



TO: Development Services Customers

SUBJECT: **INFORMATION BULLETIN 209**
Existing Buildings – Mechanical Equipment
Commissioning and HVAC Controls - Shutoff Dampers and Economizers

DATE: October 8, 2012/*Revised August 25, 2016*

CREATED BY: Plan Review Division

Purpose:

As a customer service initiative, the Development Services Department (DSD) created this **revised** bulletin to update Information Bulletin (IB) 209 which covered shutoff damper requirements of the 2009 International Energy Conservation Code (IECC). The IB was updated to the 2015 IECC as well as expanded to include the requirements for commissioning, HVAC controls, and economizer requirements of the energy code in relation to existing commercial buildings.

Scope:

New Construction

Newly constructed commercial buildings shall follow either the 2015 IECC for new construction in Section C403 Building Mechanical Systems or Section 6 of ASHRAE 90.1-2013. Compliance includes requirements for all equipment sizing, and HVAC system controls. HVAC system controls include Class 1 motorized shut-off dampers (or alternative gravity dampers), economizers with fault protection, energy recovery systems, etc. The requirements include submissions of plans for commissioning at permitting and commissioning reports (testing results) if required by section C408 or section 6.7.2.4.

Additions

Additions to an existing building would comply with all requirements of Section C403 Building Mechanical Systems or Section 6 of ASHRAE 90.1-2013. Any new mechanical system(s) and equipment that are part of the addition would need to comply as new construction in regards to HVAC equipment, controls and commissioning. However, the proposed addition would not require any existing HVAC system or equipment to be brought into compliance with the new energy codes. An alteration of the existing HVAC system to accommodate a building addition however would be treated as an alteration below.

Alterations and Remodels to Existing Buildings

The IECC generally exempts work in existing Buildings from all the requirements of Section C403 Mechanical Systems and for Commissioning in Section C408. ASHRAE compliance paths are covered by Section 6 and the alteration would meet the entire section. In the IECC,

there are two exceptions where compliance with all sections of energy code for equipment sizing, HVAC controls and system commissioning are required:

- The building was previously unconditioned and now being converted to conditioned space with new HVAC systems.
- The entire HVAC system, equipment and ducts are new, i.e. the entire system is being replaced.

For alterations to part of an HVAC system as part of a remodel project, any new materials or equipment (heating, cooling and ducts) shall comply as new construction (section 102.4 International Mechanical Code). Commissioning may apply for new equipment and new HVAC controls if meeting the thresholds of C408.2, and always applies for ASHRAE 90.1-2013.

By definition, replacement of equipment is an alteration (a replacement or addition to a building or its systems and equipment.) A change-out of equipment is not a repair therefore any direct replacement of old HVAC equipment with new HVAC equipment must comply with new construction.

A common commercial change out is a replacement of a roof-top-unit (RTU). Replacing an RTU will include the requirement for Class 1 motorized dampers or gravity dampers on the new equipment. The only exception to meeting current code when replacing a RTU would be the requirement for an economizer module for the new roof top unit. However if the RTU being replaced had an economizer, the new RTU would require an economizer as part of the replacement.

Repairs

Some projects have no alterations of an HVAC system (extension, addition or change to the arrangement type or purpose of the original installation, or replacement of equipment). The IEBC, IECC and IMC states that any repair work shall not make the existing systems less energy efficient.

For additional information you can visit our website at www.sanantonio.gov/dsd or have any questions, please contact DSD's Mechanical Inspections Supervisor at 210-207-8242.

Summary:

This Information Bulletin is for informational purposes only.

Prepared by: Jesse Vasquez, Mechanical Inspections Supervisor

Reviewed by: Michael Constantino, Development Services Manager

Authorized by: Michael Shannon, PE, CBO, Assistant Director