Preventing Transmission of Viruses with the Uniform Plumbing Code (UPC)

The recent Covid-19 epidemic has brought us back to the basic concepts on how to minimize the spread of germs and disease. One effective way is by washing your hands. This very fundamental action is supported by the requirement of potable water in the Uniform Plumbing Code (UPC).

Water Supply (Chapter 4): The UPC provides guidance on potable water supplied for bathing, washing, laundry, cooking, dishwashing and maintenance of plumbing systems; an essential part of hygiene for the health and safety of all. A potable water supply system should be installed and maintained in such a manner to prevent contamination from nonpotable liquids, solids, or gases. The preventive measures for fixtures and appliances can be applied to prevent cross-contamination of the potable water piping and fixtures by requiring backflow devices.

Fixtures (Chapter 6): The minimum number of fixtures such as water closets and lavatories to be accessible should be accessible. Additionally, every fixture should meet minimum standards to protect the potable water from contamination by the materials used and ensures functionality and reliability.

Health Care Facilities (Chapter 13): Water is an essential resource for hygiene, cleaning equipment and removing infectious waste from facilities such as health care facilities. The UPC puts provisions in place to protect places that cannot do without water such as hospitals. These environments have patients, workers, and guests who rely on water to clean, hydrate and prevent contamination. The UPC requires not less than two approved potable water sources, that need to be installed in such a manner as to prevent the interruption of potable water service needed to prevent contamination.

In addition to the water supply, the UPC contains provisions for medical gas to hospitals that take careful measures to prevent these medical gas lines from contamination. Furthermore, the UPC requires that persons who enter these healthcare facilities to install or remodel plumbing systems, to be certified under ASSE/IAPMO 12010, ASSE/IAPMO 12030 and ASSE/IAPMO 12040. These standards provide minimum knowledge to the workers to protect themselves and the persons within these facilities from becoming infected or spreading an already present infection. The UPC also protects ice in healthcare facilities by requiring such ice-making units to be located in the nursing stations or other supervised locations to minimize the potential of contamination.

Wastewater (Chapters 7, 8 and 9): The UPC contains provisions to remove the wastewater that may have been used by an infected person or on infected equipment that was cleaned. It is essential to remove the wastewater and following all waste and venting minimum requirements in the UPC. That waste needs to leave the premise and any particles in the venting system must be directed to the outdoors. Provisions for ancillary equipment such as those used in food handling establishments, sterilizers, and equipment that produce condensate are addressed to ensure proper flow into receptors and prevent contamination by appropriate backflow measures

Wastewater (Chapters 7, 9 and 10): The UPC provides approved materials, the required slopes, size and length limitations in the drains and venting systems that will keep all trap seals from being siphoned or drying out, thus preventing any harmful sewer gases from entering the premises.

No shortcuts can be taken for these minimum requirements. The UPC takes health and safety seriously in its code and the minimum requirements within are there to prevent contamination of the environment and drinking water supply and reduce or prevent the risk of contamination.