

31 January 2018

IGnesis Consultants Pte Ltd
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#07-01 Vertex Tower B
Singapore 408868

To Whom It May Concern,

PROVISION OF CONSULTANCY SERVICES FOR TERMINAL 4, SINGAPORE CHANGI AIRPORT.

As part of the Terminal 4 development, IGnesis Consultants Pte Ltd was the Fire Safety Engineer (FSE) and the Professional Engineer for the Engineered Smoke Control (ESC) System for the passenger terminal building.


2. In their capacity as the FSE, Er Henry Ho Keen Peng and his team provided a Performance-Based Fire Safety Design (PB FSE) in compliance to the 'Code of Practice of Fire Precautions in Buildings 2013' and Singapore Fire Safety Engineering Guidelines. IGnesis was able to provide fire safety solutions which met the unique architectural and design challenges of an airport passenger terminal building. The solutions they provided were able to overcome challenges such as:

- a) Nature of the development which needs to be operational around the clock.
- b) Large fire compartmentation capacity.
- c) Engineered smoke control system – extended smoke reservoir size and length.
- d) Effectiveness of fire suppression system in high ceilings.
- e) Means of escape considerations taking into consideration the airport capacity.
- f) Consideration of airport security requirements versus escape requirements.
- g) Consideration of Phased Evacuation Strategy in view of the nature of the airport operations and high security concerns.

3. In their capacity as the Professional Engineer and Consultant for the Engineered Smoke Control (ESC) System, IGnesis was involved in the project for its entire four year duration from Concept Design, Detail Design, Professional Supervision of Works during installation, Testing & Commissioning, Support during Hot Smoke Test & inspection by Registered Inspector and issuance of Certificate of Supervision.

4. IGnesis has displayed high level of competence, technical capability and ability to be a team player which helped in making the project a success.

Your sincerely,



Stuart Ralls
Associate General Manager
ENGINEERING & DEVELOPMENT GROUP