

Prohibition on Using HVAC Economizers as Make-Up Air Units

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ITS 26-003

Purpose

To clarify the intended function of economizers in commercial heating, ventilation, and air conditioning (HVAC) systems and to reinforce regulatory requirements for proper make-up air provisions.

Background

An economizer is a factory integrated assembly of dampers, actuators, sensors, and controls that optimizes outdoor air use to deliver energy-efficient “free cooling” whenever outdoor conditions are suitable, reducing mechanical cooling. Often considered accessory components, these devices are intended to modulate outdoor air only under specific temperature or enthalpy conditions (temperature and humidity).

Economizers are not standalone appliances and lack pressure-sensing, airflow-verification, and safety controls required for safe and reliable make-up air delivery.

As a result, any damper obstruction, mechanical wear, control failure, or system imbalance can lead to negative building pressure, back drafting of combustion appliances, and non-compliance with code requirements for dedicated safe and reliable make-up air systems.

Regulatory Requirement

The Gas and Oil Burner Act, Section 2(1) prohibits the sale, installation, or use of any gas- or oil-fired device unless its design and construction have been approved as prescribed in regulation.

The supporting Gas and Oil Burner Regulation, defines “approved” as equipment either approved by the minister or listed or labelled by a certification body or inspection body accredited by the Standards Council of Canada, therefore fuel-burning appliances and accessories shall be certified and approved for their intended purpose.

Under CSA B149.1, Clause 4.2.1, all appliances, accessories, components, equipment, and materials used in an installation must be approved and rated for the specific purpose for which they are employed, meaning economizers cannot be used in conjunction with HVAC equipment in lieu of make-up air appliances, as they are not certified for that function.

Conclusion

Economizers, when used in conjunction with HVAC equipment, are intended solely to improve energy efficiency by utilizing suitable outdoor air conditions; they are not designed or certified as make-up air appliances. To maintain safety, performance, and regulatory compliance, make-up air requirements must be met by using properly certified and approved equipment only, in accordance with CSA B149.1.

References

- [The Gas and Oil Burner Act G30](#)
- [Gas and Oil Burner Regulation 104/87 R](#)
- CSA B149.1:2025 Natural gas and propane installation code