



Energy Efficiency Regulations

Commercial Packaged Gas and Oil-fired Boilers

Bulletin on Developing Standards

(Updated) August 2010 (Original May 2010)

This update on developing a standard for commercial packaged gas and oil-fired boilers should be read in conjunction with the original dated May 2010, as this bulletin outlines the changes made to the proposed regulations outlined therein. These changes are being made primarily as a result of stakeholder feedback and discussions during the June 2010 consultation with the commercial boiler industry.

Major changes in MEPS and effective dates included in the table below, essentially include:

- a. changes to MEPS for near-condensing gas hot water boilers;
- b. regulating near-condensing level as a replacement product only in 2015; and
- c. regulating condensing level for the new construction market in 2015.

Minimum Performance Levels and Effective Dates

NRCan proposes the following multi-year tiered approach to standards for commercial packaged boilers:

Boiler Type	Prescriptive Requirements	Minimum Efficiency	Effective Dates
Small Gas Hot Water	No standing pilot	80% E _T - March 2, 2012 84% E _T - March 2, 2015 - replacement market only 90% E _T - March 2, 2015 - new construction	
Small Gas Steam	No standing pilot	77% E _T March 2, 2012 79% E _T March 2, 2015	
Small Oil Hot Water	Nil	82% E _T - March 2, 2012 85% E _T - March 2, 2015	

Small Oil Steam	Nil	81% E _T - March 2, 2012
Large Gas Hot Water	No standing pilot	82% E _C - March 2, 2012 86% E _C - March 2, 2015 - replacement market only 90% E _C - March 2, 2015 - new construction
Large Oil Hot Water	Nil	84% E _C - March 2, 2012 87% E _C - March 2, 2015
Large Gas Steam	No standing pilot	77% E _T - March 2, 2012 79% E _T - March 2, 2015
Large Oil Steam	Nil	81% E _T - March 2, 2012

(a) During consultations many stakeholders recommended that the near condensing level for gas hot water boilers is 84% E_T rather than 85% E_T, due to the potential of condensing in the vent above 84% E_T. As a result NRCan proposes changing the near-condensing level for small gas hot water boilers from 85 to 84% E_T, and for large gas hot water boilers from 87% E_C to 86% E_C.

(b) Stakeholders identified that a condensing boiler installed in an existing distribution system, originally designed for high temperature return water, will not achieve the expected efficiency and therefore not provide the same level of savings due to higher return water temperatures. Although it is NRCan's position that condensing equipment in existing distribution systems will still achieve acceptable savings, particularly with the use of modulating burners and appropriate controls, NRCan is proposing to allow boilers with a thermal efficiency of 84% as a replacement product only in 2015. NRCan will continue to look at the economics of installing condensing equipment in existing buildings, with a view to mandating this requirement in future amendments

© NRCan is proposing to regulate condensing equipment for new construction in 2015. Given the strong market share of condensing boilers, it was felt that this level for new construction could be achieved earlier than 2018, as was in the original bulletin. Comments received from stakeholders support the differentiation between new and replacement end use applications.

In addition to the changes listed above to MEPS and effective dates, NRCan is no longer considering regulating the use of outdoor temperature reset controls. Many stakeholders suggested that the selection of commercial boilers control strategies is typically done at the design stage of the heating system by an engineer.

Labelling Requirements

The proposal to require different MEPS for intended end use applications means that we will need to identify boilers designated as replacement market only. NRCan is seeking comment on how to identify these boilers as replacement products.

Comments Invited

The information in the bulletin is being issued in advance of pre-publication in the *Canada Gazette* to allow time for concerned stakeholders to comment on the proposal. Comments are invited by **August 20, 2010**. If required, further consultations will be done via web/teleconference at a date and time to be sent by separate email correspondence. All correspondence should be sent to:

Rosalyn Cochrane
Senior Standards Engineer
Office of Energy Efficiency
Natural Resources Canada
580 Booth St
Ottawa ON K1A 0E4
Tel: (613) 995-5433
Email: [rosalyn.cochrane@nrcan.gc.ca]
Website: [http://oee.nrcan.gc.ca/regulations/home_page.cfm]