

## 幼兒中心內空氣調節裝置及照明標準

### 1. 幼兒活動範圍內的空氣調節系統

#### 設計標準

- |            |    |                     |
|------------|----|---------------------|
| (i) 戶外環境：  | 夏天 | 33°C db<br>66% RH   |
|            | 冬天 | 10°C db<br>40% RH   |
| (ii) 室內環境： | 夏天 | 25.5°C db<br>54% RH |
|            | 冬天 | 20°C db             |
- (iii) 鮮風量： 每人每秒 10 公升  
如用窗口機或分體式空調機，必須另置獨立的鮮風提供系統，以符合上述的規定

### 2. 幼兒活動範圍內的噪音水平

幼兒活動範圍內的噪音水平不可超過其原來背景噪音 4dBA

### 3. 機械抽風裝置的換氣率

- |         |                               |
|---------|-------------------------------|
| 盥洗室/廁所： | 每小時 15 次換氣                    |
| 廚房：     | 每小時 15 次換氣(一般性抽風，不包括廚房抽煙機(罩)) |
| 洗衣房：    | 每小時 15 次換氣                    |

### 4. 照明

在離地 0.5 米處量度，幼兒活動範圍內的平均照明度須有 300 lux.

## Standards for HVAC and Lighting for Child Care Centre

### A. Air-conditioning System for Activity Areas

#### Design Criteria

- |                          |  |                     |
|--------------------------|--|---------------------|
| (1) External conditions: | Summer   | 33°C db<br>66% RH   |
|                          | Winter   | 10°C db<br>40% RH   |
| (2) Internal conditions: | Summer   | 25.5°C db<br>54% RH |
|                          | Winter   | 20°C db             |
| (3) Fresh air quantity:  | 10 litre/s/person.<br>If room coolers or split type air conditioners are used, separate system of fresh air supply shall be provided to meet the said requirement. |                     |

### B. Noise level in Activity Areas

Noise level shall not exceed more than 4 dbA compared to the background noise.

### C. Air-change rate for mechanical ventilation

- |          |  |
|----------|--|
| Toilets: | 15 air-change/hour   |
| Kitchen: | 15 air-change/hour<br>(general extraction, not for kitchen exhaust hood) |
| Laundry: | 15 air-change/hour   |

### D. Lighting

Average illuminance of 300 lux at children's working level, i.e. 0.5m above ground level to be maintained in the activity rooms.

## 幼兒中心內空氣調節裝置的技術性資料一覽表

### 甲. 設計階段

- (1) 必須提交空氣調節及機械通風裝置的詳細設計圖則。
- (2) 必須列明每個房間的名稱及用途。
- (3) 必須列明在指定的房間及與其相連而沒有牆壁分隔的地方的總使用人數(包括職員、家長與幼兒)。
- (4) 必須標示冷氣機的位置及制冷量。
- (5) 必須標示每台通風扇的位置及運作模式 (抽入或排出)。
- (6) 必須詳列每台通風扇的大小及送風量 (公升/秒)。
- (7) 必須提供每處幼兒通常使用的地方 (例如課室、活動室、幼兒廁所等)的鮮風供應量及換氣率的計算記錄, 以表明該裝置符合幼兒中心的有關標準和規定。
- (8) 必須標示風槽/百葉孔/格柵的鮮風供應/排氣量。
- (9) 鮮風/排氣風槽應預留裝置以便日後測試風量。

### 乙. 申請實地檢查階段

在提出派員作實地檢查之前, 必須完成整個空氣調節及機械通風裝置的安裝及測試, 而且需提交裝置的測試報告, 計算記錄及標示有甲(1)至(9) (如適用) 之資料的竣工圖則。

**Technical Information Checklist for**  
**Air-conditioning Installation in Child Care Centre**

**A. Design Stage**

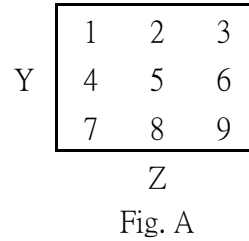
- (1) Design drawing for air-conditioning and ventilation installations shall be submitted.
- (2) Room name indicating the purpose of use shall be shown.
- (3) Total number of occupants (including staff & children) in designated area and any other connected area not separated by solid wall shall be shown.
- (4) Location and cooling capacity of each air-conditioning unit shall be indicated.
- (5) Location mode of operation (intake or exhaust) of each ventilation fan shall be indicated.
- (6) Fan size and air handling capacity (l/s) of each ventilation fan shall be shown.
- (7) Fresh air supply quantity and air exchange rate calculations for each area normally occupied by children (e.g. classroom, activity room, children toilet, etc.) shall be provided to demonstrate compliance with the standards and requirements for child care centres.
- (8) The fresh/exhaust air quantity at each air duct/louver/grille shall be shown.
- (9) Provision shall be allowed in the fresh/exhaust air duct for measurement of air flow rate.

**B. On Request for Inspection**

Upon completion and testing of the whole installation, test report, calculation and as-fitted drawing with items A(1) to A(9) (where applicable) incorporated shall be submitted prior to the request for site inspection.

## Ventilation Air Measurement Report for CCC/Nursery

Agency: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Elevation of assessment item:  
 A. Inlet Air/Exhaust Air louvre or C. Exhaust Air Fan Inlet  
 B. Supply Fan outlet or

Ventilation Air Measurement Table

Location	Type of assessment item	Y (m)	Z (m)	Volume of Room (m <sup>3</sup> )	Measure Air Velocity at Check Point (see Fig.A)									+ Minimum Vent. Air Required at 15 air-change/hour (litre/s)	# Measured Vent. Air Quantity (litre/s)
					(m/s)										
					1	2	3	4	5	6	7	8	9		

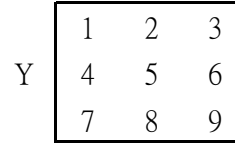
\* = Sum of measured value (m/s) + No. of check Point.  
 + = Volume of room (m<sup>3</sup>) x 15 + 3600 x 1000  
 # = Mean velocity (m/s) x Y(m) x Z(m) x 1000 x Utilization Factor of the Louvre

Signature: \_\_\_\_\_  
 Name of Applicant: \_\_\_\_\_  
 Date: \_\_\_\_\_

Name of Contractor  
 & Company Stamp: \_\_\_\_\_  
 Tested by (Name): \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_

## Fresh Air Measurement Report for CCC/Nursery

Agency: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Z  
Fig. A

Elevation of assessment item:  
 A. Fresh Exhaust Air louvre or C. Exhaust Air Fan Inlet or  
 B. Supply Fan outlet or D. Fresh Air Duct

### Fresh Air Measurement Table

Location	Type of assessment item	Y (m)	Z (m)	No. of Person of room	Measure Air Velocity at Check Point (see Fig.A)										+ Minimum F.A. Required at 10 l/s/p (litre/s)	# Measured F.A. Quantity (litre/s)
					(m/s)									*Mean Velocity		
					1	2	3	4	5	6	7	8	9			

\* = Sum of measured value (m/s) + No. of check Point.  
 + = No. of person x 10 (l/s)  
 # = Mean velocity (m/s) x Y(m) x Z(m) x 1000 x Utilization Factor of the Louvre

Signature: \_\_\_\_\_  
 Name of Applicant: \_\_\_\_\_  
 Date: \_\_\_\_\_

Name of Contractor  
 & Company Stamp: \_\_\_\_\_  
 Tested by (Name): \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_