Subject: Clarification of the Term “Airlock”

BACKGROUND

The Texas Asbestos Health Protection Rules (TAHPR) require a worker decontamination system in the regulated area under 25 TAC 295.60(e). This system consists of a clean room, shower room, and equipment room, each separated from the other and from the containment area by airlocks. TAHPR currently does not define the term “airlock.”

RESPONSE

The Texas Department of State Health Services (DSHS) defines an “airlock” as a mechanism consisting of doors and/or curtains that control air-flow patterns in the doorway such that the air flows only towards the inside of the enclosure to which the decontamination system is attached.

DISCUSSION

An airlock is a requirement of a decontamination system referenced in the TAHPR under 25 TAC 295.60(e).

Decontamination system. A worker decontamination enclosure system in the regulated area shall be used consisting of a clean room, shower room, and equipment room, each separated from the other and from the containment area by airlocks accessible through doorways. Except for the doorways and the make-up air provisions for the enclosure, the worker decontamination system shall be sealed against leakage of air. All personnel must exit the containment area through the shower before entering the clean room. No asbestos-contaminated individuals or items shall enter the clean room.

In OSHA, 29 CFR 1926.1101(b), defines Decontamination area as follows:

Decontamination area means an enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.
The DSHS concurs with OSHA, 29 CFR 1926.1101, Appendix F, Work Practices and Engineering Controls for Class I Asbestos Operations Non-Mandatory, which states the following:

**Airlocks:** Airlocks are mechanisms on doors and curtains that control the air flow patterns in the doorways. If air flow occurs, the patterns through doorways must be such that the air flows toward the inside of the enclosure. Sometimes vestibules, double doors, or double curtains are used to prevent air movement through the doorways. To use a vestibule, a worker enters a chamber by opening the door or curtain and then closing the entry before opening the exit door or curtain.

Airlocks should be located between the equipment room and shower room, between the shower room and the clean room, and between the waste storage area and the outside of the enclosure. The air flow between adjacent rooms must be checked using smoke tubes or other visual tests to ensure the flow patterns draw air toward the work area without producing eddies.

A functional airlock may be achieved through a variety of designs. Some decontamination systems have five stages, which include two additional chambers, one installed between the clean room and shower room and the second installed between the shower room and equipment room. Other systems include three stages and achieve the airlock using a system of overlaying flaps. The TAHPR requires the decontamination system to have a minimum of three chambers (clean room, shower room, and equipment room) and must function as described above and ensure that the air flows toward the inside of the enclosure.

**FREQUENTLY ASKED QUESTIONS**

1. Is a five-stage decontamination facility required by TAHPR?

   Answer: No. The TAHPR requires a clean room, shower room, and equipment room separated by airlocks.

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