

BUILDING HUMIDIFICATION

ISSUE:

Use of steam from the facility's boiler plant for building humidification.

BACKGROUND:

VA criteria allow use of direct steam from its boiler plants, a ready and reliable source of steam. However, there has been some concern expressed in the industry because of the chemicals used to treat boiler water.

DISCUSSION:

VA's DASHO (Designated Agency Safety and Health Official) issued a memorandum dated October 4, 1990, communicating OSHA's position on its Hazard Communication Standard for airborne anti-corrosive chemicals from steam injection humidifiers. OSHA classified these chemicals as consumer products under 29 CFR 1910.1200 (b) (6) (vii). Therefore, DASHO determined modification of VA humidification was not required and special notification of building occupants of the presence of these chemicals was not required by OSHA. However, the DASHO, recommends that for new construction, humidification systems that do not require the use of the facility's boiler water should be considered. The following table shows comparisons of various types of steam humidifiers.

Humidifier	Initial Cost	Energy Cost	Maintenance Frequency	Life Cycle Cost
Direct Steam	1	1	1	1
Steam-to-Steam	5	2	3	3
Electronic Steam (Electrode Type)	3	4	4	4
Electronic Steam (Immersed Element)	3	4	4	4
Electronic Steam (With immersed element with ionic bed)	3	4	2	3

* Table based on an article published in The NEWS dated February 23, 1998.

Ranking: 1 = Excellent, 2 = Very good, 3 = Good, 4 = Fair, and 5 = Poor

RECOMMENDATION:

1. Follow VA criteria. For new construction consider humidification system that does not require use of facility's boiler steam as recommended by DASHO.

FOR ADDITIONAL INFORMATION:

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