-0095 www.phccohio.org

You can help stop unlicensed activity...Ask how You can ROCK YOUR BUSINESS...Ask how

\*

The information transmitted is intended solely for the individual or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of or taking action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you have received this email in error please contact the sender and delete the material from any computer.

\*



National Electrical Manufacturers Association

April 10, 2015

Regina Hanshaw Executive Secretary Ohio Department of Commerce Board of Building Standards 6606 Tussing Rd., Reynoldsburg, OH 43068

Via email: Regina.Hanshaw@com.state.oh.us

Dear Ms. Hanshaw,

On behalf of the Fire, Life Safety, Security and Emergency Communication Section of the National Electrical Manufacturers Association (NEMA), I am writing to express concerns regarding proposed changes to the Ohio Residential Code which would require both photoelectric and ionization smoke detecting devices in residential buildings.

NEMA member companies, along with the Fire Protection Research Foundation and Underwriters Laboratories, continue to conduct research and amend consensus standards to confront the new home furnishings typically used in today's dwellings. The results of the research will lead to new detection technologies and add new performance requirements to consensus product standards designed to enhance the early detection of smoldering fires and flaming fires while improving the nuisance alarm immunity without sacrificing the detection performance. For example, the National Fire Protection Association (NFPA) National Fire Alarm and Signaling Code (NFPA 72-2013) includes spacing requirements crafted to address a need for enhanced performance and reduction of unwanted alarms.

NEMA supports these requirements and believes that incorporation of parallel language into the legislation/regulation is a better path to the ends you desire.

While the proposed amendments to Section 314 of the Ohio Residential Code are wellintentioned, the measure could have the unintended consequence of eliminating future consumer choice in installing smoke detection technology that may provide advanced protection for them and their families. NEMA recommends that the legislation be amended to allow other investigated and listed single or multi-criteria smoke detection devices. We recommend replacing the current proposed language in Section 314.1 with the following:

On each level within each dwelling unit smoke alarms shall be single detection technology or multi-criteria technology listed by a nationally recognized testing laboratory (NRTL) to the applicable American National Standards Institute

(ANSI)/Underwriters Laboratories (UL) product standards and installed according to National Fire Protection Association (NFPA) standards.

Adoption of this recommended amendment would ensure that advancements in smoke detection technology are not prohibited by Ohio statute or code.

In a paper presented by the US Fire Administration last month at the Smoke Alarm Summit sponsored by Vision 2020 and Johns Hopkins, the USFA stated that there were "Several new sensor types ... identified that could provide improved fire detection." It would be unfortunate to preclude such new, advanced technology by a specific reference to current sensor types.

Adoption of this recommended amendment would assure that advancements in smoke detection technology are not precluded by Ohio's codes.

NEMA commends you for your attention to life safety and stands ready to work with you to advance this goal in a manner that protects future advancements in smoke detection technology. Please consider our industry as your best resource for fire and life safety product information. We are available at any time to consult with you on matters of life safety.

NEMA is the association of electrical equipment manufacturers, founded in 1926 and headquartered in Rosslyn, Virginia. It represents nearly 400 electrical and medical imaging manufacturers. Our combined industries account for more than 400,000 American jobs and more than 7,000 facilities across the U.S. Domestic production exceeds \$117 billion per year. NEMA Fire, Life Safety, Security and Emergency Communication members manufacture fire, smoke, and carbon monoxide detection and warning equipment.

If you have any questions regarding NEMA's concerns please contact me at (703) 841-3245 or via email at jonathan.stewart@nema.org.

Respectfully,

Jonathan Stewart Manager, Government Relations



25 Massachusetts Ave., NW Washington, DC 20001 Phone: 202-346-1100

April 14, 2015

Regina Hanshaw Executive Secretary Ohio Department of Commerce Board of Building Standards 6606 Tussing Rd., Reynoldsburg, OH 43068

Dear Ms. Hanshaw:

On behalf of Google and Nest Labs, I am writing to express concerns regarding proposed changes to the Ohio Residential Code that would create multiple new technology requirements for smoke detecting devices in residential buildings. Google and Nest support strong safety standards that encourage innovation in home technologies, and believe that modifications to this proposed rule can strengthen consumer safety and encourage customer choice in the growing home technology market.

Proposed amendments to Section 314 of the Ohio Residential Code, while well-intentioned, could unfortunately limit consumer choice in advanced smoke detection technologies by requiring two specific technologies (photoelectric and ionization detection). To resolve this issue and allow innovative smoke detection technologies to be made available to Ohio families, we suggest replacing the proposed language to Section 314.1 with the below sentence:

On each level within each dwelling unit smoke alarms shall be single-criteria or multi-criteria detection technology listed by a nationally recognized testing laboratory (NRTL) to the applicable American National Standards Institute (ANSI)/Underwriters Laboratories (UL) product standards and installed according to National Fire Protection Association (NFPA) standards.

Adoption of this recommended amendment would ensure that advancements in smoke detection technology are not prohibited by Ohio statute or code. As companies working to deliver more advanced home safety devices to consumers, it would be unfortunate to unintentionally preclude innovations in detection technology by mandating specific current sensor types.

Google and Nest appreciate your work to strengthen home safety and are prepared to work with you to deliver more advanced home safety products to consumers in Ohio. Thank you for your consideration of this request, and I am happy to answer any questions you may have.

Sincerely,

Ind fall

Ron Barnes Head of State Legislative Affairs



# COMMUNITY & ECONOMIC DEVELOPEMENT

**BUILDING REGULATIONS DIVISION** 

451 West Third Street, 10th Floor Dayton, Ohio 45422-1070 937-225-4622 - phone 937-225-6327 - fax

www.mcohio.org/build

COUNTY COMMISSIONERS Judy Dodge Dan Foley Deborah A. Lieberman

COUNTY ADMINISTRATOR Joseph P. Tuss

COMMUNITY & ECONOMIC DEVELOPEMENT DIRECTOR Erik S. Collins

### March 3, 2015 WITH JULY 17, 2015 FOLLOW UP

Ohio Board of Building Standards 6606 Tussing Road PO Box 4009 Columbus, Ohio 43068-9009

Dear Sirs and Madams,

I have some concerns about upcoming Ohio Plumbing Code changes that I would like to share with the Board at their hearing on March 13, 2015.

Below is an excerpt of the changes proposed to Section 410 the Ohio Plumbing Code:

#### SECTION 410 DRINKING FOUNTAINS

**410.1 Approval**. Drinking fountains shall conform to ASME A112.19.1M./CSA B45.2 or ASME A112.19.2M or ASME A112.19.9M/CSA B45.1 and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9. Where water is served in restaurants, or where bottled water coolers are provided in other occupancies, drinking fountains shall not be required.

**410.2 Minimum number.** Where drinking fountains are required, not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

**Exception:** A single drinking fountain that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.

**410.2** <u>**410.3**</u> **Prohibited location**. Drinking fountains, water coolers and bottled water dispensers shall not be installed in public restrooms.

I believe this can be construed that under 410.1, if one provides a bottled water cooler, one could argue that drinking fountains are not required, and therefore, one does not have to abide by the provisions of 410.2 for high-low drinking fountains because they are only required "where drinking fountains are required". If that is truly the intent of the Board, so be it.

However, when I raised this issue with the Board a few years ago due to the apparent conflict between 410.1 and the provisions of OBC Chapter 11, which has language similar to 410.2, I was told that the provisions of Chapter 11 for accessible drinking fountains superseded plumbing code language to the extent that you must first provide the high-low drinking fountain, and the substitution of bottled water dispensers was only applicable if more than one drinking fountain was required, additional water service could be provided by the water coolers.

Additional questions arise if bottled water dispensers are allowed to substitute for accessible drinking fountains. By what measures does one address the accessibility of the bottled water dispenser? Does the spigot have to deliver water without a tight grasping or pinching action? Does the cup dispenser have to also provide cups without requiring tight grasping or pinching? Do the cups themselves have to be capable of being held without tight grasping and pinching? In a nutshell, if my hands are closed, fist-like, due to arthritis or some similar disability, can I operate that bottled water dispenser to quench my thirst?

Are we to require cut sheets for the dispensers at the time of plan review in order to evaluate the claims of usability by persons with disabilities? Because these are portable, plug-in devices, do we notate on the Certificate of Occupancy that they must be provided and filled as a condition of occupancy approval?

I think the Board should take this opportunity to be very clear about your intent, and not let such language persist that pits my interpretation against applicants time and time again.

Thank you for your consideration,

Maurice D. Wyckoff Chief Building Official Montgomery County Building Regulations July 17, 2015

Follow up:

It has been pointed out to me by Debbie Ohler that the Board did review my March 3 comments, and indeed intends to allow bottled water coolers to be substituted for drinking fountains, and therefore does indeed intend to supersede any Chapter 11 requirements for high-low drinking fountains. Okay, I get that. I don't agree, but I get that.

In light of that, I would then recommend clarifying language in OBC Table 2902.1. I recommend the Board change the title of the column "Drinking Fountains" to "Provisions for Drinking Water". I also recommend a similar change to the title of Section 410.1 of the Plumbing Code. Then it should enumerate the three approved ways of providing drinking water; 1) via drinking fountains, 2) via water service at restaurants, or 3) via bottled water coolers.

I would also recommend that the Board clarify that bottled water coolers must still comply with ICC A117.1 Section 308, Reach Ranges, and Section 309, Operable Parts. This will ensure that the designers and installers locate the dispenser in an accessible location, and that the controls will allow persons with disabilities to use them.

One comment was made by Ms. Ohler suggested that part of the rationale for reducing the requirements for built in drinking fountains is that many people now carry around there own cups or water bottles. New York City addressed this in 2012 by allowing up to 50 percent of drinking fountains to be substituted by a permanent plumbing fixture designed for filling a container. See attached 2012 New York City Plumbing Code update #47.

Therefore, I think Ohio should also consider adding a similar provision allowing water filling stations as a fourth option for providing drinking water to the users of our buildings.

As a final note, the Board has authorized "bottled water coolers" which requires refrigerated water. Non-cooled "bottled water dispensers" are not an acceptable solution. If that is not the Board's intent, perhaps it should clarify that language too.

A good reference for definitions can be found at: http://www.newair.com/articles/water-dispenser-basics UPDATE #47

#### CONSTRUCTION CODES UPDATE PAGE

Matter in plain text is unchanged. Matter <u>underlined</u> is new. <u>Matter stricken through</u> is deleted. **Source:** Local Law 55 of 2010, effective July 1, 2012.

# **PLUMBING CODE**

Insert between pages 26 and 27 of your bound volume.

Amend sections 410.1 and 410.2 and add a new section 410.3, to read as follows:

**410.1 Approval.** Drinking fountains shall conform to ASME A112.19.1M, ASME A112.19.2M or ASME A112.19.9M, and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9. Where water is served in restaurants, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required drinking fountains. Drinking fountains required by Table 403.1 shall be equipped with both a bubbler faucet for drinking and a separate faucet designed for filling a container at least 10 inches (254 mm) in height.

**410.2 Prohibited location.** Drinking fountains shall not be installed in public restrooms. **Required drinking fountains.** Where water is served in restaurants, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, up to 50 percent of required drinking fountains conforming to Section 410.1 may be substituted by dedicated plumbing fixtures with faucets designed for filling a container at least 10 inches (254 mm) in height. Bottled water dispensers shall not be substituted for required drinking fountains.

<u>410.3 Prohibited location.</u> Drinking fountains and plumbing fixtures with faucets permitted to be substituted for required

2008 NEW YORK CITY PLUMBING CODE

26a

#### March 13, 2015 Stakeholder Meeting

Ohio Building, Plumbing, Mechanical Codes and Residential Code of Ohio Rules

Attendees:

Ohio Building Code Richard Nelson, Medina County Timothy Payne, Medina County Mike Long, Washington Twp Craig Rauch, Washington Twp Robert Kerst, BBA Ronald K Bartley, SWO ASPE Pete Baldauf, City of Vandalia Mike Miller, City of Strongsville Don Hutchinson, Montgomery County Rick Lecher, Inspection Bureau Inc Ron Schmitt, PHCC Ohio Sophia Papadimos, Lt Governor Keith Wagenknecht, OBOA James Richardon, City of Columbus

Ohio Plumbing Code James Richardson, City of Columbus Ronald Bartley, SWO ASPE Robert Schutz, City of Columbus Mike Miller, City of Strongsville Robert Kerst, BBA Rodger Switzer, PHCC Ronald Schmitt, PHCC

Ohio Mechanical Code and Residential Code of Ohio Greg Wajcik, Simpson Strong Tie Shane Vilasineekul, Simpson Strong Tie Pete Baldauf, City of Vandalia Dewayne Jenkins, City of Kettering John Witherspoon Jr., Vectren Mike Wilson, Vectren Tim Curry, IAEI & Currey Electric Mike Miller, City of Strongsville Timothy Payne, Medina County Rich Nelson, Medina County James Richardson, City of Columbus Robert Kerst, BBA

#### Issues/Questions Raised:

#### **Ohio Building Code**

#### **Electrical**

Richard Nelson asked about electrical connections of proposed exempt structures. Tim Payne also asked about marinas and asked for clarification for the scope of the exemption.

#### Incidental Inspection Program

Don Hutchinson presented the requirements from RC § 3783.03 and asked about compensation for inspectors and inquired whether the next step would contact his HR department since his department does have a collective bargaining.

Richard Nelson/Tim Payne supported the incidental program and stated that recognizes what is already happening for minor work inspections. 99% is going to furnaces and water heaters.

#### Above ground storage tanks

Craig Rauch commented on exemption for tanks in Chapter 1 vs the definition of tank and concern that may be missed by some departments. Also asked about back up power generators for cell towers.

#### Section 310.1, R-3

Richard Nelson asked about proposed dual technology smoke alarm in the RCO and whether should applied in for commercial residential buildings. Staff responded that if you go to RCO Chapters 1 -10 for R-3 then the smoke alarm language would apply.

#### Section 414.5

Pete Baldauf asked how this would apply to process equipment and electrical being a source of ignition for inside storage dispensing. Is the fire marshal going to look at it? Should we exempt sources of ignition? Stated pharmaceutical company that had two explosions because no one is looking at electrical connected to process equipment. Staff responded that design professional will ultimately be responsible and the process equipment exemption is not new.

Craig Rauch asked whether the fire code should be added to exception 2.

#### Section 716.5.4 (1:30)

Richard Nelson stated that language was unclear and suggested language instead "HVAC duct penetrations in walls shall have a fire resistance rating of 1 hour or less".

#### Section 907.2.3 Group E

Richard Nelson asked for the reasoning for reducing 50 to 30.

#### General Comments:

Keith Wagenknecht provided background information on the proposed incidental inspection.

#### Ohio Plumbing Code (2:00)

#### **Definitions**

Jim Richardson asked why reference tanks in the OPC when plumbing inspectors do not look at tanks and EPA's authority.

Rodger Sweitzer questioned inclusion of definitions for containment and isolation backflow devices from OEPA in OPC.

Sections 312.2/312.3 (2:16) Jim Richardson stated that new language appeared redundant.

#### Section 312.11

Jim Richardson questioned the need to bring language into OPC because it is an OPEA requirement. OEPA should not be in the building.

Bob Schutz also stated the OEPA requirements should not be in OPC and explained history of coordination between OEPA and OPC.

Roger Sweitzer also opposed the inclusion of OEPA annual inspection should be removed.

#### Figure 405.3.1 (2:45)

Jim Richardson stated that the figure is helpful. Staff responded that the figure may conflict with ANSI accessibility standard.

Tim Curry stated that UL changed the listing for fountains to water coolers.

#### Section 413.1

Ron Schmitt asked about fixture requirements for kitchen sinks if there is a garbage disposal. Staff responded fixture requirement not affected.

#### Section 920 (3:02)

Bob Schutz stated that he supported the change and requested training on the method for inspectors and contractors.

PHCC representatives stated that training would be beneficial.

Ron Bartley stated that trainings should be open to designers as well.

<u>General Comments</u> <u>Section 419</u> Bob Schutz asked about the deletion for urinal screen.

#### Section 613.1

Jim Richardson questioned location of mixing valve at source as opposed to 1070 device. Happy with clarifications.

#### Ohio Mechanical Code

No comments

#### Residential Code of Ohio (3:09)

#### Swimming Pools

Tim Payne stated that the reference to NEC Article 680 should be in Chapter 34 rather than in Chapter 1.

Pete Baldauf stated his discussion with RCAC that the reference to Article 680 needed to be in the scoping to be able to go past the first disconnect.

#### Incidental Inspections

DeWayne Jenkins asked about the general consensus from earlier discussion. Staff summarized earlier discussions and questioned whether incidental inspections will be knowledgeable enough to competently perform these inspections.

Don Hutchinson again stated his concerns allowing incidental inspections and that the practice of building inspection is near and dear to him.

Ron Schmitt asked how a plumbing inspector cannot inspect the wiring on a water heater how can the plumbing contractor do the electric work. If the contractor can hook it up why can't we trust the plumbing inspector look at 3 wires and the ground.

Pete Baldauf asked whether this would be in accordance with Revised Code. Staff responded stated yes.

#### Section 302.1, Exception 6

Richard Nelson asked about the intent of the change. Stated that exception 2 is a full exception and questioned the need for additional exception.

#### Figure 502.2.2.3

Shane Vilasineekul stated that 2012 IRC corrected section – struck "as applicable" and then building officials of Washington State submitted code change proposal approved in the 2015 IRC allows for alternative detail that does not require access inside of the structure.

<u>Section 2411</u> General discussion on CSST between attendees.