CENTRE OF STUDIES FOR BUILDING SURVEYING FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING UNIVERSITI TEKNOLOGI MARA

A STUDY ON INDOOR AIR QUALITY AT THE STADIUMS

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"I hereby declare that this academic project is the result of my own research except for the quotation and summary which have been acknowledged"

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Abstract

In modern day, people mostly adult living in indoor compare to outdoor due to working purposed. A result of a research from cdc.gov, 2014 indicate that people spent about 90% of their time indoor. The research also indicate that the air inside a building is more polluted compare to outdoor air. The problems arise when these indoor air quality affect the health of the occupants health. Therefore, three indoor stadiums building was studied in this research. In this studies, three factor of indoor air quality is being focused which are humidity, temperature and air velocity. By using appropriate equipment which is velocicalc meter, the air indoor in the selected indoor stadiums of case study building will be tested. Other than that, an interview to the maintenance of the stadiums will be conducted to get more information about the IAQ in the selected indoor stadiums. Finally, the data collected will be analyzed. The finding from the study shows value of humidity, temperature and air velocity in each case study indoor stadiums are in satisfaction condition whereby each indoor stadiums show value of air velocity does not reach the standards set, while the humidity is slightly highest compare the permissible value from DOSH. Thus, proper conclusion and recommendation will be provided to overcome the indoor air quality problems in the future.

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CHAPTER 1

Introduction to Indoor Air Quality

1.1 Introduction

Indoor air quality (IAQ) is a term which refers to the air quality within and around buildings and structures, especially as it relates to the health and comfort of building occupants. Poor indoor air quality can cause a variety of health problems either temporary an until the long term. Health problems often associated with poor IAQ include allergic reactions, respiratory problems, eye irritation, sinusitis, bronchitis and pneumonia.

IAQ problems arising in non-industrial buildings (indoor or enclosed work space equipped ventilation and air conditioning system that there are people working, but does not include premises used primarily as a facility for the manufacture and production, and vehicles) when the air quantity of ventilation is inadequate supplied for the amount of air pollutants that are present in the room. Thus, IAQ and, mechanical ventilation systems and air conditioning (MVAC) are very closely related.

Agent derived from living organisms or living organisms (e.g., Viruses, bacteria, fungi, and antigen mammals and birds) can be inhaled and can cause many types of health effects, including allergic reactions, respiratory disorders, hypersensitivity diseases, and infectious diseases.

Compounds that evaporate from most products, housekeeping, maintenance and construction made from organic chemicals. These compounds are released from the products used and stored. In sufficient quantities, VOCs can cause eye, nose and throat,