

1.0 **Executive Summary:**

The purpose of this report is to determine whether or not the Montgomery County Conference Center and Hotel in Rockville, MD, meets the minimum outdoor air (OA) requirements set forth by the first draft of ASHRAE Standard 62-2001, Addendum 62n. The overall size of the Montgomery County Conference Center and Hotel is approximately 240,000 square feet. The conference center portion, with its two stories extending into the hotel main and lower level, comprises about 100,000 square feet of this total. The hotel makes up the remaining square footage with its nine stories of guestrooms. For this report, only the ventilation requirements of the conference center and hotel's main and lower levels will be analyzed and compared.

Nine of eleven air handling units serve this area of the building with design supply airflow rates ranging from 1,400 to 50,000 cfm, for a total supply cfm of 146,725. The draft addendum ventilation specification consists of both a floor area component and an occupant component, unlike the 1989 version, which had an occupant component only. The cfm per person for the addendum is around 5-7 cfm/person compared to the 15-20 cfm per person for the 1989 version. As a result, previously critical small spaces like conference rooms are no longer critical since the floor component is almost insignificant.

Overall, it was found that the use of Addendum 62n resulted in a minimum building OA requirement of 68,729 cfm or, approximately 3% less OA than required with the original design based upon the '89 standard. Ventilation effectiveness values, E_v , ranged from 0.31 to 1.0. This large span is due to MCCCH having very large, high occupancy spaces served by variable air volume as well as smaller, lower occupancy areas served by constant volume systems.



Architectural renderings compliments of RTKL Associates