DEPARTMENT OF HEALTH & HUMAN SERVICES

Memorandum

Indian Health Service
Office of Environmental Health & Engineering
Division of Engineering Services

Date: December 22, 2022

From: Director, DES - Authority Having Jurisdiction (AHJ) for the IHS

Subject: PIMC Fast Track Waiting Room

To: Operations Branch Chief, Phoenix Area OEHE

This memorandum is in response to your request dated December 1, 2022, for an AHJ decision for the Phoenix Indian Medical Center (PIMC) Emergency Department (ED) overflow waiting area known as the Fast Track waiting area. You requested the Fast Track waiting area be defined as a "non-public" waiting area. You also requested guidance for the correct ventilation standard to use in design of the Fast Track waiting area. The DES Codes Committee reviewed the information you provided and has provided the AHJ with their recommendations. The AHJ concurs with the Codes Committee recommendations, and issues the following decision:

1. The Fast Track waiting area cannot be defined as a non-public waiting area, because there is no ventilation standard defined for a non-public waiting area.
2. The ventilation standard to use for the Fast Track waiting area should be the same as the ED public waiting area, if this space is to be permanent, which is ASHARE 170-Ventilation of Health Care Facilities.
3. The Fast Track waiting area is approved for use with the existing ventilation system without modification for as long as the purpose of this space is defined as temporary to address an emergency need.

Michael R. Weaver -S

Digitally signed by Michael R. Weaver -S
Date: 2022.12.22 14:20:22 -06'00'

Director, Division of Engineering Services
Authority Having Jurisdiction for the IHS

Attachments: Original email request
SBAR
Code Committee Recommendations

cc: Kenny Hicks, PHAO
Steve McGovern, PHAO
Denman Ondelacy, DES
Nick Lu, DES
Alex Gamble, DES
James Aberle, DES
Scott Fillerup, DES

Division of Engineering
Services
Indian Health Service

Division of Engineering Services Codes Committee Review Summary

Decision No. 2022.002

REFERENCE: Email December 1, 2022, including SBAR from CDR Roger Dahozy, PE, MPH, CHFM

ISSUE: Ventilation at PIMC Fast Track Waiting Area

LOCATION: Phoenix, AZ – Phoenix Indian Medical Center (PIMC)

BACKGROUND: On December 1, 2022, The Division of Engineering Services (DES) received an electronic mail correspondence and Situation, Background, Assessment, and Recommendation (SBAR) document from the Phoenix Area OEHE regarding ventilation requirements at an overflow waiting area for the Phoenix Indian Medical Center known as the "Fast Track Waiting Area". The email requested "the services of the Authority Having Jurisdiction (AHJ) to help resolve a code interpretation and area designation matter".

The area that is being used for the fast track waiting area is not designed as an ED Waiting Area, but has been converted for this use on an emergency basis, and interim measures are being taken to mitigate risks associated with potential spread of infectious airborne diseases. The key concern of the initial request was a lack of adequate ventilation in the space. The 2021 ASHRAE 170 requires 12 Air Changes per Hour (12 ACH) in ED Public Waiting Areas, and is silent on the required ventilation rate at all other types of waiting areas except radiology waiting rooms.

REQUEST: The Phoenix Area Office's request is twofold:

1. That the fast track waiting area be defined by the AHJ as a "non-public waiting area" because PIMC has implemented a screening process in the ED waiting area that screens patients for COVID-19 and tuberculosis before they are sent to the fast track waiting area. Obtaining a written decision by the AHJ on this matter, is a proactive measure by PIMC leadership to have documentation on hand in the event this issue is raised by accreditation bodies.
2. That the AHJ provide guidance as to the correct ventilation standard to use in design of the fast track waiting area.

DISCUSSION:

The DES Codes Committee considered this from two (2) perspectives: Permanent Change of Use and Implementation of Temporary Mitigating Strategies Through the Risk Assessment Process:

1. Permanent Change of Use

a. 2021 NFPA 101-43.7.1.1 requires "A change of use that does not involve a change of occupancy classification shall comply with the requirements applicable to the new use in accordance with the applicable existing occupancy chapter…"

b. The applicable ventilation standard is ASHRAE 170 - Ventilation of Health Care Facilities.

c. ASHRAE 170-2021 has ventilation standards for two waiting areas: emergency department public waiting areas, and radiology waiting rooms programmed to hold patients who are waiting for chest x-rays for diagnosis of respiratory disease.

d. ASHRAE 170-2021 is silent on ventilation requirements for all other waiting areas.

e. ASHRAE 170-2021 Paragraph 7.1.a.2 states: "The ventilation requirements in this table are intended to provide for comfort as well as for asepsis and odor control in spaces of a health care facility that directly affect patient care. For spaces not specifically listed here, ventilation requirements shall be that of functionally equivalent spaces in the table. If no functionally equivalent spaces exist in the table, ventilation requirements shall be obtained from ASHRAE Standard 62.1 in the absence of other codes or standards that govern those space ventilation rate requirements. Where spaces with prescribed rates in both standard 62.1 and Table 7-1 of this standard exist, the higher of the two air change rates shall be used."

f. ASHRAE 62.1 offers 3 occupancy categories that appear to be appropriate to consider. These are:

i. Public Assembly – Lobbies
ii. Office Building – Main Entry Lobbies
iii. Office Building – Reception Areas

2. Implementation of Temporary Mitigating Strategies Through the Risk Assessment Process

a. The Risk Assessment (RA) is a tool used by healthcare organizations to evaluate risks associated when situations and/or conditions for which clear standards are not available, or when situations and/or conditions arise for which time or other resources are not available to address through standard practices and codes. Once the RA is complete the results are used to reduce risk through a hierarchy of controls.

b. When performing RA, experts in the field and those who have intimate knowledge of the circumstances consider existing standard practices and codes, and apply appropriate concepts and principles from standard practices and code to eliminate where possible, and mitigate when not possible the risks associated with the situations and/or conditions.

c. To be clear, RA is a tool, not a code or standard. Many codes and standards refer to the use of RA tools and accrediting bodies require their use, but the DES Codes Committee does not know of an applicable code that requires a specific RA format.

d. Because of the requirement for intimate knowledge of the circumstances surrounding the RA, PIMC has authority to perform and manage the RA program at the facility level, and the Phoenix Area IHS has authority to provide oversite of the RA program at PIMC. For this reason, the IHS AHJ will only provide a general recommendation and will not provide direct guidance relative to the RA process associated with the fast track waiting area unless directly asked to provide additional guidance to

that effect.

RECOMMENDATIONS:

1. Code Related:

a. In regard to the request that the Fast Track Waiting Area be defined by the AHJ as a "non-public waiting area", it is the opinion of the DES Codes Committee that the Fast Track Waiting Area should **NOT** be defined as a non-public waiting area, because there is no ventilation standard identified for a non-public waiting area.

b. In regard to the request that the AHJ provide guidance as to the correct ventilation standard to use in design of the fast track waiting area for a permanent change of use, it is the opinion of the DES Codes Committee that the use of Fast Track Waiting Area is most similar to an Emergency Department Public Waiting Area despite the interim screening process that is currently underway at the larger emergency department waiting area at PIMC.

c. If PIMC elects to use the Fast Track Waiting Area on a permanent basis, then PIMC should bring the space into compliance with ASHARE 170-Ventilation of Health Care Facilities.

2. Non-Code Related:

d. In regard to the consideration of RA, it is the opinion of the DES Codes Committee that the recommendations above do not limit the facility in the use of the space, without permanent and appropriate modification(s) to the ventilation system(s), as an overflow waiting room on a temporary basis as considered through their local RA process and with oversite from the Phoenix Area IHS. As with all RA processes, the facility should take necessary and appropriate steps to eliminate or mitigate risks to visitors and staff associated with the level of ventilation.

SIGNATURES:

☒Concur	☐Do Not Concur	Date: 12/22/2022	Name: Alex D. Gamble, AIA Vice-Chairman, Codes Committee *(Architect, TX & Lic. 24047)* Alex D. Gamble -S Digitally signed by Alex D. Gamble -S Date: 2022.12.22 10:54:48 -06'00'
☒Concur	☐ Do Not Concur	Date: 12/22/2022	Name: Scott Fillerup., P.E. *(Mechanical Engineer, AZ & Lic.* 51857*)* *SME Consultant to Code Committee*
☒Concur	☐ Do Not Concur	Date: 12/19/2022	Name: James Aberle, AIA *(Architect, TX & Lic. 21097)*
☒Concur	☐ Do Not Concur	Date: 12/19/2022	Name: Nick Lu, P.E. Chairman, Codes Committee *(Structural, WA & Lic. 42309)*

e-cc
Aberle
Gamble
Lu
Fillerup
Ondelacy

Bibliography:

- 2021 NFPA 101 Life Safety Code
- ASHRAE Standard 170-2021 Ventilation of Health Care Facilities
- ASHRAE Standard 62.1-2021 Ventilation and Acceptable Indoor Air Quality

Attachments:

- Original SBAR from PIMC
- Original email correspondence

From: Weaver, Michael R. (IHS/DES)
Sent: Thursday, December 1, 2022 6:58 PM
To: Dahozy, Roger N (IHS/PHX) <Roger.Dahozy@ihs.gov>
Cc: Hicks, Kenny (IHS/PHX) <Kenny.Hicks@ihs.gov>; McGovern, Steve (IHS/PHX) <Steve.McGovern@ihs.gov>; Zunino, Heather (IHS/PHX) <Heather.Zunino@ihs.gov>; Barber, Douglas W (IHS/PHX) <Douglas.Barber@ihs.gov>
Subject: RE: Requesting AHJ Services for the Phoenix Indian Medical Center

Roger, receipt is acknowledged by DES of the PH Area AHJ review action detailed in your email below and attachment. The DES Code Committee will need to review your request and advise me of their recommendation. I will then respond to you with the AHJ decision.

Thank you

Michael R. Weaver, P.E., BCEE

Director, Division of Engineering Services

CAPT, USPHS (Ret.)

OEHE, IHS

206-615-2460

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From: Dahozy, Roger N (IHS/PHX) <Roger.Dahozy@ihs.gov>
Sent: Thursday, December 1, 2022 6:13 PM
To: Weaver, Michael R. (IHS/DES) <Michael.Weaver@ihs.gov>
Cc: Hicks, Kenny (IHS/PHX) <Kenny.Hicks@ihs.gov>; McGovern, Steve (IHS/PHX) <Steve.McGovern@ihs.gov>; Zunino, Heather (IHS/PHX) <Heather.Zunino@ihs.gov>; Barber, Douglas W (IHS/PHX) <Douglas.Barber@ihs.gov>
Subject: Requesting AHJ Services for the Phoenix Indian Medical Center

Dear Mr. Weaver:

The Phoenix Indian Medical Center (PIMC) has requested the services of the Authority Having Jurisdiction (AHJ) to help resolve a code interpretation and area designation matter. The attached SBAR provides the details of the request. PIMC is requesting that the AHJ to interpret and provide a

designation of a small waiting area within the hospital, down the corridor from the Emergency Department. Earlier this year PIMC re-purposed and opened a small waiting room (“Fast Track waiting room”) to help with the overload of patients entering the Emergency Department Waiting Area. This waiting room currently does not meet ASHRAE 170-2008 design parameters for air changes per hour for an “ER waiting room”, which is negative pressure and at least 12 changes per hour. Hence, PIMC is requesting that the “Fast Track waiting room” be designated as a "non-public waiting area", because it is private and secure based on the screening measures they have implemented. A non-public waiting area would relieve PIMC from adhering to the strict ED Waiting Area ventilation requirements.

Feel free to contact me if you have any questions.

Roger N. Dahozy, PE, MPH, CHFM

CDR, U.S. Public Health Service Commissioned Corps

Operations Branch Chief

Phoenix Area Office, Office of Environment of Health & Engineering, DFE

(480) 363-9576

SITUATION

An extension of the Phoenix Indian Medical Center (PIMC) Emergency Department (ED) known as “Fast Track” has a small waiting room that does not meet ASHRAE 170 design parameters for air changes per hour for public ED Waiting rooms.

BACKGROUND

The current flow of patients in the ED is such that all patients enter through the north entrance of the ED where they are triaged and screened for COVID-19 and Tuberculosis by a nurse or a medical provider. Once screened and triaged, patients will wait in one of three waiting rooms. See APPENDIX A for reference drawing.

There are two main waiting areas serving the ED and one smaller waiting room serving the Fast Track portion of the ED. The Fast Track waiting room is separated from the two main ED waiting areas by approximately 100ft of corridor and can only be accessed by patients who screen *negative* for COVID-19 and Tuberculosis. The Fast Track waiting room front door has been removed, making the waiting area open to the corridor.

ASHRAE 170 (2017) Table 7.1 *Design Parameters – Hospital Spaces*, states that an “emergency department public waiting area” shall have negative air pressure and at least 12 air changes per hour. These design parameters have been applied to public ED waiting areas with the intention of preventing highly-contagious infectious diseases, such as Tuberculosis and COVID-19, from being transmitted to other staff and patients.

ASSESSMENT

The volume of the Fast Track waiting room is 1,624ft^3 and is served by one supply air duct and one return air duct. On 9/21/21, the air volume supplied to this room was measured to be +159ft^3/min and the air volume returned from this room was measured to be -281ft^3/min. This yields a net volume air change rate of -122ft^3/min. Because this room has a negative net volume ventilation scheme, air is pulled from the corridor into the Fast Track waiting room and the return air change rate is used to calculate the total air changes per hour. This yields an air change rate of 10.4 air changes per hour.

The Normative Note *q*, referring to public ED waiting rooms in ASHRAE 170 (2017) Table 7.1 states, “When these areas are open to larger, non-waiting spaces, the exhaust air volume shall be calculated based on the seating area of the waiting area. (Informative Note: The intent here is to not require the volume calculation to include a very large space [e.g., an atrium] just because a waiting area opens onto it).” For this reason, the corridor has been excluded from the air change rate calculations.

Though the space does not provide 12 air changes per hour, procedural steps have been put into place to offer the same protection or higher against transmitting Tuberculosis and COVID-19 to other patients and providers. From these procedural implementations, the Fast Track is no longer open to public and should not be considered a “public” ED waiting area per ASHRAE 170.

RECOMMENDATIONS

As the Fast Track waiting area is not open to the public and only patients who screen *negative* for COVID-19 and Tuberculosis are granted access, PIMC Engineering recommends that the AHJ define the Fast Track waiting area to be a non-public waiting area.

APPENDIX A: ED Waiting and Patient Path Map to Fast Track