## 1.0 Executive Summary:

In the report, the Ventilation Rate Procedure from ASHRAE Standard 62.1-2004 is used to determine whether The Hilton Baltimore Convention Center Hotel (HBCCH) in downtown Baltimore, MD complies with the prescribed ventilation requirements. The HBCCH is comprised of two separate buildings, East and West, connected by a walking bridge which spans Eutaw Street. The lower three levels of the East Building and lower four levels of the West Building make up the East Podium and West Podium. The podiums are the public spaces of the HBCCH, housing ballrooms, meeting rooms, a restaurant, a pool, prefunction spaces, and offices. Two guest room towers, one 19 stories tall and one 21 stories tall, sit atop the West Podium.

Eight air handling units and one pool air conditioning unit, ranging in size from 4,000 to 48,500 cfm, deliver the supply air to 203,700 sq. ft. of space in the East Podium and West Podium. The minimum amount of outdoor air to these nine systems varies from 3,000 to 28,000 cfm. A more comprehensive summary of the building mechanical systems can be found in Section 2.0 of this report.

As found in Section 5.0 of this report, eight of the nine systems analyzed meet ASHRAE Standard 62.1-2004. The only system that does not meet the standard is AHU 8. All other systems supply more than the minimum required amount of outdoor air. Ventilation effectiveness values, $E_v$, ranged from 0.41 to 0.70. This span of values is most likely due to the HBCCH having large, high occupancy spaces supplied by variable air volume systems. Due to the rather low range of $E_v$ values, $V_{ot}$ was significantly greater than $\sum V_{oz}$ in all nine cases.