



July 25, 2024

Kevin S. Reardon  
Ohio State Fire Marshal  
Ohio Department of Commerce | Division of State Fire Marshal (SFM)  
77 South High Street, 23rd Floor  
Columbus, OH 43215

RE: 2024 Proposed Changes Ohio Fire Code (OFC) (Ohio Administrative Code sections 1301:7-7-01 - 1301:7-7-80).

Dear Mr. Reardon:

The Zero Emission Transportation Association (ZETA) is an industry-backed coalition of over 50 member companies advocating for 100% electric vehicle (EV) sales. ZETA is committed to supporting policies that drive EV adoption, create hundreds of thousands of jobs, dramatically improve public health, and significantly reduce emissions. Our coalition spans the entire EV supply chain and includes vehicle manufacturers, charging infrastructure manufacturers and network operators, battery manufacturers and recyclers, electricity providers, and critical minerals producers, among others.

As representatives of the EV supply chain, specifically electric vehicle supply equipment (EVSE) manufacturers, ZETA and its members remain committed to ensuring the safety of consumers, first responders, and any other individuals who work closely with these products. Safety remains integral to each aspect of the vehicle supply chain. From planning and design to manufacturing and daily operations, the private sector is committed to upholding the highest safety standards to reduce or mitigate any risks in a vehicle's lifecycle and its corresponding infrastructure.

We write regarding the proposed changes to the Ohio Fire Code (OFC) (Ohio Administrative Code sections 1301:7-7-01—1301:7-7-80). Recognizing that the safety of consumers and first responders is a primary concern, we would like to offer comments outlining why the proposed changes may have unintended consequences for the EV industry. EVSE has been steadily deployed over the past decade through fire and electrical regulations developed by the National Fire Protection Association (NFPA) and corresponding state regulatory agencies, providing a framework for the safe installment and operation of EVSE.

## Sec.324 Electric Vehicle Charging Stations

### *Proposed Changes:*

323.5.1324.2 Location. Electric vehicle charging stations shall not be located in the following

Areas:

1. Below grade.
2. In open or enclosed public or private parking garages on any floor other than the highest uncovered floor of the parking garage. Electric vehicle charging stations may be located near or outside parking garages in accordance with the separation distances otherwise provided for in this section.

1. Not less than 15 feet (4572 mm) from any property line,
2. Not less than 50 feet (15 240 mm) from any building with combustibile exterior wall surfaces,
3. Not less than 30 feet (9144 mm) from any building with a 1-hour fire resistive exterior surface,
4. Not less than 30 feet (9144 mm) from any combustibile awning or canopy,
5. Not less than 50 feet (15 240 mm) from any of the following:
  1. Dispensing devices for flammable or combustibile liquids,
  2. Above ground or underground tanks, tank fill connections, remote or submersible pump transfer equipment, vapor recovery equipment and vents,
  3. The location of tank vehicles while such are filling or transferring flammable or combustibile liquids.

### ***ZETA Response:***

The proposed separation distances are a concern to industry stakeholders. These separation requirements significantly restrict new site development, especially instances where electric vehicle service providers (EVSPs) need to locate equipment near a property line. Requiring EVSPs or property owners to investigate wall and fire ratings before adding charging for each new site is onerous. Likewise, separation from canopies adds undue restrictions and, at worst, could limit or prevent siting new EVSE at existing gas stations, rest stops, or other facilities where canopies exist or are warranted. Additionally, similar provisions were proposed by NFPA last year and did not move forward due to several implementation issues.

From a safety perspective, the proposed changes in the OFC are unjustified. The presence of EV charging does not automatically increase the risk of an EV battery fire. EV

charging stations are equipped with multiple safety features to prevent and mitigate fire risks, including ground fault protection, overcurrent protection, thermal management, and automatic shutdown.

EVs do not present a greater fire hazard than internal combustion engine (ICE) vehicles. In fact, studies have concluded that the heat released from EV fires is less than or equal to the heat released from ICE fires.<sup>1</sup> Given that ICE vehicles and EVs pose a similar overall hazard, EVs and EV charging should not be singled out and penalized unilaterally in the fire code.

If OFC is concerned about vehicle fires in parking garages, fires can typically be contained to one vehicle with protection by automatic sprinklers.<sup>2</sup>

*Proposed Changes:*

323.5.3324.4 Impact protection. All electric vehicle charging stations shall be protected in accordance with Section 312.

***ZETA Response:***

As currently proposed, Section 3324.4 vehicle impact protection is infeasible. The guard post requirements would restrict cable reach to the vehicle and will not constitute an additional vehicle impact protection measure.

323.5.4324.5 Emergency shutdown and electrical disconnect. All electric vehicle charging stations shall have emergency shutdown devices or electrical disconnect switches which are approved and accessible to patrons and emergency responders. Electric vehicle charging station emergency shutdown devices and electrical disconnect switches shall comply with Sections 323.5.4.1324.5.1 through 323.5.4.4324.5.4.

***ZETA Response:***

The proposed requirements for emergency shutdown and electric disconnects are redundant, impractical, and prone to misuse. Disconnection methods are already in place for first responders. For example, individuals can cut the lock on the electrical switchgear, locate the main feeder breaker, turn it off, and confirm no alternating current (AC) hazard sources with their tools. As such, mandating all EVSE on the premises be powered down using a single device is impractical and may have unintended safety consequences, especially when there are multiple fast charging stations run by different

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<sup>1</sup>[https://www.researchgate.net/publication/343344348\\_Modern\\_Vehicle\\_Hazards\\_in\\_Parking\\_Structures\\_and\\_Vehicle\\_Carriers](https://www.researchgate.net/publication/343344348_Modern_Vehicle_Hazards_in_Parking_Structures_and_Vehicle_Carriers)

<sup>2</sup> <https://www.nfpa.org/news-blogs-and-articles/blogs/2024/07/12/parking-garages-and-evs>

service providers, as seen in commercial areas like shopping mall parking lots or highway rest stops. It would be extremely difficult, if not impossible, to link the electrical infrastructure of these separate stations to achieve a single point of power disconnection.

Requiring manual intervention to reset the emergency disconnect increases the risk of misuse or vandalism. Unlike traditional gas stations with staff on-site, charging stations are usually unattended. If someone misuses or accidentally activates the emergency disconnect, the site could be offline for hours or even days until service personnel can reset it.

*Proposed Changes:*

323.5.4.1324.5.1 Location. Electric vehicle charging station emergency shutdown devices and electrical disconnect switches may serve more than one electric vehicle charging station but shall be located not less than 20 feet (6096 mm) and not more than 30 feet (9144 mm) from each electric vehicle charging station. An emergency shutdown device or electrical disconnect switch shall be located at each end of a bank of electric vehicle charging stations.

323.5.4.2324.5.2 Shut down all electric vehicle charging stations. The use or activation of any emergency shutdown device or electrical disconnect switch that services an electric vehicle charging station shall de-energize all electric vehicle charging station equipment in the bank of charging stations.

***ZETA Response:***

Emergency disconnects or “e-stops” do not sufficiently increase public safety. Instead, they would provide a false sense of security for first responders because Direct Current Fast Charging (DCFC) chargers, if connected to the EV battery, may still be energized. Cutting the flow of electricity to the car will not reduce the propagation if a fire has already occurred, but an emergency disconnect might incentivize first responders to approach the charge posts and vehicles that are still energized, which could lead to a dangerous situation that could result in an electrical injury. A readily accessible means of disconnection is already required if a first responder chooses to engage the equipment. To disconnect power to a site, first responders should cut the lock on the electrical switchgear, locate the main feeder breaker, turn the handle to the OFF position, and verify the absence of AC hazard sources with available tools.

- Proposed Alternative language: “At least one emergency shutoff device or electrical disconnect shall be installed in approved locations not less than 20 ft or more than 100 ft from EV charging stations that they serve.”
- Additional Exception: When more than one emergency shutoff devices or electrical disconnects are provided for a bank of chargers, the 20ft minimum distance does not apply as long as each charging station served has at least one shutoff that is not less than 20ft away. This exception facilitates addition of shutoffs in these situations while preserving the ability to operate a disconnect from a safe distance for first responders.

Moreover, the technical issues of e-stops are currently being vetted and considered in the 2026 National Electric Code (NEC) development process, which is currently being considered by NFPA. Ohio should pause on making any state amendments that will likely conflict with the national consensus codes.

323.5.4.3324.5.3 Signage. All Notwithstanding the provisions of Section 102.1.1, all electric vehicle charging station emergency shutdown devices and electrical disconnect switches shall be provided with approved signs that state “Emergency Shutdown Device” or “Electrical Disconnect Switch” in block letters on a contrasting background. The location of the signs shall be approved by the local authority having jurisdiction

***ZETA Response:***

The requirement for signage stating “Emergency Shutdown Device” or “Electrical Disconnect Switch” should be clarified. The proposal uses the terms “Emergency Shutdown Device” and “Electrical Disconnect Switch” interchangeably, but the language should remain consistent across all different structures. The signage should state “Electrical Equipment Emergency Disconnect” to accurately reflect that the device is meant to disconnect the AC input to the EV charging station, not the vehicle itself.

***Proposed Changes:***

323.5.4.4324.5.4 Resetting. Reactivation of an electric vehicle charging station after a power outage or the use of an emergency shutdown device or electrical disconnect

***ZETA Response:***

Reactivating an electric vehicle charging station after a power outage or the use of an

emergency shutdown device would involve manual intervention to reset the emergency disconnect. See ZETA Response to 323.5.4324.5 Emergency shutdown and electrical disconnect.

Thank you for considering ZETA's comment. ZETA recommends that state leadership focus on educating and training first responders, parking facility operators, and code officials rather than proposing changes to the OFC that may discriminate against one class of equipment/system and against the public interest under the guise of safety regulations. We look forward to working with you to properly assess the proposed changes to ensure the safety of consumers and first responders.

Sincerely,

A handwritten signature in black ink, appearing to read 'AG', written in a cursive style.

Albert Gore  
Executive Director