

## STATE BUILDING CODE INTERPRETATION NO. I-13-11

July 22, 2011

The following is in response to your request for formal interpretation dated July 21, 2011.

### Question:

Does Section 608.16.4 or 608.16.6, of the 2003 International Plumbing Code portion of the 2005 State Building Code, require that the potable water supply to an automatic fire sprinkler and standpipe system be protected with a reduced pressure principle backflow preventer (RPD)?

### Answer:

No, the above mentioned code sections allow a double check-valve assembly (DCVA) or an RPD to protect the potable water supply to an automatic fire sprinkler system or standpipe system.

Section 608.16.4.1, of the above code, gives specific cases where an RPD is required on sprinkler systems. It should be noted that a double check-valve assembly is only rated for low-hazard applications where the potential contamination source does not create a threat to public health but is capable of adversely and unreasonably affecting the aesthetic qualities of the potable water supply. High-hazard applications where the automatic sprinkler systems contain chemical additives, antifreeze or that can be served by a non-potable external water source that is a hazard to public health through poisoning or the spread of disease is required to be isolated from the potable water supply by a reduced pressure principle backflow preventer. The code official and system designer must investigate all potential secondary water sources used for fire fighting, which can be introduced into the fire department connection, to establish the degree of hazard before determining the appropriate type of backflow prevention device. This is also consistent with an ICC Formal Interpretation on the subject (see attached) and the Connecticut State Health Regulation regarding backflow protection for fire sprinklers.

This formal interpretation supersedes the previously issued Formal Interpretation I-18-09 regarding this issue.