

Contents

№ 1 (115)-2025

Articles

- Faleev M. I., Sidorovich T. I., Tsybikov N. A., Zverkov V. A., Kaganov V. M.** Fundamental Difficulties in Improving Safe Operation of Nuclear and Radiation-hazardous Facilities in Conditions of Intensive Socio-economic Development of Northern Macroregions 5
- Kuryndin A. V., Ponizov A. V., Shapovalov A. S., Timofeev N. B., Ekin A. A., Antonov K. L.** Preliminary Assessment of the Need for Regulation of Industrial Reservoirs as a Source of Radiation Exposure to Humans 31
- Safronova N. N.** Scientific and Methodological Approaches to Decommissioning of Nuclear Power Plant Units on an Industrial Basis 41
- Sokolov I. P., Smirnov A. V., Belova E. V.** On the Influence of Heating Rate and Reaction Vessel Diameter on the Onset Temperature of the Thermal Explosion of Monoethanolamine in Nitric Acid Solutions 52

Legal Documents

- Safety Rules for Decommissioning of NPP Power Unit. **NP-012-16** 62
- Recommendations for Justification of Selection and Use of Barrier Clay Materials for Radioactive Waste Storage Facilities. **RB-042-24** 78

International Information

- Krupchatnikov B. N., Gareev M. D.** The U. S. Nuclear Regulatory Commission has Updated its Enforcement Policy 96
- List of international organizations' documents approved in 2024–2025 108

Federal Environmental, Industrial
and Nuclear Supervision Service

NUCLEAR AND RADIATION SAFETY JOURNAL

Research & Practice Quarterly Journal

Official Journal

Published since 1998

№ 1 (115)-2025

EDITORIAL BOARD

A. V. Ferapontov, Ph. D. in Engineering Sciences, Rostechnadzor, Moscow
D. Y. Belkin, Ph. D. in Engineering Sciences, Rostechnadzor, Moscow
D. A. Bokov, Rostechnadzor, Moscow
E. G. Kudryavtsev, Ph. D. in Chemical Sciences, Moscow
B. A. Krasnykh, Ph. D. in Engineering Sciences, Rostechnadzor, Moscow
V. A. Manakov, Rostechnadzor, Moscow
M. I. Miroshnichenko, SEC NRS, Moscow

EDITORIAL TEAM

Editor-in-Chief

A. A. Khamaza, Ph. D. in Engineering Sciences, SEC NRS, Moscow

Deputy Editor-in-Chief

R. B. Sharafutdinov, Ph. D. in Engineering Sciences, SEC NRS, Moscow

Members of the Editorial Team

E. G. Bugaev, Doctor of Engineering, SEC NRS, Moscow

S. E. Vinokurov, Doctor of Chemistry, V. I. Vernadsky Institute of Geochemistry and Analytical Chemistry of the Russian Academy of Sciences, Moscow

E. A. Ivanov, Ph. D. in Engineering Sciences, SEC NRS, Moscow

A. V. Kryanov, Doctor in Physical & Mathematical Sciences, Professor, Institute of Laser and Plasma Technologies of the National Research Nuclear University MEPhI, Moscow

A. V. Kuzmin, Ph. D. in Physical & Mathematical Sciences, State Scientific Institution "JIPNR – Sosny", Belarus National Academy of Sciences, Minsk, Republic of Belarus

I. I. Linge, Doctor of Engineering, Nuclear Safety Institute of the Russian Academy of Sciences, Moscow

Y. M. Semchenkov, RRC "Kurchatov Institute", Moscow

T. V. Sinitsyna, SEC NRS, Moscow – **Executive Secretary**

I. P. Sokolov, Doctor of Chemistry, Professor, SEC NRS, Moscow

S. L. Soloviev, Doctor of Engineering, VNIIAES JSC, Moscow

G. V. Tikhomirov, Doctor in Physical & Mathematical Sciences, Professor, Institute of Nuclear Physics and Engineering of the National Research Nuclear University MEPhI, Moscow

A. P. Khomyakov, Doctor of Engineering, Ural Federal University named after the first President of Russia B. N. Yeltsin, Ekaterinburg

U. Stoll, Technical Chief Advisor for Nuclear Facilities, Framatome GmbH, Erlangen, Federal Republic of Germany

Founder

Scientific and Engineering Centre
for Nuclear and Radiation Safety
(SEC NRS)

Publishing Editor

N. R. Bolshakova,
SEC NRS, Moscow

Editors

T. A. Krasotina, D. R. Lukyanova,
SEC NRS, Moscow

Desktop Publishing

A. N. Lukyanov,
SEC NRS, Moscow

ISSN 2218-8665 (print)

ISSN 2218-869X (online)

nrs-journal.ru

© "Nuclear and Radiation Safety Journal"

SEC NRS, 2025

No materials published in
"Nuclear and Radiation Safety Journal"
may be reproduced without prior
permission of the publisher