

1. Title	Design non-conventional fire services
2. Code	EMFSDE602A
3. Range	Capable to apply highly specialized design techniques, in complicated situations, to perform *non-conventional fire services design work at locations of large premises where fire safety design is involved.
4. Level	6
5. Credit	12
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge of *non-conventional fire services design</p> <ul style="list-style-type: none"> ◆ Understand the uses of large buildings, special architectural design requirements, project schedules and the design criteria of *non-conventional fire systems ◆ Master the principles of fire dynamics ◆ Understand the performance-based fire services design methods and their major codes, including: <ul style="list-style-type: none"> • The Code of Practice for Fire Service Installations and Equipment and relevant legislations • Recognized international standards (BSEN, NFPA) <p>6.2 Perform tasks of *non-conventional fire services design</p> <ul style="list-style-type: none"> ◆ Apply the expertise, in cases with inadequate information, to undertake major tasks of designing performance-based fire services, including: <ul style="list-style-type: none"> • Determine performance-based design goals and acceptable criteria • Assess fire hazards • Analyze feasibility design packages ◆ Master the system configurations and equipment specifications of *non-conventional fire service design ◆ Apply CFD simulation software to perform complicated fire modelling computations and analyze the computed results
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency is:</p> <p>(i) Capable to apply highly specialized design techniques to perform tasks of non-conventional fire services design in complicated situations; and</p> <p>(ii) Capable to master the system configurations and equipment specifications of *non-conventional fire service design; apply CFD simulation software to handle complicated fire modelling computation and analysis.</p>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses knowledge of conventional fire system design.</p> <p>*Non-conventional fire service design replaces the prescriptive provisions of the Code of Practice for Fire Service Installations and Equipment with fire engineering design methods that require highly specialized techniques and a set of designs acceptable to the Fire Services Department.</p>