## INTERPRETATION IC 62-1999-06 OF ASHRAE STANDARD 62-1999 VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY

## April 5, 2000

<u>Request from:</u> Francis J. Offermann PE CIH, Indoor Environmental Engineering, 1448 Pine Street, Suite 103, San Francisco, CA 94109

<u>Reference</u>: This request refers to ASHRAE Standard 62-1999, Table 2, Outdoor Air Requirements for Ventilation.

<u>Background to Questions</u>: Addendum 62e removed from the footnote to Table 2 that a moderate amount of smoking was covered by the rates in the table. It is now not clear whether the table covers any amount of smoking or assumes no smoking. If it assumes no smoking, it is not clear what can be done to satisfy the standard in the presence of ETS on the basis of health and/or perceived air quality.

Indoor Environmental Engineering's Interpretation #1: The rates in Table 2 assume no smoking for all spaces listed except smoking lounges, bars and cocktail lounges, and casinos.

Question No. 1: Is Interpretation # 1 correct?

Answer: Yes.

<u>Comment</u>: The approval of addendum 62e removed the statement that these rates account for "a moderate amount of smoking" based on the statements of numerous cognizant health authorities regarding increased mortality and other adverse health effects associated with environmental tobacco smoke. While the rates themselves were not adjusted downward as part of addendum 62e, the intention of this addendum was that the Ventilation Rate Procedure applies to only spaces with no smoking. The intent of the committee in making this change was to be consistent with section 6.1.3.1 of the standard. If these rates are revisited in future addenda, their revision will be based on an assumption of no smoking.

Indoor Environmental Engineering's Interpretation #2: The rates in Table 2 assume no smoking for smoking lounges, bars, cocktail lounges and casinos.

<u>Question No. 2</u>: Is Interpretation #2 correct?

Answer: No.

<u>Comment</u>: Despite the answer given above on Interpretation #1, these spaces remain in the table. Future addenda will eliminate this "inconsistency" by providing separate guidance on determining ventilation rates for these spaces (and other spaces) when smoking is permitted in them.

<u>Indoor Environmental Engineering's Interpretation #3</u>: The IAQ procedure may be used to design spaces in which smoking takes place.

Question No. 3: Is Interpretation #3 correct?

Answer: Yes.

<u>Comment</u>: If smoking is expected to occur in a space, then the statement in section 6.1.3.1 of the standard would disallow the use of the Ventilation Rate Procedure since "human carcinogens or other harmful contaminants are suspected to be present." As noted above, ETS falls into this category based on the findings of numerous cognizant health authorities based on its association with lung cancer and other adverse health effects such as heart disease. Under these circumstances, this section requires that "other relevant standards or guidelines (e.g., OSHA, EPA) must supersede the ventilation rate procedure." The Indoor Air Quality Procedure is one of the others standards or guidelines that may be applied as an alternative procedure. The Indoor Air Quality Procedure requires the control of "the concentration of all known contaminants of concern to some specified acceptable levels", but it does not establish these levels.