This rule amends the New York State Uniform Fire Prevention and Building Code (the Uniform Code), 19 NYCRR Parts 1220, 1221, 1225, and 1227, by incorporating by reference a publication entitled the “2019 Energy Storage System Supplement (Revised September 2019)” which adds provisions to the Uniform Code relating to the installation, use, and maintenance of Energy Storage Systems (ESS).

The Notice of Emergency Adoption and Proposed Rule Making was published in the State Register on July 17, 2019. A public hearing was held on September 16, 2019. The Department of State (DOS) received the comments described below. The following assessment contains a summary of the comments submitted and an analysis of any issues raised by such comments.

COMMENT 1: Multiple comments were received stating that the way Sections R327.1 of the 2015 International Residential Code (2015 IRC), as amended, and 608.1 of the 2015 International Fire Code (2015 IFC), as amended, are currently written is confusing with respect to the applicability of specific requirements for residential systems. The commenters feel the provisions as currently written are leading to AHJs applying the requirements in 608.18 to all residential projects and is negatively impacting deployment of residential storage systems across the state.

RESPONSE TO COMMENT 1: ESS exceeding the Table 608.1 quantities are considered large enough to require specific risk-mitigation. ESS associated with Group R-3 and R-4 occupancies are regulated in Section 608.18. When the threshold in a residential occupancy exceed the values of Section R327.5, then the requirements of Sections 608.2 through 608.17.7.7 must be met. DOS believes this is clearly indicated. No change was made as a result of this comment.

Section R327.1 states "Energy storage system installations exceeding the permitted aggregate ratings in Section R327.5 shall be installed in accordance with Section 608.2 through 608.17.7.7 of the International Fire Code (as amended by the 2019 Energy Storage System Supplement)." The proponent's suggested language is in
conflict with this provision. The residential provisions in Section 608.18 of the 2015 IFC (as amended) and Section R327 of the 2015 IRC (as amended) are regulating the ESS that are less than or equal to 20 kWh, in addition to not being listed for commercial or utility use. Section 608.18 of the 2015 IFC (as amended) and Section R327 of the 2015 IRC (as amended) contain the same provisions. For one- and two-family dwellings and townhouses not more than three stories in height, the code user starts in R327.1. If they exceed the thresholds in R327.5, they are subject to the 2015 IFC (as amended) Section 608.2 through 608.17 provisions.

For a Group R-3 or R-4 occupancy, regulated by the 2015 International Building Code (2015 IBC) and the 2015 IFC, the user starts in Section 608.1 of the 2015 IFC. If they exceed the threshold of Section 608.18.4, they are subject to the provisions of Sections 608.2 through 608.17. Any system (residential, commercial, or utility) that is (1) regulated by the Uniform Code and (2) exceeds the thresholds in Table 608.1, is subject to the provisions contained in Sections 608.2 through 608.17. No change was made as a result of this comment.

COMMENT 2: A comment was received suggesting a revision to Section R327.2 with respect to equipment that is “listed and labeled for residential use in accordance with UL 9540”. UL 9540 testing does not differentiate between applications, so it is not currently possible to be listed and labeled for residential use. The commenter recommended removing the language “residential use” from this sentence.

RESPONSE TO COMMENT 2: The provision has been modified for clarity and consistency with the language of NFPA 855.

COMMENT 3: Multiple comments were received requesting clarification to Item 1.2 (Section R327) of the 2019 Energy Storage System Supplement dealing with the required fire separation between areas containing ESS and other areas of the dwelling.

RESPONSE TO COMMENT 3: The intent of this new section was to require fire separation in attached garages and utility closets that is the same as the current fire separation requirements in Section R302 of the 2015 IRC. To clarify this requirement, this section was revised to make the requirement explicitly clear by
prescriptively including the intended requirements from R302 of the 2015 IRC within Section R327 of the 2015 IRC, as added by the 2019 Energy Storage System Supplement.

COMMENT 4: A comment was received requesting clarification regarding the fire separation requirements for ESS in Table 509 of the 2015 IBC, as amended by the 2019 Energy Storage System Supplement. It appears that there is a conflict between what Table 509 requires and what Section 608 of the 2015 IFC, as amended by the 2019 Energy Storage System Supplement, requires.

RESPONSE TO COMMENT 4: Table 509 of the 2015 IBC, as amended by the 2019 Energy Storage System Supplement, was revised to remove the conflict and to coordinate the provisions of the 2015 IBC and the 2015 IFC.

COMMENT 5: A comment was received requesting that outdoor ESS with capacities below 250 kWh be exempt from the provisions of this rule. The commenter stated that portable, generator-style ESS cannot compete with gasoline generators when burdened by these regulations. The commenter further stated portable generators have little-to-no regulations in the Uniform Code.

RESPONSE TO COMMENT 5: The Uniform Code regulated portable generators for emergency power under Section 2702 of the 2015 IBC. The proponent offered no technical data or information in support of their position to completely deregulate outdoor, mobile ESS less than 250 kWh. No change was made as a result of this comment.

COMMENT 6: Multiple comments were received requesting the definition of a mobile ESS be clarified to indicate that mobile ESS do not include electric vehicles.

RESPONSE TO COMMENT 6: The definition was changed to clarify that motor vehicles and stand-alone car batteries are exempt. The exemption for small rechargeable appliances is covered under the provisions of Section R327.2 of the 2015 IRC and Table 608.1 of the 2015 IFC. Self-propelled outdoor units cannot be equated to motor vehicles and therefore, were not exempted.
COMMENT 7: A comment was received suggesting a modification to Table 608.1 footnote c to clarify that when a lead-acid battery exceeds 50 gallons of electrolyte, it is considered to have exceeded the threshold of the Table.

RESPONSE TO COMMENT 7: The comment as proposed represents a clearer statement of the intended requirement. The footnote has been revised as suggested.

COMMENT 8: A comment was received requesting that a process be introduced to accommodate new, safer technologies rather than categorizing them as “other battery technologies” and applying a low threshold.

RESPONSE TO COMMENT 8: The reason for the lower threshold is due to the unknown risks associated with new technology. Once a new technology has been tested and shown to be safer in practice, these provisions can be revised to allow for more allowances. In the interim, if there is sufficient documentation that shows a newer technology can be used that does not require specific code provisions, a variance can be sought to bring relief. No change was made as a result of this comment.

COMMENT 9: A comment was received expressing concern that electric vehicle charging equipment located outdoors would be subject to these regulations.

RESPONSE TO COMMENT 9: It is not the intent of Section 608.2 of the 2015 IFC, as amended, to regulate charging stations located outside buildings. This is consistent with the regulations of the New York City Fire Department for similarly sized stations. An exception was added for clarification.

COMMENT 10: A comment was received requesting clarification on what “where approved by the fire code official” means.

RESPONSE TO COMMENT 10: The terms "approved," "fire code official," and "authority having jurisdiction" are defined. DOS is of the opinion that the provision as stated is clear within the context of the italicized terms. No change was made as a result of this comment.
COMMENT 11: A comment was received suggesting additional training be offered to educate CEO’s about the construction process for ESS. Often, ESS projects develop and change during the approval process. The required construction documents may not be in their final state when submitting an application for a building permit. As such, a CEO should expect revisions throughout the process as a project develops.

RESPONSE TO COMMENT 11: DOS recognizes this issue and agrees that additional efforts can be made to educate CEO’s about the unique construction features and processes that ESS present. This comment has been forwarded to the Education Unit in the Division of Building Standards and Codes. No change was made as a result of this comment.

COMMENT 12: A comment was received requesting that the construction documents only need to be provided when applying for a building permit, rather than an operational permit.

RESPONSE TO COMMENT 12: The proposed change would mean that construction documents are not required with the application for an operating permit, without any justification. Operation and maintenance manuals, along with any other changes to specifications, repairs, etc. need to be communicated to the AHJ. Requiring up-to-date documentation for an operational permit, seems appropriate. No change was made as a result of this comment.

COMMENT 13: A comment was received requesting clarification on how the time to safely evacuate is determined.

RESPONSE TO COMMENT 13: The determination will be made by the fire protection registered design professional. This is the typical practice for other areas in the code where determinations of this nature are required. No change was made as a result of this comment.

COMMENT 14: A comment was received requesting the inclusion of language in the rule accepting an ‘approved equivalent’ test to the UL 9540A test. The commenter urges DOS to work closely with AHJs and
code enforcement officials to educate and inform them on what constitutes an equivalent test. In addition, the commenter requested the DOS provide a list of approved equivalents and laboratories.

RESPONSE TO COMMENT 14: The language of the current rule states "or approved equivalent." DOS recognizes that standards and tests are evolving and there needs to be a measure of flexibility. As stated before, "Approved" and "listed" are defined terms. The burden of proof that the proposed testing standard is equal lays with the developer. Hopefully the regulations serve as an incentive to develop other compliance means. Should this prove otherwise, DOS can issue a technical bulletin to assist regulated parties.

COMMENT 15: A comment was received for DOS to clarify in the rule what is expected of the fire mitigation personnel. The commenter states the rule leaves open the scope and breadth of the duties of the fire mitigation personnel and recommends that language should be added indicating that this person’s role is to be called upon” when there is a battery event, as determined by the AHJ or Battery Management System.”

RESPONSE TO COMMENT 15: In the opinion of DOS, Section 608.7.1 clearly outlines the duties of fire mitigation personnel "where required by the fire code official." No change has been made in response to this comment.

COMMENT 16: A comment was received requesting that a time period be defined which is bounded by remediation of “fire or other event” discussed in 608.7. Once this time period is defined, it may necessitate different levels of fire mitigation personnel involvement.

RESPONSE TO COMMENT 16: The proposed change necessitates further analysis. DOS will keep the language based on ICC’s draft 2021 IFC and NFPA 855, leave the provision under the control of the fire code official, and attempt to find a reasonable time frame through the ICC consensus process. No change was made as a result of this comment.

COMMENT 17: Multiple comments were received regarding the definition of “peer review,” the definition of “registered design professional,” and the need for Section 608.8 in the proposed rule. Commenters
noted that, in their opinion, the peer review requirement is not necessary. Commenters believe that submission of plans by a licensed engineering professional (per Section 608.3) is enough.

RESPONSE TO COMMENT 17: DOS notes that the peer review provisions are optional, at the discretion of an AHJ. This is an attempt to give the CEO a credible resource to assist them in the review of these installations. The peer reviewer can be a specialist and does not need to be a registered design professional. The only requirement is that proof of expertise needs to be provided and documented. In addition, the function and qualifications of the peer reviewer are expounded in Section 608.8. A "registered design professional" is a defined term. DOS believes that the provision is sufficiently clear as is. No change was made as a result of this comment.

COMMENT 18: A comment was received suggesting the rule should dictate when the Operation and Maintenance Manual (O&M Manual) should be provided. The commenter believes this manual should be provided before the ESS is commissioned into service.

RESPONSE TO COMMENT 18: The current rule states that the O&M Manual is required "before the system is put into operation." DOS believes this is sufficient. No change was made as a result of this comment.

COMMENT 19: A comment was received requesting that approved equivalents be included as alternatives to being listed to UL 9540 in Section 608.10.1. The commenter’s stated reason was to allow for future testing standards to be accepted or developed that may better address this changing technology.

RESPONSE TO COMMENT 19: DOS agrees, as this is the approach taken with other standards in this rule, such as UL 9540A. The requested change has been incorporated.

COMMENT 20: A comment was received suggesting the Supplement should be modified to include a clear definition of what a retrofit is and what a repair is. As written, the commenter believes it is not clear at what point work being done would cease to be considered a retrofit and be classified as a new installation, which would trigger additional requirements be met.
RESPONSE TO COMMENT 20: The language of Section 608.10.6 establishes the distinction as follows: "Repairs with other than identical parts shall be considered a retrofit." No change has been made in response to this comment.

COMMENT 21: A comment was received requesting clarification on what a “replacement” means and how this definition affects augmentation. The commenter stated that augmentation could occur every 2-4 years, causing an unnecessary burden if permits are required.

RESPONSE TO COMMENT 21: The requirement is applicable to the “system, and not to individual components.” A replacement using identical parts is considered a repair as indicated in Section 608.10.6. If an entire system is being replaced every 2-4 years, then it is reasonable to expect that a new permit will be required. No change has been made in response to this comment.

COMMENT 22: A comment was received requesting outdoor installations be specially exempted from the ventilation requirements.

RESPONSE TO COMMENT 22: The DOS believes the exemption could have been reasonably inferred, however, the words "installed outdoors" were added to Section 608.11.7 in response to this comment.

COMMENT 23: A comment was received requesting that specific size, color, material, and location requirements be introduced for warning signs in relation to ESS installations.

RESPONSE TO COMMENT 23: Section 608.11.8 of the 2015 IFC, as amended by the 2019 Energy Storage System Supplement, requires signage to meet NFPA 70 requirements for signage. NFPA 70 references various standards and requirements, including but not limited to ANSI Z535.4, which provides guidelines for the appropriate design of warning signs. When enforcing the signage requirements, the ESS signage will need to be approved and acceptable to the code enforcement officer, in accordance with both the Uniform Code and the Authority Having Jurisdiction’s own rules and regulations. If there are specific signage requirements that a local Authority Having Jurisdiction feels are necessary to protect their firefighters, nothing in the code prevents
the Authority Having Jurisdiction from adopting a local sign standard for installations within that jurisdiction.

No change has been made in response to this comment.

COMMENT 24: A comment was received requesting the maximum allowable quantities be raised to 1,000 kWh (1 MWh) from the current 600 kWh to address concerns about additional, unnecessary costs on medium-sized, behind-the-meter projects.

RESPONSE TO COMMENT 24: No justification for this increase was given. At this point, we do not have a feasible reason to accommodate this comment. The current provisions align with the model codes and published referenced standards such as NFPA 855. No change was made as a result of this comment.

COMMENT 25: A comment was received suggesting the addition of a required yearly inspection for ESS by the AHJ. The proponent’s reason includes allowing the AHJ to not only verify the integrity of the installations but also of the many associated safety systems.

RESPONSE TO COMMENT 25: The Part 1203-compliant enforcement program requires inspections at a period not to exceed 3 years. The AHJ has the authority to require more frequent monitoring as a "special condition imposed in connection with the issuance of the building permit." Further, "a service record log" is required as part of the O&M Manual, which "shall be retained onsite at an approved location." However, stating that the manual must be "available to the fire code official" was added for further clarity.

COMMENT 26: A requirement should be put into the 2019 Energy Storage System Supplement requiring development of Emergency Operations plans. The NYSERDA New York Battery Energy Storage System Guidebook has an example of the content requirements for an Emergency Operations Plan in Appendix 4. Many fire departments may not have Standard Operating Procedures (SOP) regarding these types of systems yet, which may result in a gap in response time and management. SOPs are the procedures each individual fire department has for emergency situations.
RESPONSE TO COMMENT 26: While the comment appears to have merit, it constitutes a new requirement that needs further analysis and hasn't been submitted for public review and comment. DOS will duly research the requirement and, if appropriate, implement at the next reasonable opportunity. Currently, these provisions can still be implemented per NYSERDA's manual or as part of a local municipality's requirements. No change was made as a result of this comment.

COMMENT 27: Multiple comments were received requesting increasing the grouping thresholds in Section 608.12.1.

RESPONSE TO COMMENT 27: No technical justification for this increase was given. At this point, we do not have a feasible reason to accommodate this comment. The current provisions align with the model codes and published referenced standards such as NFPA 855. No change was made as a result of this comment.

COMMENT 28: A comment was received stating that lead acid battery installations are currently well understood. Requiring these installations to be divided up into smaller and smaller groups appears onerous and unnecessary. It is recommended to add an exception for these installations for because these installations have not had incidents related to these factors.

RESPONSE TO COMMENT 28: DOS believes that Exception 2 as currently written, accomplishes the same goal while providing large scale fire testing as the basis for which the fire code official may approve larger capacities or smaller separation distances. No change was made as a result of this comment.

COMMENT 29: A comment was received suggesting a requirement should be included for a smoke/gas purge system on large systems. The smoke/gas purge system allows for a switch to be turned on by first responders that engages an active smoke/gas vent to prevent breach events. When this system is engaged it can begin providing air changes to the system volume which can clear smoke/dangerous gases without exposing personnel to the interface between a possibly fuel rich environment and outside oxygen. This may also prevent first responders from having to open vent holes in energy storage systems during emergency operations.
RESPONSE TO COMMENT 29: While the comment appears to have merit, it constitutes a new requirement that needs further analysis and hasn't been submitted for public review and comment. As currently written, the regulations do require exhaust ventilation in Table 608.13 and Section 608.13.1. DOS will duly research potential additional requirements and, if appropriate, implement at the next reasonable opportunity. No change was made as a result of this comment.

COMMENT 30: A comment was received suggesting that the approval of the fire code official regarding the size and separation limits in Section 608.12.1 should not be required when completing large-scale fire testing. The commenter’s reason was to prevent an owner from undertaking the large-scale fire testing only to have their project rejected by a fire code official.

RESPONSE TO COMMENT 30: DOS agrees that requiring large scale fire testing for this specific provision in addition to the approval of the fire code official is redundant. The purpose of the large-scale fire testing is to establish the baseline design parameters for a safe installation. Once completed, the system designer can provide adequate safety measures to address the system risks. The additional approval of the fire code official is an unnecessary redundancy and was removed from Section 608.12.1.

COMMENT 31: A comment was received suggesting a requirement should be introduced requiring the posting of contact information for the manufacturer or responsible party to inform maintenance/emergency operations. In any emergency or maintenance event there are extremely complicated and specific systems that vary from installation to installation. Without this information first responders may not know how to approach a situation safely and during maintenance the installation could be unnecessarily damaged. This can prevent a simple situation from becoming a harder to deal with situation.

RESPONSE TO COMMENT 31: Contact information is already part of the signage requirement. Language was added to require that the rated capacity of the system be stated on the required signage. The
recommendation will provide a greater degree of safety during an emergency with no impact to the developer. Section 608.11.8 was modified as a result of this comment.

COMMENT 32: A comment was received requesting mobile ESS be exempt from requiring permits.

RESPONSE TO COMMENT 32: While we do not regulate over-the-road vehicles, mobile ESS are "deployed." These requirements are similar to those for temporary tents and temporary buildings; permits are required to ensure safe installation and operation. In addition, permits are subject to the minimum program requirements of Title 19 NYCRR Part 1203. These are minimum program requirements and local AHJ’s can require operating permits as needed. Historically, it has been left for an AHJ to decide operating permit requirements for their jurisdiction. No change was made as a result of this comment.

COMMENT 33: A comment was received requesting that DOS clarify the specific requirements contained for fire suppression systems as they relate to small non-walk-in systems.

RESPONSE TO COMMENT 33: The fire-suppression will be dependent on the design of the system and its location. Non-walk-in units (aka reach in or cabinet units) that are installed outdoors may not need fire suppression. If these units are installed in a room, they would. In addition, the fire code official can approve remote, dedicated use buildings to omit this system altogether. DOS believes the rule as written is sufficiently clear. No change was made as a result of this comment.

COMMENT 34: A comment was received suggesting non-water-based fire-suppression systems be acceptable, without the need for approval by the fire code official.

RESPONSE TO COMMENT 34: The type of system is typically subject to the approval of the CEO. This is not unique to ESS, as this is the case for fire suppression through the code. As written, the CEO can approve 1 of these 3 options. No change was made as a result of this comment.

COMMENT 35: A comment was received recommending the maximum enclosure size be expressed in terms of volume rather than linear dimensions.
RESPONSE TO COMMENT 35: The proposed change allows flexibility in the design of facilities without compromising safety. The units indicating the maximum size of facilities were changed to the equivalent volume, expressed in cubic feet.

COMMENT 36: A comment was received requesting the allowance of reduced clearing areas if warranted by results of large-scale fire testing.

RESPONSE TO COMMENT 36: This is consistent with Section 608.12.6 and other similar sections. This modification has been incorporated.

COMMENT 37: A comment was received requesting clarification of when gas sensors are required.

RESPONSE TO COMMENT 37: Gas detection will be required where the technology has been shown to have the potential to release hazardous gases. Table 608.13 identifies when exhaust ventilation is required. If a manufacturer or owner feels they do not need a system, a variance can be sought after, with the appropriate documentation. No change was made as a result of this comment.

COMMENT 38: A comment was received requesting clarification of the meaning of the “largest battery” meant a single cell.”

RESPONSE TO COMMENT 38: The word "battery" is here used as a generic term consistent with Table 608.13. No change was made as a result of this comment.

COMMENT 39: Multiple comments were received requesting the required clearance for an installation to be considered remote. Suggestions included reducing the distance from 100 feet to 50 feet for systems below 1000 kWh and to 10 feet for systems at or below 250 kWh.

RESPONSE TO COMMENT 39: No justification for this decrease was given. At this point, we do not have a feasible reason to accommodate this comment. The current provisions align with the model codes and published referenced standards such as NFPA 855. No change was made as a result of this comment.
COMMENT 40: A comment was received requesting the separation distance in Sections 608.15.3 and 608.16.3 be reduced to 3 ft for intermediate systems below 250 kWh in outdoor, rooftop, and parking garage installations.

RESPONSE TO COMMENT 40: No justification for this decrease was given. At this point, we do not have a feasible reason to accommodate this comment. The current provisions align with the model codes and published referenced standards. No change was made as a result of this comment.

COMMENT 41: A comment was received requesting that mobile ESS that are less than 250 kWh that are charged outdoors or in dedicated use buildings within the minimum setbacks not be required to include a location plan.

RESPONSE TO COMMENT 41: No justification for this was given. At this point, we do not have a feasible reason to accommodate this comment. If the application of these provisions adversely effects small, portable generator style ESS, the DOS can address it through the appropriate means. The current provisions align with the model codes and published referenced standards such as NFPA 855. No change was made as a result of this comment.

COMMENT 42: A comment was received requesting that operating permits not be required for ESS deployments that are less than 250 kWh.

RESPONSE TO COMMENT 42: The requirement for an operating permit will depend on the local AHJ program requirements. Title 19 NYCRR Part 1203 does specify the minimum operating permit requirements but an AHJ will determine their needs. These requirements are implied with "where an operating permit is required.” This is how much of the fire code is written. If the application of these provisions adversely effects small, portable generator style ESS, DOS can address it through the appropriate means. The current provisions align with the model codes and published referenced standards. No change was made as a result of this comment.
COMMENT 43: A comment was received requesting the clearance to occupied buildings in Section 608.17.5.1 be reduced to 10 ft when a mobile ESS is in transit.

RESPONSE TO COMMENT 43: No justification for this decrease was given. At this point, we do not have a feasible reason to accommodate this comment. The current provisions align with the model codes and published referenced standards. No change was made as a result of this comment.

COMMENT 44: A comment was received requesting that Section 608.17.6 be modified to allow the charging and storage of intermediate ESS to be at any location provided that minimum setbacks are maintained.

RESPONSE TO COMMENT 44: Charging and storage of mobile systems has the potential of taking place inside a building subject to the Uniform Code. It also has the potential of resulting in aggregate quantities that exceed the thresholds of Table 608.1. There is no reasonable justification to compromise safety in either scenario without mitigating the potential hazard. No change was made as a result of this comment.

COMMENT 45: A comment was received requesting that the 30-day time limit in Section 608.17.7 be deleted or “lengthened significantly” for mobile ESS.

RESPONSE TO COMMENT 45: A time limit must be assigned to temporary installations by definition. If the intention of a "mobile" system is to be permanent, other safety features may be required. The limited duration is what allows a temporary operation to not require permanent safety features. The current provisions align with the model codes and published referenced standards such as NFPA 855. No change was made as a result of this comment.

COMMENT 46: A comment was received requesting adding “unless approved by fire inspector” to Section 608.18.4.

RESPONSE TO COMMENT 46: The suggested change is not appropriate. It does not give the fire code official a legitimate basis on which to make the determination. This modification could allow very large...
systems to be installed in residential occupancies, without the potential safety requirements that would be required in a commercial installation of similar capacity. No change was made as a result of this comment.

COMMENT 47: A comment was received asking for DOS to clarify which gases each gas detection system should be detecting. The commenter noted that this could ultimately be different for each battery type and chemistry, each manufacturer, and each cell.

RESPONSE TO COMMENT 47: As stated in the commenter’s reason, this varies. It is beyond DOS’s expertise to determine each gas that each ESS type could potentially generate. As such, each manufacturer will need to supply this information as part of their submittal. This is partially the reason for the large-scale fire testing. The rule is written to prevent excluding a toxic or hazardous gas. In addition, Section 916 applies to other uses, not just ESS. No change was made as a result of this comment.

COMMENT 48: A comment was received asking for DOS to clarify who decides what locations are approved locations.

RESPONSE TO COMMENT 48: The word "approved" is a defined term, stating “acceptable to the fire code official.” No change was made as a result of this comment.

COMMENT 49: A comment was received requesting clarification if Section 916.8 requires carbon monoxide detectors.

RESPONSE TO COMMENT 49: Carbon monoxide requirements are provided in Section 915 of the 2015 IFC, as amended by the 2017 Uniform Code Supplement. Section 916.8 simply means that, where a carbon monoxide alarm is provided, the carbon monoxide alarm needs to be distinct from the gas detection alarm. No change was made as a result of this comment.

COMMENT 50: A comment was received asking for confirmation that the gas detection system can still be connected to the fire suppression system, but not the fire alarm system.
RESPONSE TO COMMENT 50: Section 916.10 states that gas detection systems cannot be connected to a fire alarm system unless approved by the fire code official and allowed by the fire alarm equipment manufacturer. No change was made as a result of this comment.

COMMENT 51: A comment was received in support of this rule and commending the Department of State for its work on implementing needed regulations for the installation of ESS.

DESCRIPTION OF CHANGES MADE IN THE RULE

This rule will amend the current versions of Parts 1220, 1221, 1225, and 1227 of Title 19 of the Official Compilation of Codes, Rules and Regulations of the State of New York (NYCRR) by adding references to the 2019 Energy Storage System Supplement (Revised September 2019). Non-substantive changes were made to the rule as originally proposed.

Changes to Title 19 NYCRR Parts 1220, 1221, 1225, and 1227

The following changes were made to the Sections 1220.1, 1221.1, 1225.1, and 1227.1 of Title 19 NYCRR.

Part 1220, Section 1220.1(b)(2): The publication entitled “2019 Energy Storage System Supplement” has been changed to “2019 Energy Storage System Supplement (Revised September 2019)” and the publication date has been changed from June 2019 to September 2019.

Part 1221, Section 1221.1(b)(2): The publication entitled “2019 Energy Storage System Supplement” has been changed to “2019 Energy Storage System Supplement (Revised September 2019)” and the publication date has been changed from June 2019 to September 2019.

Part 1225, Section 1225.1(b)(2): The publication entitled “2019 Energy Storage System Supplement” has been changed to “2019 Energy Storage System Supplement (Revised September 2019)” and the publication date has been changed from June 2019 to September 2019.
Part 1227, Section 1227.1(b)(2): The publication entitled “2019 Energy Storage System Supplement” has been changed to “2019 Energy Storage System Supplement (Revised September 2019)” and the publication date has been changed from June 2019 to September 2019.

Summary of Changes Made to the 2019 Energy Storage System Supplement

General Changes

Minor formatting changes were made to the 2019 Energy Storage System Supplement. As an example, spaces were added or removed, and certain text was indented. In addition, the publication date was revised on the cover page.

Changes to Part 1 (Amendments to the 2015 International Residential Code)

Item 1.1: Modified the definition of “Energy Storage System” to exclude electric motor vehicles and stand-alone car batteries. See comment 6.

Item 1.2 Section R327.2: Revised to remove the language referring to ESS being listed and labeled for residential use. See comment 2.

Item 1.2 Section R327.8: Revised to clarify the intention of the section by the inclusion of specific language of Section R302 rather than rely on a code reference to Section R302. See comment 3.

Changes to Part 3 (Amendments to the 2015 International Building Code)

Item 3.3 Table 509: Revised to coordinate with the 2015 IFC (as amended). See comment 4.

Changes to Part 4 (Amendments to the 2015 International Fire Code)

Item 4.1: Modified the definition of “Energy Storage System” to exclude electric motor vehicles and stand-alone car batteries. See comment 6.

Item 4.3 Section 608.1: Revised to remove the reference to one- and two-family dwellings and townhouses. This was an error as these occupancies are regulated in the 2015 IRC, as amended.
**Item 4.3 Table 608.1**: Modified footnote “c” to indicate the lead-acid ESS installations in excess of 50 gallons of electrolyte have exceeded the threshold of Table 608.1. See comment 7.

**Item 4.3 Section 608.2**: Modified to include a new exception to exclude outdoor stationary vehicle charging stations. See comment 9.

**Item 4.3 Section 608.9.2**: Modified the section to indicate the Operation and Maintenance Manual shall be available to the fire code official. See comment 25.

**Item 4.3 Section 608.10.1**: Modified the provision to allow approved UL 9540 equivalent listings to be acceptable. See comment 19.

**Item 4.3 Section 608.11.7**: Modified the provision to clarify the intention of this provision to apply to ESS installed indoors. See comment 22.

**Item 4.3 Section 608.11.8**: Modified the provision to require the signage to list the ESS rated capacity and that the contact person needs to have the technical knowledge to handle system faults. See comment 31.

**Item 4.3 Section 608.12.1**: Modified Exception 2 to remove the language “the fire code official may approve” and adding “shall be permitted.” See comment 30.

**Item 4.3 Section 608.12.6**: Modified the provision to limit the maximum enclosure size in cubic feet rather than linear dimensions. See comment 35.

**Item 4.3 Section 608.12.7**: Modified the provision to add an exception for reduced clearances when large-scale fire testing is used. See comment 36.

**Item 4.3 Section 608.15.4**: Revised to coordinate with the change resulting from revising 608.12.7.

**Item 4.3 Section 608.18.1**: Revised to remove the language referring to ESS being listed and labeled for residential use. See comment 2.

**Item 4.3 Section 608.18.7**: Revised to coordinate with the change resulting from revising R327.8. See comment 3.