

General

Item	Comments	Recommendation
1	Noncompliance with the standards symbols	Refer to NFPA 170
2	Unnecessary or wrong information provided in the cover page	Make sure not to copy tables and other information from different project unrelated to the project submitted
3	leaving some rooms and spaces within the building without labeling	Make sure all spaces are correctly labeled in order to understand what the space is used for
4	Submitting a modification drawings without a list of modification or clear identification of the modified area	<ul style="list-style-type: none"> • Provide a detailed list of modification in the cover page and identify the area of each modification. • In all the drawings hatch the existing approved areas and only cloud the modified area, and provide a list of modification per drawing identify what changed in that drawing.

LIFE SAFETY PLANS

Item	Comments	Recommendation
1	Non complying of Fire rating separation/enclosure (Door and Wall Rating) <ul style="list-style-type: none"> • Exit stairs • Corridors • Smoke stop lobby • Firefighting lobby 	Refer to Table 8.3.3.12 of NFPA101
2	Exit is not directly discharging to the outside of the building (Into public ways)	If exit termination discharge through the interior of the building such as corridor/lobby, provide exit passage until it reaches outside of the building. The walls and doors along the exit passage shall be similar to the fire rating of the enclosed exit stair.
3	Exceeds the common path of travel required.	Provide secondary exit or adjust the location of the stair to comply with the common path limit.
4	Remoteness of means egress	<ul style="list-style-type: none"> • Non-sprinkler -1/2 of the total diagonal dimension of the building. • Sprinkler 1/3 of the total diagonal dimension of the building.
5	Dead end limit	Provide a door barrier (rating not required).
6	Indicate the Hazard Classification of the Workshop Building (Industrial Occupancy).	Refer to Sec. A.6.1.12.1 of NFPA 5000.
7	Indicate the Hazard Classification of the Warehouse Building (Storage Occupancy).	Refer to Sec. A.6.1.13.1 of NFPA 5000.
8	Window opening in common duct (vertical opening)	QCDD may allow any window openings within the shaft provided that such window openings between each unit are 3m away or the shaft opening is dedicated only to a single unit.
9	External Site Access requirements	Refer to proposed QCD general guidelines Annexed for the requirements
10	Fire Safety compliance for old buildings / constructed building / Existing building without previous approved plan	Compliance to proposed QCD Fire Safety Requirements Guidelines Annex for Existing building
11	QCD requires minimum 2 numbers of fire lift for High-rise building and Minimum dimension of Lift for Ambulance stretcher accommodation	Refer to proposed QCD general guidelines Annexed for the requirements

Drawing Presentations /Declaration and Fire Safety Provision		
12	<p>General Statements and Declaration</p> <ol style="list-style-type: none"> Please clarify submission (New, Modification or amendment, etc.) Further, submit complete sets of plans. Kindly specify to the project description in itemize narrative statement of amendments made per highlighted shown on the floor plan. Clarify & confirm applicability and relevance of declared Fire safety notes to mentioned amendments, Consultant to declare if the proposed building structures are fully equipped or not equipped with automatic fire suppression system or if any All symbols to be in accordance with NFPA 170 and correctly reflected in the legend. Only show the relevant symbols in the legend, which is to be reflected on every sheet of the drawing. 	<p>-Specific plan to be submitted, only related information must be provided. -if NOT applicable kindly remove declared statements. Declare only; If fire safety works on BP do NOT affects the FA, FP & ACMV plan, previous approved application of each plan to indicate and or / if amendments made on BP will be affected the FA, FF & ACMV system (Plans), it will be submitted together after BP approval</p> <p>-Please confirm to be clear what specific design code to be use.</p> <p>-Comply NFPA 170.</p>
13	<p>Site plan/Location plan:</p> <ol style="list-style-type: none"> Means of access of fire engine to the site shall be indicated Means of access to the site and to perimeters of the building for fire fighting vehicles and equipment shall be shown Breeching inlet shall be not more than 18m from fire engine hard standing. Identify clearly the proposed outside facilities & indicate which to be a fire hazard or similar to cause obstruction to fire operation. 	<p>-Indicate fire engine hard standing & fire engine access road.</p> <p>-Indicate provision on the plan</p> <p>-To be shown on the floor plan.</p>
14	<p>Floor plan:</p> <ol style="list-style-type: none"> The submission does not demonstrate full compliance with NFPA 101. Calculation for designed occupant load shall be shown to demonstrate adequate provision of egress means. Fire resistance rating of all elements of structures and fire doors, etc. shall be indicated. Details of all means of escape shall be shown with travel distance, exit sign, directional sign, and emergency light. Demonstrate that travel distances and common path of travel distances and common 	<p>-Must be provided and shown on the floor plan.</p>

	<p>path of travel comply with NFPA 101.</p> <ul style="list-style-type: none"> e. Location of proposed fire lifts, fire lobbies, fire command center, fire pump, fire water tanks room/ area, generator rooms and transformer rooms, any other area of special risk, etc. f. Consultant to review declaration & statement for hazard content such as light hazard under the provision of standard for sprinkler design of NFPA 13. g. Emergency exit door shall be provided to an area of storage/factory building with Horizontal sliding door and with an occupant load of more than >10 persons, to be indicated on the plan. h. Provision of mezzanine floor must be designed base on the aggregate area of a mezzanine not exceed one-third of the open area (the unenclosed space) of the room in which the mezzanine is located in compliance with the provision of NFPA 101. Please check and revise. i. Exit discharge to external shall be complied in accordance with NFPA 101. Please check and reconfigure. j. Exit separation measurement of area served shall comply with the provision of NFPA 101. Please revise k. Not more than fifty percent (50%) of the required exits and required egress capacities shall be physically separated at the main lobby. l. Parapet height provision shall be shown on the plan (Floor plan, Elevation/Sectional view) serving partition wall (Example: accommodation adjacent to workshop, neighboring area) m. Type and extent of provision of fire detection and alarm system and voice communication shall be indicated 	
<p>15</p>	<p>Cross-sectional Drawings</p> <ul style="list-style-type: none"> a. Clear distance of the external wall from the fire fighting vehicles and equipment access, lot boundaries, adjacent building shall be shown b. Depth of ceiling space shall be shown c. Dimensions of treads and risers of staircase shall be included d. Clear height of all structures or projections directly above the fire engine access road shall be shown e. Opening in external wall shall be demonstrated with consideration of setback distance. f. Full height of each floor and depth of ceiling spaces; g. Details of all openings voids penetrating floors including their 	<p>-Must be provided and shown on the floor plan.</p>

	<p>dimensions, usage and height of enclosing walls and barricades;</p> <ul style="list-style-type: none"> h. Details of the junction between the roof and any compartment walls; the dimensions, usage and height of enclosing walls and barricades; i. Details of the junction between the roof and any compartment walls; j. HC fire wall shall be provided within the building property line adjacent to other neighboring lot with extends from the foundation to a point at least (760 mm) above the top surface of the roof being protected. This must be also reflected including the fire resistance rating on the sectional view. k. Please enlarge detail of the dimensions of treads & risers of stairs with handrail. Handrails shall be provided both sides. l. Intermediate railings (open guards) shall be spaced at 100mm (any horizontal/vertical or sphere design). See NFPA 101.7.2.2.4.5.3 	
<p>16</p>	<p>Elevation Drawings:</p> <ul style="list-style-type: none"> a. Provision for 20m – apart firemen access panel on the external walls and cladding shall be indicated. Access panel on the external walls and claddings of the storage building shall be located along the perimeter wall above the fire engine hard standing. (Front elevation) b. Clarify window type opening for Natural ventilation (NV) serving staircase access. It shall be provided smoke vent at the top of stairwell shaft with minimum area of 1.5m², this must be reflected on elevation & sectional view with appropriate identification, kindly rectify. Also, if window opening thru duct, it is not permitted, otherwise pressurized (MV) is required, confirm mode of ventilation to be reflected & fill-up box (other and indicate coverage). c. Fire Wall Termination. Fire walls shall extend from the foundation to a point at least 30 in. (760 mm) above the surface of the roof, except where installed in accordance with 8.3.3.7.1 through 8.3.3.7.4 	<p>-Must be provided and shown on the floor plan.</p>

Firefighting

Item	Comments	Recommendation
1	Not listing all design criteria in sprinkler design	<p>The following must be added</p> <ul style="list-style-type: none"> - Design density and design area - Maximum and Minimum distance between sprinklers, sprinkler to the wall and to the ceiling - Minimum design pressure - inside and outside hose allowance - sprinkler area of operation - temperature rating - type of sprinklers used (pendent, upright, or sidewall) - type of sprinkler response (standard, Extended coverage, quick response, ESFR, CMSA) <p>Addition criteria for storage applications</p> <ul style="list-style-type: none"> - Storage Height - Ceiling Height - Commodity Classification - type of Storage - Mention the NFPA 13 chapter or table used in designing the sprinkler system
2	Not providing isolation Valve from the suction side of the fire water tank	An isolation valve should be added on the suction pipe coming out of the fire water tank to ensure easier maintenance
3	Providing different sheets for fire pump details and fire water tank details	Both the fire pump and the fire water tank details shall be in the same sheet and connected together in order to understand the relation between the two
4	Inconsistency of the riser diagram and the floor plan	Insure that the riser diagram details match the design on the floor plans
5	Not providing section layout	Section layout shall be provided when sprinkler system is present including sprinkler layout, ceiling/ slab soffit and the ceiling void depth dimension indicated if any.
6	Some firefighting drawings are submitted with Fire and Life Safety features	<ul style="list-style-type: none"> - Only ratings relating to a certain firefighting features shall be shown on the plan, do not shall every wall, door, and window rating. - Remove all occupant load calculations - Remove all handrail details
7	Provide only one fire pump and fire water tank schedule	Only show it once on the cover page to avoid inconsistency
8	Show location of fire pump room, hard standing and breeching inlet on the site plan, if any.	

Fire alarm

Item	Comments	Recommendation
1	Incorrect placement of the FACP	The FACP must be located in a continually monitored location within the building, preferably a guard room or a command center.
2	No coordination between the Fire Alarm Drawings and the Mechanical Ventilation Drawings	The Fire Alarm Designer in the consultant office shall ALWAYS coordinate with the mechanical engineer designing the Mechanical Ventilation Drawings to match the I/O Matrix and provide a correct sequence of operation in both drawings
3	Inconsistency and mistakes in the I/O Matrix	<ul style="list-style-type: none"> - Only sprinkler water flow switch shall automatically operate the basement smoke control system when sprinklers are available in order to have a full functional sprinkler system - A fault or trouble signal shall not actuate the general alarm signal
4	Not extending the public address system or the evacuation system inside large fit-outs in malls	A large fit-out within a mall area shall have an address system or an evacuation system to notify the occupant in the fit-out (Example: Large supermarkets in malls)
5	Incorrect alarm system type declaration	Always make sure to indicate which system is used in the building (conventional or addressable)
6	Not providing section layout	Section layout shall be provided when Alarm system is present to verify the ceiling void (show dimension of depth) requirements.
7	Some fire alarm, drawings are submitted with Fire and Life Safety features	remove all unnecessary fire and life safety feature in the fire alarm drawings <ul style="list-style-type: none"> - Door and window ratings - handrail details

Mechanical ventilation

Item	Comments	Recommendation
1	Inconsistency of the design brief and what is shown on the floor plans	Always make sure to review your design brief in regards to the floor plans and make sense out of them before submitting
2	Details and layout on the plans are incomplete	
3	Logic behind the system and the event matrix in the fire alarm drawings are not coordinated	Always make sure to coordinate with the fire alarm designing engineer.
4	Not showing compartmentation or fire/ smoke dampers	Clearly show location of the fire/ Smoke dampers and the compartmentation in which they serve and the compartmentation shall be coordinated with the smoke control zones
5	Forgetting to pressurize the smoke stop lobby	When having a smoke stop lobby, it shall be pressurized along with the staircases which they serve, make sure to show that clearly on the plans
6	Submitting incorrect CFD analysis	The CFD analysis shall reflect the acceptance criteria of having visibility for the first 20 min of a fire and shall reflect compliance to prescribed acceptance criteria set by QCD
7	Incorrect location for the AC and ventilation ducts causing them to penetrate enclosed spaces such as smoke stop/fire lift lobby or stair cases	Always maintain the integrity of an enclosure within the building. Do not violate that integrity with ducts penetrations
8	choosing the wrong initiation device in triggering the smoke control system	Insure that sprinkler operation will not be hampered by the smoke exhaust system.
9	calculation of pressurization fans capacities mistakes	Always provide an allowance for opened doors in the calculation of pressurization fan capacities
10	No design concept provided when submitting natural ventilation	Make sure to provide a concept design brief of the natural ventilation. (Design objectives, Criteria and analysis)
11	No continuity of the ventilation ducts shown on the plans	make sure all ventilation ducting within a building provide continuity and are clearly shown on the drawings. They shall be easy to track from the starting to the ending point of the duct.