



**Remark:**

**Item 5.1 Indoor Air quality Monitoring**

1. Air Quality monitoring will be conducted according to Client's recommended location. The Institute will communicate with the Client and propose the testing schedule.
2. Regarding Item 5.1.1、5.1.2、5.1.4、5.1.8、5.1.9、5.1.10 and 5.1.12, the measurement will be monitored reference to "HK Guidance Notes for the Management of IAQ in Offices and Public Places" for continuous eight(8) hours measurement. The measurement result will be compared with the "Good Class" of the indoor air quality index for Office and Public Place as mentioned in the "HK Guidance Notes for the Management of IAQ in Offices and Public Places".
3. Regarding Item 5.1.3、5.1.5 and 5.1.11, the measurement will be monitored reference to "Macau IAQ guidelines for public places". Among them, the measurement of Ozone (O<sub>3</sub>), Nitrogen Dioxide (NO<sub>2</sub>), Formaldehyde (HCHO), Airborne Bacteria、Fungi will be monitored in four (4) time slot evenly distributed over the office hours and the rest of the parameters will be monitored for eight (8) hours. The measurement result will be compared with the recommended value as mentioned in the "Macau IAQ guidelines for public places".
4. Regarding Item 5.1.6:
  - (a) The measurement will be monitoring reference to GB 50325-2010"Code for indoor environmental pollution control of civil building engineering", the measurement parameters and analysis method will be as follow:

Parameters	Analytical method
1). Radon (Bq/m <sup>3</sup> )	HJ/T 167 Radon Monitor
2). Formaldehyde (mg/m <sup>3</sup> )	GB/T 18204.2-7.2 Spectrophotometry
3). Benzene (mg/m <sup>3</sup> )	GB 50325-2010 Appendix F
4). Ammonia (mg/m <sup>3</sup> )	GB/T 18204.2-8.1 Spectrophotometry
5). TVOC (mg/m <sup>3</sup> )	GB 50325-2010 Appendix G

- (b) The sampling interval of each parameter are as follow:

Parameters	Sampling Interval
1). Radon (Bq/m <sup>3</sup> )	1 Hour
2). Formaldehyde (mg/m <sup>3</sup> )	20 minutes
3). Benzene (mg/m <sup>3</sup> )	20 minutes
4). Ammonia (mg/m <sup>3</sup> )	10 minutes
5). TVOC (mg/m <sup>3</sup> )	20 minutes
Remarks: The total sampling time for each location will be around 1.5 hours.	



- (c) During the measurement, it is necessary to conduct the outdoor sampling in the upstream, and the result will be used as a reference for the calculation of indoor pollutants concentration. The number of outdoor sampling point will mainly depend on the number of indoor sampling points and the total number of sampling days. Please communicate with the institute to confirm the number of outdoor sampling points.
- (d) The measurement result will be compared with the limit as mentioned in Table 6.0.4 “Class I civil building engineering” and “Class II civil building engineering” of GB 50325-2010.
- (e) According to the requirement of GB 50325-2010 “Code for indoor environmental pollution control of civil building engineering”, for those building using natural ventilation, the measurement of Formaldehyde, Benzene, Ammonia and TVOC should be conducted 1 hour after closing all the windows of the building, and the measurement of Radon should be conducted after twenty-four (24) hours. For those buildings using HVAC system, the measurement should be conducted under normal HVAC operating conditions.

5. Regarding Item 5.1.7:

- (a) The measurement will be monitoring reference to GB 50325-2020 “Code for indoor environmental pollution control of civil building engineering”, the measurement parameters and analysis method will be as follow:

Parameters	Analytical method
1). Radon (Bq/m <sup>3</sup> )	HJ/T 167 Radon Monitor
2). Formaldehyde (mg/m <sup>3</sup> )	GB/T 18204.2-7.1 AHMT Spectrophotometry
3). Ammonia (mg/m <sup>3</sup> )	GB/T 18204.2-8.1 Spectrophotometry
4). Benzene (mg/m <sup>3</sup> )	GB 50325-2020 Appendix D
5). Toluene (mg/m <sup>3</sup> )	GB 50325-2020 Appendix D
6). Xylene (mg/m <sup>3</sup> )	GB 50325-2020 Appendix D
7). TVOC (mg/m <sup>3</sup> )	GB 50325-2020 Appendix E

- (b) The sampling interval of each parameter are as follow:

Parameters	Sampling Interval
1). Radon (Bq/m <sup>3</sup> )	1 Hour
2). Formaldehyde (mg/m <sup>3</sup> )	20 minutes
3). Ammonia (mg/m <sup>3</sup> )	10 minutes
4). Benzene (mg/m <sup>3</sup> )	20 minutes



5). Toluene (mg/m <sup>3</sup> )	20 minutes
6). Xylene (mg/m <sup>3</sup> )	20 minutes
7). TVOC (mg/m <sup>3</sup> )	20 minutes
Remarks: The total sampling time for each location will be around 1.5 hours.	

- (c) During the measurement, it is necessary to conduct the outdoor sampling in the upstream, and the result will be used as a reference for the calculation of indoor pollutants concentration. The number of outdoor sampling point will mainly depend on the number of indoor sampling points and the total number of sampling days. Please communicate with the institute to confirm the number of outdoor sampling points.
- (d) The measurement result will be compared with the limit as mentioned in Table 6.0.4 “Class I civil building engineering” and “Class II civil building engineering” of GB 50325-2020.
- (e) According to the requirement of GB 50325-2020 “Code for indoor environmental pollution control of civil building engineering”, for those building using natural ventilation, the measurement of Formaldehyde, Ammonia, Benzene, Toluene, Xylene and TVOC should be conducted 1 hour after closing all the windows of the building, and the measurement of Radon should be conducted after twenty-four (24) hours. For those buildings using HVAC system, the measurement should be conducted under normal HVAC operating conditions.
6. If the parameters or analytical method is different from the terms mentioned above, please do not hesitate to contact with our engineer for quotation.
  7. The Client should communicate with the coordinator on site and arrange the entry and exit for our staff.
  8. Our staff will confirm the sampling location with Client on site, during the measurement, the Client should make sure that the monitoring equipment will not be moved or disturbed.
  9. During the test, the Client should provide sufficient space for the setup of monitoring equipment, and ensure the safety of all institute’s equipment and away from any disturbance.
  10. During the test, the HVAC system onsite should be operated under normal conditions.
  11. The Client should make sure that the HVAC system is operated under normal condition during the measurement.
  12. The Client should provide a stable electrical supply for the equipment. (13A socket).
  13. For the measurement of decoration project, the Client should avoid any unnecessary entry of the monitoring area. Moreover, in order to avoid any disturbance to the measurement result, the Client should make sure that there isn’t any construction/job in progress near the sampling



location, otherwise, the Client should take their own responsibility for any affected measurement result.

14. Small amount of noise will be generated due to the pump inside the air monitor for air sampling.
15. In general, maximum two (2) sampling points will be monitored per day. However, more sampling points can be achieved based on availability of the monitors and can be further discuss.
16. The measurement report will be issued within 15 working days after completion of all the monitoring.
17. If the Client requests the extra report, the institute will charge the service fee of extra report according to item 5.11.
18. The result of the measurement only represents the condition during the monitoring.
19. The expedited processing in Item 5.1.15 must be specially arranged and agreed by IDQ before the submission of the service request form, and only available for certain items.
20. The institute will issue the invoice before issuing the test report. The Client should settle the invoice before getting the formal report.
21. If the test result fails to comply with the testing standard/criteria, the service request form should be applied again for additional test/re-test.
22. If the Client requests cancellation of the relevant service after settlement of the testing fee, the test fee paid will not be refunded
23. The Client will be responsible for any tax, insurance against all risks of damage to Client's and third parties' property.
24. When severe weather conditions (such as thunderstorm warnings, typhoon signal etc.) occur, IDQ may re-coordinate the sampling date with the Client, and the date of issuing report will also be postponed without holding any responsibility.
25. In any loss, omission from or any indemnity arising out of them, which is not caused by the professional negligence or misconduct of our staff, IDQ shall not hold any responsibility.
26. In any loss, fault in service provision, postponement or any indemnity arising out of them, which is directly or indirectly caused by the Client's failure to partially/ totally comply with its obligations hereunder or any force majeure, IDQ shall not hold any responsibility.
27. The Client will give written notice of all known safety or health hazards and special procedures applicable to the samples, or the on-site working environment for the measurement. IDQ may in its absolute discretion, refuse to provide services where it determines the provision of such services may pose a health or safety peril.