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Department of Business and Professional Regulation Deputy Agency Clerk	
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## DS 2012-081

September 25, 2012

Florida Building Commission  
Request for Declaratory Statement

Subject: Applicability of the FS553.844 (4) to Electrical Generator Set Enclosures.

Background: Advanced Manufacturing & Power Systems, Inc., an approved Modular Building manufacturer per 9B-1, requests that the Commission review and clarify the following areas of the Code.

Gentlemen,

Advanced Manufacturing & Power Systems (AMPS) is an approved Modular Building Manufacturer and also offers Florida Approved Product for use in High Velocity Hurricane Zones (HVHZ) in the State of Florida. The majority of these enclosures are to protect electrical generating sets from the elements, as well as to provide sound reduction. There is a great amount of confusion in the electrical generator community regarding the applicability of the Code to these enclosures.

Whereas:

1. DCA09-DEC260 declared that electrical generator enclosures are Buildings/Structures and are regulated under the code.
2. FS553.844 (4) states "Notwithstanding the provisions of this section, exposed mechanical equipment or appliances fastened to a roof or installed on the ground in compliance with the code using rated stands, platforms, curbs, slabs, or other means are deemed to comply with the wind resistance requirements of the 2007 Florida Building Code, as amended. Further support or enclosure of such mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code. This subsection expires on the effective date of the 2013 Florida Building Code."
3. FS553.844 (4) references 2007 of the Florida Building Code. Florida Building Code 2010 is now the controlling edition. Does the 2007 edition still apply?
4. Electrical Generating Equipment is critical to the operation and safety, including Life Safety, of most facilities on which they are utilized, including Hospitals, Nursing homes, and Enhanced Public School Safety Shelters. This Generating equipment is required to be protected per Section 1626 as defined in Sections 419, 420, and 423 of the Florida Building Code.
5. The loss of these generating units during a wind event could be disastrous for the facility to be protected. Without power, the facility can not function. Section 1604.5 of the Florida Building Code 2010

Edition specifically identifies Power Generating Facilities that support Risk Categories III and IV as being required to be protected.

Additionally, if not properly designed, tested, and installed per the Florida Building Code, these items could be torn asunder and become missiles themselves and a hazard to the general public.

6. Maintaining State Approvals, Inspections, and Labeling is a cost not borne by non-certified enclosure providers. This cost creates a situation in which Certified and Approved Products are not competitive.

Request:

1. A formal declaration from the Commission determining whether FS553.844 (4) applies to Electrical Generator Set Protective Enclosures, or whether these enclosures are exempt from this directive as they have been determined to be Buildings/Structures.
2. Below are situations that have been presented to Advanced Manufacturing & Power Systems by our Clients and Potential Clients for clarifications.

Situations:

1. A Client intends to install an electrical generator set in an enclosure to provide emergency backup power to a hospital in the event of a loss of utility power. There will be no other debris impact protection aside from the generator enclosure.
  - a. According to FBC 419.4.2.9.6 “The emergency generator(s) shall be air or self-contained liquid cooled and it and other essential electrical equipment shall be installed in a protected area(s) designed and constructed to meet the structural requirements of the code and debris impact requirements of Sections 1626.2 through 1626.4”.
  - b. Is the generator enclosure required to be tested and approved per Section 1626 and bear either appropriate Florida Product Approval numbers or Miami-Dade Notice of Acceptance approval?
  - c. Does FS 553.844 (4) supersede the requirements of FBC 419.4.2.9.6?
2. A Client intends to install an electrical generator set in an enclosure to provide emergency backup power to a Nursing Home in the event of a loss of utility power. There will be no other debris impact protection aside from the generator enclosure.
  - a. According to FBC 420.4.2.9.6 “The emergency generator(s) shall be air or self-contained liquid cooled and it and other essential electrical equipment shall be installed in a protected area(s) designed and constructed to meet the

structural requirements of the code and debris impact requirements of Sections 1626.2 through 1626.4”.

- b. Is the generator enclosure required to be tested and approved per Section 1626 and bear either appropriate Florida Product Approval numbers or Miami-Dade Notice of Acceptance approval?
        - c. Does FS 553.844 (4) supersede the requirements of FBC 420.4.2.9.6?
  3. A Client intends to install an electrical generator set in an enclosure to provide emergency backup power to an Enhanced Hurricane Protection Area (EHPA) as part of an Educational Facility Public Shelter in the event of a loss of utility power. There will be no other debris impact protection aside from the generator enclosure.
    - a. According to FBC 423.25.5 “When generators are installed, the facility housing the generator, permanent or portable, shall be an enclosed area designed to protect the generators from wind and missile impact. Air intakes and exhausts shall be designed and installed to meet the wind load and missile impact criteria. Generators hardened by the manufacturer to withstand the area’s design wind and missile impact criteria shall be exempt from the enclosed area criteria requirement.”
    - b. Is the generator enclosure required to be tested and approved per Section 1626 and bear either appropriate Florida Product Approval numbers or Miami-Dade Notice of Acceptance approval?
    - c. Does FS 553.844 (4) supersede the requirements of FBC 423.25.5?
  4. A Client intends to install an electrical generator set in an enclosure to a commercial facility located in a High Velocity Hurricane Zone (HVHZ) to provide emergency backup power in the event of a loss of utility power. The generator Set and enclosure will be installed on the roof of the facility. There will be no other debris impact protection aside from the generator enclosure.
    - a. As DCA09-DEC260 declared that electrical generator enclosures are Buildings/Structures and are regulated under the code.
    - b. According to FBC 1601.1 “The provisions of this chapter shall govern the structural design of buildings, structures and portions thereof regulated by this code.  
**Exception:** Buildings and structures located within the high-velocity hurricane zone shall comply with the provisions of Sections 1615 through 1626, and, as applicable in flood hazard areas, Section 1612.”
    - c. Is the generator enclosure required to be tested and approved per Section 1626 and bear either appropriate

Florida Product Approval numbers or Miami-Dade Notice of Acceptance approval?

- d. Does FS 553.844 (4) supersede the requirements of FBC 1601.1?
5. A Client intends to install an electrical generator set in an enclosure to a commercial facility located in a High Velocity Hurricane Zone (HVHZ) to provide emergency backup power in the event of a loss of utility power. The generator Set and enclosure will be installed on the ground floor of the facility. There will be no other debris impact protection aside from the generator enclosure.
  - a. As DCA09-DEC260 declared that electrical generator enclosures are Buildings/Structures and are regulated under the code.
  - b. According to FBC 1601.1 “The provisions of this chapter shall govern the structural design of buildings, structures and portions thereof regulated by this code.  
**Exception:** Buildings and structures located within the high-velocity hurricane zone shall comply with the provisions of Sections 1615 through 1626, and, as applicable in flood hazard areas, Section 1612.”
  - c. Is the generator enclosure required to be tested and approved per Section 1626 and bear either appropriate Florida Product Approval numbers or Miami-Dade Notice of Acceptance approval?
  - d. Does FS 553.844 (4) supersede the requirements of FBC 1601.1?
6. A Client intends to install an electrical generator set in an enclosure to a commercial facility located in a Non-High Velocity Hurricane Zone (HVHZ) to provide emergency backup power in the event of a loss of utility power.
  - a. As DCA09-DEC260 declared that electrical generator enclosures are Buildings/Structures and are regulated under the code.
  - b. FS 553.36 (13) states “Manufactured building”, “modular building,” or “factory-built building” means a closed structure, building assembly, or system of subassemblies, which may include structural, electrical, plumbing, heating, ventilating, or other service systems manufactured in manufacturing facilities for installation or erection as a finished building or as part of a finished building, which shall include, but not be limited to, residential, commercial, institutional, storage, and industrial structures. The term includes buildings not intended for human habitation such as lawn storage buildings and storage sheds manufactured and assembled offsite by a manufacturer certified in

conformance with this part. This part does not apply to mobile homes.”

- c. According to FS553.37 (3) “After the effective date of the Florida Building Code, no manufactured building, except as provided in subsection (12), may be installed in this state unless it is approved and bears the insignia of approval of the department and a manufacturer’s data plate”
- d. For generator set enclosures that fall under the Modular Building Inspection and Insignia requirements of FS 553.37, does FS 553.844 (4) supersede the requirements of FS 553.37 (3)?

Sincerely,



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