THE CABINET OF MINISTERS OF UKRAINE

RESOLUTION

No.748

of 27 August 2008

Kyiv

On approval of the Technical regulations on hot-water boilers fired with liquid or gaseous fuels

In accordance with Article 14 of Law of Ukraine "On standards, technical regulations and conformity assessment procedures", the Cabinet of Ministers of Ukraine resolves to:

1. Approve the Technical regulations for hot-water boilers fired with liquid or gaseous fuels (attached).

2. Designate the Ministry of Industrial Policy as agency responsible for implementation of the Technical regulations, approved by this resolution, and for administering control over compliance with their requirements.

3. This resolution shall take effect six months after its publication.

Prime Minister of Ukraine

Y.TIMOSHENKO

Ind. 21

APPROVED
by Resolution of the Cabinet of Ministers of Ukraine
of 27 August 2008, # 748
TECHNICAL REGULATIONS
on hot-water boilers fired with liquid or gaseous fuels

General issues

1. These Technical regulations set forth requirements to hot-water boilers fired with liquid or gaseous fuels and having nominal output capacity from 4 to 400 KWatts.

2. In these Technical regulations the terms used shall have the following meaning:

- hot-water boiler (hereinafter – the boiler) – the device that consists of the body with convection heating surfaces and the firing unit, which is designed to heat water using energy released in the course of fuel combustion;

- the efficiency factor (hereinafter - the coefficient) – the ratio of the amount of heat transferred to the water in the boiler, to the amount of heat released in the course of fuel combustion on condition of the same quantity of fuel consumed in the same period of time;

- condensation gas boiler –boiler intended for continuous condensation of large volumes of water steam contained in the gaseous products of combustion;

- boiler for residential housing –boiler with nominal heat generating capacity of up to 37 KWatts, intended for heating residential housing by means of radiation of heat from the casing with the open neck of the combustion chamber, supplying hot water by means of self-flow circulation and having on its casing a label indicating that it is designed for heating residential housing;

- low-temperature boiler - boiler capable of non-stop operation, supplying water with temperature from 35 to 40°C, including condensation boilers operating on liquid fuels;

- nominal heat generating capacity (Pn), measured in KWatts, - maximal amount of heat, established and guaranteed by the producer as such that is continuously released during operation of the boiler with the efficiency coefficient specified by the producer;

- regular boiler – boiler fired with liquid or gaseous fuels (except for low-temperature and condensation gas boilers), with the efficiency coefficient having the permissible value specified in Annex 1;

- built-in boiler - boiler set up in a stone niche equipped with the device for burning gas and intended for supplying heat to the central heating system;

- partial work load – ratio of actual heat generating capacity of the boiler operating with shut-down periods or at heating capacity below the nominal, to its nominal capacity.

Other terms are used as defined in Laws of Ukraine "On standards, technical regulations and conformity assessment procedures", "On standardization", "On verification of conformity" and "On accreditation of conformity assessment authorities".

3. These Technical regulations shall not apply to:

- boilers designed for operation on the fuels (used industrial gas, biogas, etc.) which by their properties differ from liquid and gaseous fuels;
boiling devices and devices designed for heating of rooms/housing and having an additional function for supplying hot water for central heating and hot drinking water;

devices with nominal heat generating capacity less than 6 KWatts with self-flow circulation, designed to ensure reserves of hot drinking water;

individual design boilers;

co-generation units designed to simultaneously generate heat and electric energy.

**Permissible values of the coefficient**

4. Permissible values of the coefficient for operation of the boiler with nominal heat generating capacity and average temperature of water in the boiler of 70° C and during the operation of the boiler at the 30-percent work load for average temperatures depending on the type of the boiler are shown in Annex 1.

5. Putting into operation the built-in boilers and/or boilers for residential housing is allowed provided that the value of coefficients at the nominal heat generating capacity and at the 30-percent work load is not less than 4 percent of the coefficients set for standard/regular boilers.

6. At the time of operation of boilers designed for heating of housing/rooms and for supplying hot drinking water, the permissible value of the coefficient concern only those functions of the boiler which are related to heating.

**Conformity assessment procedures**

7. Producer, or his authorized representative, shall carry out assessment of conformity of boilers to requirements concerning their efficiency coefficients by applying procedures (modules for assessment of conformity) established by the Technical regulations on modules for assessment of conformity and requirements concerning application of the national mark of conformity, which are used in the technical regulations approved by Resolution of the Cabinet of Ministers of Ukraine of 7 October 2003, # 1585 (Official gazette of Ukraine, 2003, # 41, p. 2175; 2007, # 1, p. 31).

8. To carry out an assessment of conformity of the coefficient of serially manufactured boilers fired with gaseous fuels, at the choice of the producer there will be used module B (type examination) in combination with module C (type conformity), module D (assurance of production process quality), module E (assurance of product quality), or module F (product examination).

9. A procedure of assessment of conformity of the coefficient of boilers produced individually or in small quantities and fired with gaseous fuels shall be carried out by applying module G (individual product unit examination).

10. To carry out an assessment of conformity of the coefficient of boilers of serial production fired with liquid fuels, at the choice of the producer there will be used module B (type examination) in combination with module C (type conformity) or module D (assurance of production process quality), or module E (assurance of product quality).

11. After conducting procedures of assessment of conformity, the producer or his authorized representative shall prepare a declaration of conformity using the form presented in Annex 2 and
affix to each product the national mark of conformity in accordance with requirements of these Technical regulations.

Producer, or his authorized representative, is required to keep copies of the certificate of conformity and copies of the declaration of conformity together with the technical documentation during ten years after the manufacturing of the last product unit, and to produce it for examination in cases specified by legislation.

In case of absence of the producer or his authorized representative, the responsibility for keeping copies of the certificate of conformity, declaration of conformity and technical documentation shall be assigned to the person who put the products into circulation in the domestic market.

**Labeling of boilers**

12. Depending on the results of the application of conformity assessment procedures, producers may apply a system of markings denoting energy efficiency of boilers. Such a system shall be introduced for boilers the efficiency coefficient of which is higher than that of standard boilers and is specified in section 4 of these Technical regulations.

One asterisk sign ("*") shall be affixed to boilers the efficiency coefficients of which under nominal heat generating capacity and partial work load are not less than the efficiency coefficient for standard boilers.

Two asterisks ("**") will be affixed to the boiler the efficiency coefficient of which under nominal heat generating capacity and partial work load is greater by three points (but not more than by six points) than the efficiency coefficient for a standard boiler (with each further increase by three points one more asterisk "**" will be added as provided in Annex 3).

Affixing any other marks that can be confused with those specified in this section is not allowed.

13. A boiler, conformity of which has been verified under the established applicable procedure, shall bear the national mark of conformity affixed to it by the producer or by his authorized representative.

14. The description of the national mark of conformity and rules for its application are approved by Resolution of the Cabinet of Ministers of Ukraine of 29 November 2001 # 1599 (Official gazette of Ukraine, 2001, # 49, p. 2188).

15. It is prohibited to affix to the boilers other marks in form similar to the national mark of conformity.

16. If it has been established that the national mark of conformity is applied in violation of requirements of the legislation, the producer or his authorized representative or a person responsible for putting the product into circulation, shall be required to take measures to stop the violation on conditions specified by the central executive authorities in accordance with legislation, ensure conformity of the products with requirements specified in these Technical regulations and to verify this conformity in accordance with the established procedure.

17. The boiler technical data plate is to bear the national mark of conformity and to contain the following data:

name of the producer or his identification number;
firm name and conventional coding/denomination of the boiler;

type and nominal gas pressure;

nominal heat generating capacity or heating capacity of the boiler;

serial number of the boiler and date (month and year) of production.

On boilers equipped with electric devices, in addition to the specified information, there shall be specified:

Nominal voltage;

Type of electric current (direct or alternating);

The symbol denoting the degree of protection from electric current impact.

Depending on the intended use and design of the boiler other information, required for its assembly, may be also provided.

18. The national mark of conformity shall be placed next to the identification number of the designated conformity assessment authority, which performed the procedure of assessment of conformity, specifying the last two digits of the year in which the mark was affixed.
PERMISSIBLE LEVELS
of the efficiency coefficient for hot-water boilers fired with liquid or gaseous fuels

<table>
<thead>
<tr>
<th>Boiler type</th>
<th>Output capacity (KWatts)</th>
<th>Efficiency coefficient under nominal heat generating capacity</th>
<th>Efficiency coefficient in case of a boiler under 30-percent work load</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Average temperature of water in the boiler, °C</td>
<td>the coefficient, percent</td>
</tr>
<tr>
<td>Standard boilers</td>
<td>4 - 400</td>
<td>70</td>
<td>≥ 84 + 2 Log Pn</td>
</tr>
<tr>
<td>Low-temperature boilers</td>
<td>4 - 400</td>
<td>70</td>
<td>≥ 87,5 + 1,5 Log Pn</td>
</tr>
<tr>
<td>Condensation gas boilers</td>
<td>4 - 400</td>
<td>70</td>
<td>≥ 91 + 1 Log Pn</td>
</tr>
</tbody>
</table>

* Temperature of water exiting the boiler
DECLARATION of conformity

(full name of the producer or his authorized representative (supplier)
represented by

(job title, surname, first and second name of the producer or his authorized representative (supplier)
hereby verifies that the efficiency factor of the boiler

(complete name of the boiler, type, mark, model)
which is manufactured on the basis of

(name and denomination of technical documentation)
conforms to the Technical regulations on hot-water boilers fired with liquid or gaseous fuels, in accordance with

(name of regulatory documents (if available)

Technical documentation for the boiler meeting the requirements of the Technical regulations is available.

The protocol of the boiler tests performed under supervision of the designated conformity assessment authority
(if required) ___________________________________________ (number of the protocol, date execution of the protocol,

name of the designated conformity assessment authority)

The declaration is prepared under full responsibility of the producer / person authorized by the producer/supplier.

__________________________________________  ____________________________________________  ____________________________________________
(job title)  (signature)  (initials and surname)
Place of seal  (date)
THE SYSTEM
of markings denoting energy effectiveness of boilers

<table>
<thead>
<tr>
<th>Markings</th>
<th>Requirements to the efficiency coefficient under nominal heat generating capacity and under partial work load of 0.3 Pn and in case of the average temperature of water in the boiler being 70° C (percent)</th>
<th>Requirements to the efficiency coefficient under nominal heat generating capacity and under partial work load of 0.3 Pn and in case of the average temperature of water in the boiler being ≥ 50° C (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>≥ 84 + 2 Log Pn</td>
<td>≥ 80 + 3 Log Pn</td>
</tr>
<tr>
<td>**</td>
<td>≥ 87 + 2 Log Pn</td>
<td>≥ 83 + 3 Log Pn</td>
</tr>
<tr>
<td>***</td>
<td>≥ 90 + 2 Log Pn</td>
<td>≥ 86 + 3 Log Pn</td>
</tr>
<tr>
<td>****</td>
<td>≥ 93 + 2 Log Pn</td>
<td>≥ 89 + 3 Log Pn</td>
</tr>
</tbody>
</table>