## INTERPRETATION IC 62.1-2022-3 OF ANSI/ASHRAE STANDARD 62.1-2022 VENTILATION AND ACCEPTABLE INDOOR AIR QUALITY

Approved: June 25, 2023

Request from: Stan Harbuck, P.O. Box 1643, Salt Lake City, UT 84110.

**<u>Reference:</u>** This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.1-2022, regarding ventilation requirements for sleeping pods.

**Background:** Sleep pods are starting to become more common. Some are not very enclosed and easily open to exchanging the air in the pod with air in the room. Others are more enclosed without any apparent opportunity for exchanging the air in the pod with the air around them. Some have no obvious method of ventilation and could be considered relatively enclosed and unventilated. Some are relatively enclosed but have a fan to bring in air from the room around them. However, different pods with fans may have different ventilation rates at which they ventilate each pod. Every building, area, or zone has a determined square footage and has a maximum occupancy capacity which could be used to determine the maximum need for outside air. Given these parameters, it should be possible to calculate the maximum cubic feet per minute fan that would be necessary to provide the worse case fan flow required in a sleeping pod.

One study of a compartment similar to some of the smaller sleeping pods in volume showed that, within 20 mintues of an occupant entering the compartment, the CO2 level in the compartment reached over 5,000 ppm. At that rate of increasing concentration, within 3 to 4 hours the IDLH (Immediately Dangerous to Life or Health) level of 40,000 ppm CO2 would have been reached.

**Interpretation No.1:** Ventilation air shall be provided to a sleeping pod.

**Question No.1:** Is this interpretation correct?

## Answer No.1: Yes

<u>Comments No.1:</u> An enclosed sleeping pod should be considered an occupiable space and therefore should be ventilated.

**Interpretation No.2:** Ventilation air to a sleeping pod may be provided by transfer air from the room in which the pod is installed.

Question No.2: Is this interpretation correct?

## Answer No.2: Yes

<u>Comments No.2</u>: Ventilation may be provided by transfer air, provided the room itself is ventilated and is classified as Class 1.

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**Interpretation No.3:** The per person ventilation rate required in a pod should default to the value used for the room in which it is placed.

Question No.3: Is this interpretation correct?

Answer No.3: No

<u>**Comments No.3:</u>** The designer shall determine the Table 6-1 Occupancy Category for enclosed sleeping pods. Where the occupancy category for a proposed space or zone is not listed, the requirements for the listed occupancy category that is most similar in terms of occupant density, activities, and building construction shall be used.</u>