

Executive Summary

This report is an analysis of the ventilation systems used for Terminal 3 at McCarran International Airport in Las Vegas, NV. This analysis is performed for all (88) air handling units located in Terminal 3 as well as for the (3) air handling units at the new central plant serving the terminal. Since Terminal 3 includes Variable Air Volume (VAV), Single Zone VAV, and Constant Volume systems; the calculations for some spaces vary slightly from those done for other spaces. The calculation procedure for each of these types of systems is explained in this report

The minimum requirements for the ventilation systems have been outlined in ASHRAE Standard 62.1-2007 which will serve as the base guidelines for system compliance. Ventilation compliance is only evaluated on the basis of sections 5 and 6 of the standard. Sections discussing items such as outdoor air quality are not being discussed in this particular report.

The results of this analysis indicate that the overall building complies with ASHRAE Standard 62.1-2007 Section 5, and that most of the air handling units comply with the ventilation requirements outlined in ASHRAE Standard 62.1-2007 Section 6. The only air handling units that do not meet the requirements outlined in Section 6 are those units serving the electrical substations. These units were designed to allow only for thermal conditioning of the space and therefore do not include any direct means of ventilation. Possible reasons for this design choice are discussed within this report.