

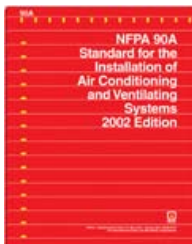
AQUIS Compliance Document

- NFPA 90A “Standard for the Installation of Air Conditioning and Ventilating Systems”
- International Mechanical Code
- Uniform Mechanical Code

Executive Summary

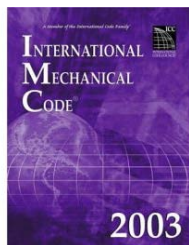
The AQUIS CPR-1 System is a proprietary composite coating system designed to refurbish HVAC mechanical air handling units. The CPR-1 system is applied to the condensate pan and is intended to eliminate standing water; eliminate bacterial/fungal growth; halt corrosion/rust; eliminate water leaks, and comply with all regulatory requirements (ASHRAE, NFPA, International Mechanical Code, etc). This document addresses the NFPA 90A, International Mechanical Code and Uniform Mechanical Code requirements.

As seen in the excerpts below, supplementary materials added to the interior of an air handler must have a maximum flame spread index of 25 and a maximum smoke developed index of 50 when tested in accordance with NFPA 255 or ASTM E84 (NFPA 255 is equivalent to ASTM E84; either test can be used to demonstrate compliance). *The AQUIS System demonstrated a flame spread index of 15 and a smoke developed index of 30 (Ref: Test Report Number: 676304-01) when tested at actual application thicknesses.*



NFPA 90A, Section 4.3.3 Supplementary Materials for Air Distribution Systems.

“4.3.3.1 Pipe insulation and coverings, duct coverings, duct linings, vapor retarder facings, adhesives, fasteners, tapes, and supplementary materials added to air ducts, plenums, panels, and duct silencers used in duct systems, unless otherwise provided for in 4.3.3.1.2 or 4.3.3.1.3, shall have, in the form in which they are used, a maximum flame spread index of 25 without evidence of continued progressive combustion and a maximum smoke developed index of 50 when tested in accordance with NFPA 255, *Standard Method of Test of Surface Burning Characteristics of Building Materials.*”



International Mechanical Code, Chapter 6, Duct Systems

“Section 602.2.1, Materials exposed within plenums shall be noncombustible or have a flame spread index of not more than 25 and a smoke developed index of not more than 50 per American Society of Testing and Materials (ASTM) E 84”

Joint Commission Note

It should also be noted the NFPA 90A code is a requirement for the Joint Commission

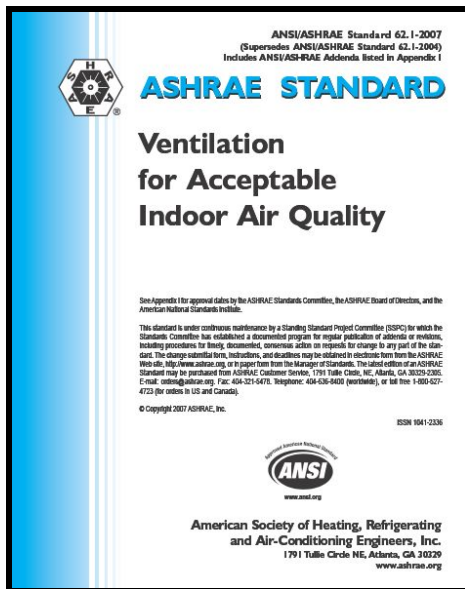
AQUIS Compliance Document

- ANSI/ASHRAE 62.1 – 2007 “Ventilation for Acceptable Indoor Air Quality”

Executive Summary

The AQUIS CPR-1 System is a proprietary composite coating system designed to refurbish HVAC mechanical air handling units. The CPR-1 system is applied to the condensate pan and is intended to eliminate standing water; eliminate bacterial/fungal growth; halt corrosion/rust; eliminate water leaks, and comply with all regulatory requirements (ASHRAE, NFPA, etc). This document addresses the ANSI/ASHRAE 62.1 requirement.

As seen in the excerpt below, the requirement for a condensate pan is that it is sloped a minimum of 0.125 inch per linear foot, and the drain outlet is located at the lowest point in the condensate pan. The purpose of this requirement is to ensure no standing water exists in the condensate pan. Standing water is the primary source of bacterial/fungal growth in an HVAC air handler. The AQUIS CPR-1 System is designed to provide a slope of 0.25 inch per linear foot; twice the ASHRAE requirement.



5.11 Drain Pans. Drain pans, including their outlets and seals, shall be designed and constructed in accordance with this section.

5.11.1 Drain Pan Slope. Pans intended to collect and drain liquid water shall be sloped at least 0.125 in. per foot (10 mm per meter) from the horizontal toward the drain outlet or shall be otherwise designed to ensure that water drains freely from the pan whether the fan is on or off.

5.11.2 Drain Outlet. The drain pan outlet shall be located at the lowest point(s) of the drain pan and shall be of sufficient diameter to preclude drain pan overflow under any normally expected operating condition.

5.11.3 Drain Seal. For configurations that result in negative static pressure at the drain pan relative to the drain outlet (such as a draw-through unit), the drain line shall include a P-trap or other sealing device designed to maintain a seal against ingestion of ambient air while allowing complete drainage of the drain pan under any normally expected operating condition, whether the fan is on or off.

Joint Commission & U.S. Green Building Council Note

It should also be noted the ANSI/ASHRAE 62.1 – 2007 Standard is a requirement for the *Joint Commission* and is a prerequisite to meet the *U.S. Green Building Council's* Indoor Environmental Quality standards for LEED Accreditation.