

**INTERPRETATION IC 90.1-2022-1 OF
ANSI/ASHRAE/IES STANDARD 90.1-2022
Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings**

Date Approved: January 30, 2024

Request from: Clark Denson, Smith Seckman Reid, Inc., 2995 Sidco Drive, Nashville, TN 37204.

Reference: This request for interpretation refers to ANSI/ASHRAE/IES Standard 90.1-2022, Section 8.4.3, regarding exceptions for Electrical Energy Monitoring in health care facilities.

Background: ASHRAE/IES Standard 90.1-2022, Section 8.4.3 requires electrical energy monitoring, recording, and reporting for total electrical energy, HVAC systems, interior lighting, exterior lighting, receptacle circuits, and refrigeration systems. Exception 5 to Sections 8.4.3.1 and 8.4.3.2 applies to “Critical equipment and life-safety branches of NFPA 70, Article 517.”

NFPA 70, Article 517 “Health Care Facilities” says that Essential Electrical Systems shall have three separate branches: life safety, critical, and equipment. These are each defined as a system of feeders and branch circuits supplying power for the following loads that automatically connect to alternate power sources by one or more transfer switches during interruption of normal power source:

Life Safety Branch – lighting, receptacles, and equipment essential for the life safety

Critical Branch – task illumination, fixed equipment, select receptacles, and select power circuits serving areas and functions related to patient care

Equipment Branch – primarily 3-phase power equipment arranged for delayed, automatic, or manual connection to the alternate power source

Non-essential loads are those that are fed from a normal power source and which are not supplied by an alternate power source.

While NFPA 70 Article 517 doesn’t define “critical equipment,” ASHRAE/IES 90.1’s definition of “equipment” is “devices for space heating, space cooling, ventilation, humidification, dehumidification, electric power, lighting, transportation, refrigeration, cooking or service water heating, including (but not limited to) furnaces, boilers, air conditioners, heat pumps, chiller, water heaters, lamps, luminaires, ballasts, elevators, escalators, or other devices or installation.”

Most owners of health care facilities would agree that both the critical and equipment branches have “critical equipment” that would fall under this exception. Alternately, it may be possible that there is a typographical error in ASHRAE 90.1, where commas should have been placed after the words “Critical” and “equipment.”

Given the scope of Essential Electrical Systems in NFPA 70 Article 517 and the ambiguity of the Exception language in ASHRAE/IES 90.1-2022, I have the following Interpretation Requests.

Interpretation No.1: All three branches of the essential electrical system as defined by NFPA 70, Article 517 (life safety, critical, and equipment branches) fall under Exception 5.

Question No.1: Is this interpretation correct?

Answer No.1: Yes

Comments No.1: The Committee acknowledges that a comma was inadvertently omitted between “critical” and “equipment”.

Interpretation No.2: The life-safety branch defined by NFPA 70, Article 517 as well as any equipment (following the ASHRAE/IES 90.1 definition) deemed “critical” by the Health Care Facility Owner falls under Exception 5.

Question No.2: Is this interpretation correct?

Answer No.2: No

Comments No. 2: The term “equipment” as described above should not have been italicized; the intention is to refer to the NFPA 70, Article 517 definition of equipment branch.

Interpretation No.3: Only the critical branch and life-safety branch of NFPA, Article 517, fall under Exception 5. The word “equipment” is unnecessary to the scope of the exception.

Question No.3: Is this interpretation correct?

Answer No.3: No

Comments No.3: The intent of this exception is to include the critical branch, the equipment branch, and the life safety branch. A comma was inadvertently omitted.