



AIDE MEMOIRE

Update on Ventilation Review of Managed Isolation and Quarantine Facilities

Date:	25 February 2021	Priority:	Medium
Security classification:		Tracking number:	2021-2533

Information for Minister(s)

Hon Chris Hipkins
Minister for COVID-19 Recovery

Contact for telephone discussion (if required)

Name	Position	Telephone	1st contact
Shayne Gray	General Manager, Service Quality and Assurance, MIQ	Privacy of natural persons	✓
Privacy of natural persons	Policy Director, MIQ		

The following departments/agencies have been consulted

Ministry of Health

Minister's office to complete:

- | | |
|---|--|
| <input type="checkbox"/> Approved | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Noted | <input type="checkbox"/> Needs change |
| <input type="checkbox"/> Seen | <input type="checkbox"/> Overtaken by Events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn |

Comments



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Purpose

The memo provides further information on the next steps for the review of ventilation systems in Managed Isolation and Quarantine Facilities, at the request of your Office.

Shayne Gray
General Manager, Service Quality and Assurance
Managed Isolation and Quarantine, MBIE

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Background

1. On 19 February 2021, the Ministries of Health (MoH) and Business, Innovation and Employment (MBIE) briefed you on the results of an initial desktop review and subsequent onsite assessment of the ventilation system in the Pullman hotel [MBIE 2021-2453] refers.
2. That joint aide memoire noted that the desktop assessment of the ventilation systems in the Pullman was part of a wider desk-top based review of ventilation systems across all Managed Isolation and Quarantine (MIQ) facilities. Your office has asked for further advice about the wider review.
3. The review of ventilation systems is a joint process, with MoH and MBIE taking the lead on different component parts: MoH has the lead on the desktop exercise, whilst MBIE will take the lead on the physical assessment process.

Review of Ventilation Systems

The original scope of the review was to undertake a desktop exercise ...

4. In December 2020 MoH commissioned a review of ventilation across the facilities. This review was originally designed as a desktop review of the design of the ventilation systems in the facilities.
5. The purpose of the review is to provide information on how the ventilation systems operate in a general manner, and how best to maximise ventilation options within each facility. More specifically, the following areas of interest are covered in the reports on each facility:

- a. An outline of the existing mechanisms of ventilation in the rooms and adjoining corridors
 - b. The range of possible ventilation scenarios in guest rooms and adjoining corridors
 - c. The different levers available to control ventilation in each of the facilities, and what settings and approaches would be recommended to maximise dilution of suspended droplet nuclei
 - d. Whether some wings in a facility have more favourable ventilation options than others
 - e. Operational considerations about the deployment of interventions into the built ventilation systems.
6. Preliminary reports on the desktop review of each facility are due with MoH at the end of February. As the preliminary reports have become available, they have been shared with a technical advisory group (TAG) who consider the findings and recommended mitigations. The TAG includes MBIE, infection prevention and control (IPC), and clinical public health representation. Actions to improve the ventilation and further reduce the risk of transmission in each facility have been taken as they have been identified and confirmed by the TAG.
7. The reports received to date have already provided an indication of some proactive measures that will need to be implemented across all facilities as required. These include:
- a. deploying additional air circulation and filtration systems in lifts and corridors; and
 - b. putting clear operating procedures in place where rooms have external opening windows or doors, requiring them to be closed before the door to the corridor is opened.
8. Once all of the preliminary reports have been considered MoH will provide a health report summarising the key findings of the desk top ventilation assessments. This will include a summary of the actions taken and in progress.

... which has now been extended to include physical inspections

9. As noted in the joint aide memoire of 19 February, an onsite assessment of the ventilation system in the Pullman has identified some discrepancies between the schematics of the system and how it is actually operating. As a result, MBIE have determined that the ventilation review of all of the facilities will need to include a physical assessment of all sites.
10. MoH will continue to lead the desktop exercise, and as the preliminary reports for each site are delivered MBIE will then – with the support of MBIE’s Building System Performance team – undertake a physical assessment of each facility.
11. The inspection programme is still in development and will not be fully scoped or procured until after all of the preliminary desktop reports have been received as the information will inform prioritisation of the facilities. At this stage, the scope of the physical review is likely to consider the actual physical performance of the installed ventilation system, comparing it to the approved design. This will establish a baseline level of actual performance and highlight any areas of risk which can then be triaged for further investigation and risk reduction options.
12. The physical assessment of the facilities will need to be undertaken by appropriately qualified professionals, and the examination of the facilities will need to be coordinated with when there is a ‘window of time’ in the facility that would be appropriate for the assessor(s) to

access guest rooms. These rooms will need to be vacant and deep cleaned before the assessor is able to enter them.

13. MBIE is still working through what process will be used to procure the appropriately qualified professionals. At this time we are looking at how the independently qualified persons who test and maintain specified systems for building warrants of fitness for the individual hotels might be contracted by MBIE to undertake this work. These people will be most familiar with the facilities and ideally placed to provide onsite information. Where these people are not available MBIE will need to reach out to other firms and contract the services in. This will be confirmed through the scoping process.
14. The indicative timeframe for undertaking and reporting on the physical assessments of the facilities is up to eight weeks, once the desktop review has been completed. This is because, as noted above, we will need to:
 - a. identify and procure the services of appropriate professionals who are willing to undertake the work
 - b. schedule inspections at times when the facilities are largely free of returnees to help mitigate any infection risks for the assessors
 - c. prioritise and base the focus of each physical assessment on the findings from the desktop exercise undertaken by MoH.
15. As the physical assessment reports are provided to MBIE, they will be shared with the TAG which will consider the findings and recommended mitigations.

Timeframes for delivery of the review

16. Initial timeframes for the delivery of the review are outlined in the table below. Please note that these may need to change depending on the availability of engineers and appropriate windows of time for them to enter facilities.

Date	Deliverable
December 2020	Ministry of Health commissioned desk top ventilation reviews of the facilities. These commenced in Christchurch, with assessments of facilities in other regions commencing in January 2021.
End of February 2021	All preliminary reports of the desk top ventilation assessments are due to the TAG by the end of February 2021, with final confirmation of recommendations and actions expected to be completed in early March 2021.
5 March 2021	Joint report (MoH / MBIE) summarising the findings, recommendations, and actions identified in the preliminary desk top ventilation assessments.
5 March 2021	Inspection programme scoped and planned out
End of March to mid-April 2021	Inspection programme completed
End of April to mid May	Joint report (MBIE / MoH) on full findings of the ventilation review and ways of mitigating the risks

17. Update reports will be provided to your Office over March and April, as the physical assessment of facilities is undertaken.