INTERPRETATION IC 62-1999-37 OF ANSI/ASHRAE STANDARD 62-1999 VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY

REVISION TO 62-1999 APPROVED: August 14, 2000

Originally issued as interpretation of Standard 62-1989 (IC 62-1989-32) on June 19, 1999, but revised based on the publication of Standard 62-1999. Revisions made to all Background, Question and Answer statements to reflect Standard 62-1999 language.

Request from: Brian Hall, Naval Facilities Engineering

<u>Reference:</u> This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62-1989, Tables 2.

Background: Tables 2 specifies minimum ventilation rates for a variety of occupancy types. With respect to residential-type sleeping spaces, there are three entries: In Table 2.1 under "Hotels, Motels, Resorts, Dormitories" there is an entry for "Bedrooms" (30 cfm/room) and another for "Dormitory sleeping areas" (15 cfm/person). In Table 2.3 under "Ventilation of Residential Facilities (Private Dwellings, Single, Multiple)," there is an entry for "living areas" which includes bedrooms. This interpretation relates to a Bachelors Enlisted Quarters, a three-story building consisting of several private bedrooms, every two of which share a bathroom and a "service area," which is essentially a small kitchenette and storage area.

Interpretation No. 1: The Bachelors Enlisted Quarters (BEQ) is considered an apartment building and thus ventilation rates for the building must be determined from Table 2.3 "Ventilation of Residential Facilities (Private Dwellings, Single, Multiple)."

Question No. 1: Is Interpretation No. 1 correct?

Answer: No.

<u>Comment</u>: Depending on the circumstances, either Table 2.1 or Table 2.3 may be appropriate. One of the primary distinctions between the residential buildings covered by Table 2.3 and the commercial occupancies covered by Table 2.1 is the amount of individual control occupants have in residential buildings over furnishings, decorations, and operation of ventilation systems. If the BEQ is characterized by these limitations in occupant control, it and similar spaces would not be covered by Table 2.3. Under circumstances where the occupants have control over sources, systems and indeed their occupancy, then the use of Table 2.3 may be more appropriate.

Interpretation No. 2: Assuming Table 2.1 rates apply, the correct ventilation rate for the BEQ bedrooms is that listed for "dormitory sleeping area" (15 cfm per person), as opposed to that listed for "bedrooms" (30 cfm per room).

Question No. 2: Is Interpretation No. 2 correct?

Answer: No.

<u>Comment:</u> "Dormitory sleeping areas" in this context refer to large open areas of beds, like those found in barracks. This can be seen by the estimated occupancy density for this space type in Table 2.1 which is 20 people per 1000 ft², two or three times more dense than would be expected in a BEQ room. "Bedrooms" in Table 2.1 refer to single or double occupancy rooms such as hotel rooms or school dormitory rooms. The BEQ rooms fall into this category. Hence, the proper ventilation rate for these rooms is 30 cfm per room.