

## Pengaruh active fire protection systems terhadap kehandalan bangunan dalam mencegah terjadinya bahaya kebakaran pada bangunan perhotelan di DKI Jakarta

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### Abstrak

The paper reviews the standard of design and installation of the Active Fire Protection Systems for hotel buildings to minimize fire risk. When a fire occurs, active protection system is necessary that pinpoints its location. Once detected, the first line of defense against fire is a sprinkler system or other active fire protection systems. Active Fire Protection Systems are detectors & alarm systems, automatic sprinkler systems, risers, extinguishing systems, and smoke control, all of which is aimed to solve the problem of fire damage.

In major cities around the world especially in Jakarta, hotel buildings have been, are and will be designed and built to provide safe and comfortable space for human life and various activities. The fire risk is inherent in the building itself and it is of utmost importance to eliminate or keep this risk and its consequences as small as possible.

On December 3<sup>rd</sup>, 1986 a fire occurred in the Dupont Plaza Hotel and Casino, San Juan, Puerto Rico, it happened because the hotel did not have a fire protection system in each floor. When the fire came and burned, the building could not extinguish the fire because it did not have the needed fire detector and sprinklers in place.

From 50 questionnaires sent to various hotel buildings in Jakarta, 30 responses were received to be viable for in-depth analysis. The result of analysis shows clearly that the active fire protection systems are positively correlated in a linear manner to three of the key active fire protection variables. The key variables influencing building reliability in good design and installation standard. The three variables are heat detector, portable extinguisher, and automatic sprinkler. This research can be used to control and measure the standard design and installation of the hotel buildings.