

## **Rules for authors of a scientific and technical journal "Engineering and Construction Bulletin of the Caspian Region"**

### ***General information***

The main goal of the journal is the promotion of scientific research, the publication of original scientific articles and reviews, mainly of a scientific and technical nature, devoted to fundamental and applied problems in the field of construction, architecture, energy-resource-saving, and ecology.

The volume of each of the main sections of the journal does not exceed five articles. In one issue of the journal can not be published more than two articles by one author, including work in collaboration.

### ***Reviewing and checking the degree of originality***

The order of publication of articles in the journal implies mandatory review. Articles are reviewed by members of the editorial board of the journal or, if necessary, by invited experts. The reviewer is a person who has a degree in a specialty corresponding to the subject of the article.

All journal articles before being accepted for publication are subject to mandatory verification of the uniqueness of the text. The check is carried out by the technical secretary of the journal using one of the online systems.

For journal articles, the allowed percentage of uniqueness is set at 75%. In the case of a smaller indicator, the author is notified of the need to modify the article to an acceptable level of originality, or to withdraw the article from the journal.

### ***Submission Rules***

To publish an article in a journal, authors should provide:

- application for publication in the journal;
- the text of a scientific article in electronic form, designed in accordance with the requirements;
- for graduate students - certificate of postgraduate education.

All the above materials should be sent to the email address [isvp@aucu.ru](mailto:isvp@aucu.ru).

## *Application form for publication*

Full name of author (s)	
Article title	
The name of the proposed section of the magazine	
Information about the author (academic degree, title, position)	
Place of work (indicating the structural unit), address of the organization	
The address for mailing the journal	
Contact information (E-mail, phone)	

### *Requirements for the design of the article*

The article is provided electronically as a Microsoft Word file.

Before sending an article, the text should be carefully checked, checked for compatibility with the addition of other texts to the article, checked for resistance to processing in PDF (especially for signs, formulas, pictures and tables). Making additions and corrections to the sent text is not allowed.

The scientific article should have a limited amount (10–20 pages of text typed in Microsoft Word; page format - A4, portrait orientation, margins - 2.5 cm on all sides, font - Times New Roman, black, 14 pt ; single line spacing; paragraph indent to the left - 1.25).

Mandatory structural elements of a scientific article:

- UDC index (in the upper left corner of the sheet);
- Title (capital letters, font size - 14, bold, left);
- Full name of authors (font size - 14, italic bold, you-equalization on the left);
- the organization in which the authors work, indicating the city and country (font size - 14, italics, left justification);
- abstract in Russian (800–1000 characters (with spaces); font size - 12);
- keywords in Russian (5–10 words; font size - 12; italics);
- translation of the title, Name, Last Name, and information about the author, abstract and keywords in English;
- the actual text of the article, which includes an introductory part, in which the author provides a justification of the relevance of the chosen topic; the main part and conclusion containing the main conclusions on the issue studied by the author (text alignment in width; font size - 14);
- list of references, prepared in accordance with GOST 7.0.5–2008 “Bibliography link. General requirements and rules of composition ”(font size - 12).

## Example of an article

UDC 628.812.34: 620.9

### **РАЗРАБОТКА ЭНЕРГОСБЕРЕГАЮЩИХ МЕРОПРИЯТИЙ ПРИ ПРОЕКТИРОВАНИИ И РЕКОНСТРУКЦИИ СЕЛЬСКИХ И ПОСЕЛКОВЫХ СИСТЕМ ТЕПЛОСНАБЖЕНИЯ**

*А. Е. Александров, Г. Н. Бараева, С. А. Минкина*

*Самарский государственный архитектурно-строительный университет*

Обоснована возможность существенного повышения эффективности поселковых и сельских систем теплоснабжения за счет энергосберегающих мероприятий. Приведены результаты комплексного обследования 22 котельных МУП «Волжсксельхозэнерго» Самарской области, обеспечивающих теплоснабжение 15 населенных пунктов, и состояния тепловых сетей. Приведены данные по состоянию котлов и вспомогательного оборудования котельных. Установлено, что в большинстве котельных отсутствуют системы химводоочистки, и приборы учета потребления воды, в ряде котельных эксплуатируются старые секционные котлы, что приводит к перерасходу топлива. Выполнены расчеты химводоочистки, подбор оборудования, аэродинамический расчет котельных агрегатов. Представлен перечень мероприятий по улучшению состояния котельных и тепловых сетей.

*Ключевые слова:* энергосбережение, объекты теплоснабжения, котельная, тепловая сеть, химводоочистка.

### **DEVELOPMENT OF POWER SAVING MEASURES IN DESIGN AND RECONSTRUCTION OF RURAL AND SETTLE- MENT HEAT SUPPLY SYSTEMS**

*A. E. Alexandrov, G.N. Baraeva, S.A. Minkina*

*Samara State University of Architecture and Civil Engineering*

The possibility of a significant increase in the efficiency of village and rural heat supply systems due to energy saving measures is substantiated. The results of a comprehensive survey of 22 boiler-rooms of "Volzhskselhozenergo" firm in Samara region, providing heat for 15 settlements, and the state of thermal networks are shown. The data on the state of boiler-rooms and auxiliary equipment are considered. It was founded that in the majority of boiler-rooms no system threads of water purifier, water meters and water consumption. A number of boiler-rooms operated with old sectional boilers, which results in excessive fuel consumption. Calculations of water treatment, equipment selection, and aerodynamic calculation of boilers are performed. A list of measures to improve the state of boilers and heating systems is worked out.

*Key words:* energy saving, heat supply facilities, boiler-room, heating network, chemical water treatment.

The text of the article.

#### **Bibliography**

1. Zhurba M. G. Water supply. Designing systems and facilities. Vologda - Moscow: VSTU, 2001. T. 2. 324 p.
2. Shvetsov V.N., Yakovlev S.V., Morozova KM. Deep purification of natural and waste waters on biosorbents // Water supply and sanitary engineering. 1995. No. 11. P. 25–27.

3. Reverse osmosis system, capacity 0.5 m<sup>3</sup> / h / Ro-sAqua Center LLC. URL: <http://ros-saqua.ru/katalog/vodopodgotovka/membrannyye-ustanovki-ochistki-vody/proizvoditelnost-05-m3ch.html>

The *title of the article* does not allow abbreviations, with the exception of generally accepted.

*Annotations* should be concise, but at the same time quite informative. They should disclose the main content of the article, have an indication of the subject, object, purpose of the study, as well as the relevance of the chosen topic. It is unacceptable to repeat the title or excerpts from the text of the article literally in the notation. An annotation in English may not be an exact tracing of the Russian text and should not be less than an annotation in Russian. The use of automatic translators is prohibited.

*References* to the sources used in the article should be enclosed in square brackets and sequentially numbered (for example, [1], [5, p. 24], [11–14, 18]). The number indicates the source in the list of references. Hyperlinks are not allowed.

*References* should be listed as a numbered list, put up in the manner of sources mentioned in the text. It is recommended to use at least 15 literary sources.

A set of mathematical *formulas* within the entire text should be uniform. Simple inline and single-line formulas should be typed without the use of special editors. Special complex characters, as well as multi-line formulas that cannot be typed in the usual way, should be typed in the Math Type formula editor. Formulas typed in separate lines and equations are located in the center, printed from a new line without indentation and are numbered in parentheses at the end of the line. The formulas themselves can be 12-14 points.

*Tables* and *figures* should be titled and numbered consecutively. The word "table" is typed above the table itself, aligned to the right. On the next line in the center of the title is typed. If the table is large, it can be placed on a separate page, and if it has a considerable width, on a page with landscape orientation.

Figures should be submitted in \* .jpg or \* .bmp format. The caption must consist of a number and a name (Fig. 1. ...) and be centered. The names of the figures and tables, as well as the contents of the tables are typed in 12 pt. The borders of the tables and figures should correspond to the parameters of the text fields (16 cm). The text of the article must contain links to the submitted figures, tables, graphs or diagrams. Color illustrations are not accepted, they must be converted to black and white. All illustrations should be clear. Figures and tables that will make it difficult to create a single file in Microsoft Word format are not allowed.

If there is funding under the grant, the corresponding information is placed after the main text of the article after an interval and is given in italics.

## **Annual schedule of work on the magazine**

<i>Issue number in the current year</i>	<i>Deadline for submission by authors</i>	<i>Review</i>	<i>Approval at the meeting of the editorial board</i>	<i>Prepress preparation</i>	<i>issue of the journal</i>
№ 1	until 01.02	until 10.02	until 20.02	until 15.03	until 30.03
№ 2	until 01.05	until 10.05	until 20.05	until 15.06	until 30.06
№ 3	until 01.08	until 10.08	until 20.08	until 15.09	until 30.09
№ 4	until 01.11	until 10.11	until 20.11	until 15.12	until 30.12