



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

JOINT AIDE MEMOIRE

Update on ventilation systems at the Pullman Hotel

Date:	19 February 2021	Priority:	High
Security classification:		Tracking number:	2021-2453

Information for Minister(s)

Hon Chris Hipkins
Minister for COVID-19 Recovery

Contact for telephone discussion (if required)

Name	Position	Telephone	1st contact
Dr Ashley Bloomfield	Director-General, Ministry of Health	Privacy of natural persons	✓
Megan Main	Deputy Secretary, Managed Isolation and Quarantine, MBIE		

The following departments/agencies have been consulted

N/A

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 Withdrawn |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 purpose of this aide memoire is to update you on recent developments with investigations into the ventilation system at the Pullman Hotel and the steps we are taking to respond.

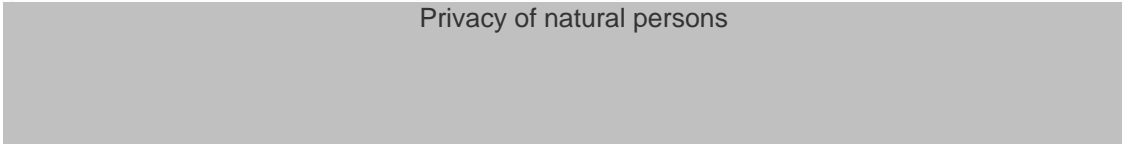
Dr Ashley Bloomfield
Director General
Ministry of Health

19 / 2 / 2021

Megan Main
Deputy Secretary, MIQ
Ministry of Business, Innovation and Employment

19 / 2 / 2021

Background and context

1.  Privacy of natural persons
2. The Ministry of Health expedited the initial ventilation 'desktop' assessment of the Pullman and received the final report on 31 January. Following this assessment, and prior to re-opening the Pullman on 16 February 2021, the following risk mitigation measures were put in place (*HR20210263 refers*):
 - a) The Pullman's corridor fresh air system is now operating 24 hours per-day to positively pressurise the corridors (implemented 27 January);
 - b) Returnees have been instructed to close all windows prior to opening their hotel room doors (e.g. for daily health checks or testing). This should encourage air to move from the corridor into the room, rather than vice-versa;

- c) The Pullman CCTV system has been upgraded to cover more areas of the facility in order to further strengthen monitoring of returnee movements;
 - d) Booking systems for exercise and smoking have been implemented to significantly reduce returnee movements throughout the facility;
 - e) Health checks and COVID-19 testing is being conducted from the doors of returnees' rooms to further reduce returnee movements throughout the facility;
 - f) The Pullman has been filled to around 50% capacity and no more returnees will be added. Only the lower floors of the building are occupied to increase the potential use of stairwells by able-bodied returnees where practicable, as well as reduce the duration of time returnees spend in the lifts.
 - g) The guidance for the use of personal protective equipment (PPE) was updated for MIQF staff to require the use of N95/P2 particulate respirators during any close interaction with a returnee (implemented – note that this has wider applications than the Pullman and applies to MIQF staff across the system).
3. There are currently 218 returnees in the Pullman from two flights. The first flight arrived on 16 February from Qatar, and the second flight arrived on 17 February from Brisbane. The second (and final) flight of returnees are scheduled to leave the Pullman on 3 March. As these two flights arrived within a 48-hour period, they are being managed as a single cohort within the facility. Allowing time for cleaning in between the departures, the next intake would be due to arrive on 5/6 March.

Onsite en-suite exhaust assessment

- 4. Given the ventilation assessment undertaken in late January consisted of a desktop (i.e. off-site) assessment of the intended or designed ventilation system at the Pullman, an onsite assessment of the air flow rates of the en-suite exhausts on level 7 of the Pullman was undertaken on Thursday, 18 February.
- 5. The en-suite exhausts on level 7 are served by fans on the roof and performed variably. This ranged from rooms that performed to over 100% of the designed exhaust rate, to rooms that had no exhaust flow, and two that had a negative exhaust rate (i.e. rather than pull air out of the en-suite, air was pushed *into* the en-suite).
- 6. It is currently unclear where this airflow is originating from, however, it is most likely that it is coming from the corridor fresh air supply. This could present a risk if the air is originating from another en-suite.
- 7. None of the en-suite exhaust grilles are physically connected to the ductwork, which is an unusual arrangement. Further, the en-suite exhaust systems require cleaning to remove dust and re-balancing. Re-balancing should equalise the pressure across the ductwork to ensure that flow rates are more balanced between the floors. This involves creating restrictions in some ducts to encourage air flow to more distant ducts.
- 8. The actual flow rate of the corridor fresh air supply was also found to be performing to about 38% of the design rate. This reduces the benefits of the corridor pressurisation mitigations we have implemented.
- 9. Although only level 7 was assessed, given the age of the building it may be that the exhaust systems on other floors are performing similarly.

Risks and implications

- 10. The international evidence is increasing regarding the relative importance of airborne transmission of SARS-CoV-2.

11. The findings of this onsite airflow assessment demonstrating inadequate bathroom exhaust systems on level 7 of the Pullman reinforces the risk mitigations we have in place to reduce the risk of airborne transmission (refer to paragraph 2). Additional enhancements to existing mitigations have been considered and are discussed below in 'Option 2'. The findings of the onsite air flow assessments do not provide any indication of the direct cause of the in-facility transmission events at the Pullman in January.
12. All of the multiple layers of controls within MIQ facilities have been designed with an understanding that hotels may have variable ventilation performance. The likelihood of room-to-room transmission remains very low relative to the likelihood of transmission in shared spaces, but in view of the onsite assessments, this cannot be excluded and further evaluation is required.
13. The likelihood of transmission in enclosed shared spaces with poor ventilation, such as the lifts, remains the most plausible explanation for these transmission events based on the source investigation and our understanding of the virus. Note that the risk of airborne transmission in the lifts has been mitigated through the installation of air filtration units in the lifts used by returnees.
14. A remediation plan will be developed as soon as possible to address the issues identified through this investigation. Given this was a spot check we need to understand whether the findings on level 7 is an isolated or widespread issue. The Pullman have some of their engineers coming onsite on Monday to work through remediation actions. They have advised that they undertook some cleaning on the duct work during the previous close down but they believe the area that has been highlighted in this report may have been missed. MBIE will peer review the plan that the Pullman's engineers produce. We will report back to you on this as soon as possible.

Immediate Response

15. Following the report received last night, we have considered two main options in terms of our immediate response to the findings.

Option 1: Move everyone out

16. As per paras 12 and 13 above, the likelihood of room-to-room transmission remains very low relative to the likelihood of transmission in shared spaces and the likelihood of transmission in enclosed shared spaces with poor ventilation, such as the lifts, remains the most plausible explanation for these transmission events based on the source investigation and our understanding of the virus.
17. The risk of person-to-person transmission will be increased during the transfer of returnees to alternative MIQs (e.g. via interactions on the bus). There is also the potential for heightened risk to staff during the transfer process given the increased frequency and duration of interactions with returnees this involves.
18. Auckland MIQ facilities are currently at 92% capacity. As such, there is very limited to absorb the returnees who are currently at the Pullman into other Auckland facilities. Moving people out of the Pullman would require breaking the returnees up across a number of other MIQ facilities and placing them on floors with other returnees who are much further into their stay, increasing risk.
19. Moving Pullman returnees regionally is also limited as there are 463 returnees scheduled to arrive today and 390 scheduled to arrive tomorrow, most of whom have been allocated MIQ places in Hamilton and Rotorua.

20. The logistics of scheduling transport to transfer returnees at late notice going into the weekend would also be extremely challenging.
21. An “emergency” evacuation from the Pullman could well result in panic amongst the returnees who have been placed there and a significant loss of public confidence in the MIQ system. This is not proportionate to the findings of the report.

Option 2 (chosen): Keep current returnees in but implement further risk mitigations, and no more returnees until issues identified are resolved or mitigated

22. On the basis of current public health advice, we have decided to keep the current returnees at the Pullman until the end of their stay with further risk mitigations in place. This is because the health and safety and transmission risks of relocating returnees to multiple other MIQ facilities are higher than having them remain in the Pullman. Additional mitigations will be put in place for these returnees. These are:
 - An additional test for returnees at Day 6/7 (with the test being done by staff on the threshold the returnee’s room);
 - Implementing post-departure isolation and day 5 testing IF cases are identified in either Day 6/7 or Day 11/12 tests; and
 - Implementation of additional air filtration units in the corridors of the currently occupied floors (floors 1-4). We are currently working through the logistics of emergency procurement of suitable units and installation plans.
23. Next week we will undertake further detailed analysis of what work needs to be undertaken onsite to respond to the findings of this report. We will report back to you on the results of that analysis and timing for the work to be undertaken as soon as possible.

Implications for taking the Pullman offline

24. MIQ is currently fully booked during March. Removing the Pullman from use as an MIQ facility during this time will require MIQ to once again use contingency rooms for returnees in March. This will limit MIQs ability to respond to any other events during this period.
25. However, we are currently holding 1,000 rooms a fortnight in April/May. If the Pullman is offline beyond March then we can rebalance capacity by releasing fewer of these vouchers in order to rebuild contingency. MIAs vouchers have not yet been released for June onwards.
26. If a decision is made that the Pullman is no longer fit-for-purpose then that would result in the loss of approximately 280 rooms from MIQ capacity. The two options would be to either reduce overall capacity in response or bring another one (or more) new MIQ facilities into the system to offset the loss of the Pullman.
27. Once these returnees have completed their MIQ stay, no more will be introduced until any required changes/re-balancing is made to the ventilation system.

Communications to current returnees and staff at the Pullman

28. We will provide communications to returnees and staff at the Pullman explaining the upcoming changes to testing regimes and the installation of air filtration units in the

corridors. This will be distributed to returnees and staff on the evening of Sunday, 21 February.

29. We will also develop reactive messaging for media queries.

Ventilation review and other MIQ facilities

30. The desktop assessment of the ventilation systems in the Pullman is part of a wider desktop-based review of ventilation systems across all MIQ facilities. The preliminary findings of these are due to be submitted to us by the end of February. As those reports are received, officials from both Ministries are reviewing them to understand whether there are other issues that need to be considered.
31. It is important to place this investigation and the previous cross-infections in the Pullman in the context of the fact that over the last eleven months 110,000 returnees have completed stays at MIQs safely and without intra-MIF transmission of COVID-19. However, given the findings of this onsite assessment, we will now need to consider our approach for conducting ventilation reviews of the remaining 31 MIQ facilities. We will report back to you on this next week.
32. A connected piece of work is a review of the criteria for MIQ facilities. MBIE MIQ and MoH are undertaking a desktop based assessment of the criteria for facilities and how well the 32 facilities measure up against those criteria. The criteria focus on management of public health and security risks as well as maintaining returnees wellbeing. This review is due to be reported back to you in early March, and analysis of the findings of the review is currently underway. Included in the public health criteria for facilities is the need for appropriate ventilation systems. The review in early March will report back on how the facilities have been assessed against all criteria except for the ventilation requirements; because those will be reported back separately once the full ventilation review has been undertaken.