

Notes to Part 2

Administrative Provisions

A-2.3.1. Alternative Solutions. Beyond the purposes of demonstrating compliance and acquiring an installation permit, there are other important reasons for requiring that the proponent of an alternative solution submit project documentation (i.e. a compliance report) to the authority having jurisdiction and for the authority having jurisdiction to retain that documentation for a substantial period following the installation of a plumbing system:

- Most jurisdictions require that a plumbing system be maintained in compliance with the codes under which it was installed. Alternative solutions made possible by objective-based codes may have special maintenance requirements, which would be described in the documentation.
- Documentation helps consultants perform code compliance assessments of existing buildings or facilities before they are sold and informs current owners or prospective buyers of existing buildings or facilities of any limitations pertaining to their future use or development.
- Documentation provides design professionals with the basic information necessary to design changes to an existing plumbing system.
- An alternative solution could be invalidated by a proposed alteration to a plumbing system. Designers and regulators must therefore know the details of the particular alternative solutions that were integral to the original design. Complete documentation should provide insight as to why one alternative solution was chosen over another.
- Documentation is the “paper trail” of the alternative solution negotiated between the designer and the regulator and should demonstrate that a rational process led to the acceptance of the alternative solution as an equivalency.
- It is possible that over time a particular alternative solution may be shown to be inadequate. It would be advantageous for a jurisdiction to know which plumbing systems included that alternative solution as part of their design: documentation will facilitate this type of analysis.
- Project documentation provides important information to a forensic team that is called to investigate an accident or why a design failed to provide the level of performance expected.

This subject is discussed in further detail in “Recommended Documentation Requirements for Projects Using Alternative Solutions in the Context of Objective-Based Codes,” which was prepared for the CCBFC Task Group on Implementation of Objective-Based Codes and is available on NRC’s Web site.