

TECHNICAL REPORT ONE
ASHRAE STANDARD 62.1 AND 90.1 ANALYSIS



DEFENSE INFORMATION SYSTEMS AGENCY
HEADQUARTERS FACILITY
FT. GEORGE G. MEADE, MD.

GEORGE SLAVIK III

MECHANICAL OPTION

ADVISOR: DR. TREADO

EXECUTIVE SUMMARY

This report focuses on the Defense Information Systems Agency (DISA) Headquarters Facility's compliance with ASHRAE Standards 62.1.2007 & 90.1.2007.

The DISA HQ includes six integrated buildings organized in a campus layout. The facility is comprised of six connected buildings: Command, Operations, Acquisitions, Lab, Warehouse and Central Plant. The program contains about 70% office spaces, 7% lab spaces, and 10% common spaces.

The ASHRAE Standard 62.1 Analysis showed that the buildings are largely compliant with the requirements of Section 5, indoor air quality. Close detail has been given to the design to ensure the occupants are receiving the best air quality as possible. The buildings are largely compliant also with Section 6, Minimum Outdoor Air & Ventilation rates. All spaces analyzed complied with ASHRAE minimum ventilation requirements; some spaces greatly exceeded the required rate.

The ASHRAE Standard 90.1 Analysis showed that these buildings designers have gone above and beyond the Standard's required guidelines. The building envelope as designed is largely compliant as well as the boilers, chillers, and lighting. The Fan Power Limitation calculations were the only category in which the DISA HQ did not meet compliance. About 38% of the AHU Fans did not comply with this standard.

Overall, the DISA HQ was largely compliant with ASHRAE Standards 62.1.2007 & 90.1.2007. Supporting tables and further explanations explain the analysis.