

## Description of the life and scientific work of Dr. T. Nedveckaitė (Biography).



Tatjana Nedveckaitė graduated from J. Tallat-Kelpša Music School (1954) and Vilnius University (1958). She worked at the aforementioned music school (1956-1958) and at Vilnius University as an accompanist for the university's Academic Choir (1954-1964).

She worked at the Institute of Physics (after the reorganization – Center for Physical Sciences and Technology (FTMC)) as a research fellow and senior researcher associate from 1958 to 2013. Her main areas of research were studies on the dispersion of radionuclides in the natural environment and mathematical modeling of radiation protection for humans and non-human biota in Lithuania. To thoroughly study the effects of radiation on non-human biota resulting from potential irradiation of the Ignalina Nuclear Power Plant and its impact on terrestrial and aquatic environments, T. Nedveckaitė worked at the Nature Research Centre from 2014 to 2020 as a non-tenured research worker.

In addition to her intensive scientific work, she also held important public positions. From 2004 to 2008, she served as the Chair of the Lithuanian Society for Radiation Protection, and since September 1995, she has been a Fellow of the New York Academy of Sciences.

Of great scientific and practical value are her studies of contamination of Lithuanian territory by radioactive iodine isotopes, primarily I-131, conducted by her and her colleagues at the Institute of Physics after the

Chernobyl accident as an assistant to the Civil Protection Department of the Ministry of National Defence. The assessment of human exposure to ionizing radiation from a radiation protection perspective is summarized in the following publication:

Wahlstrom B., Nedveckaitė T., Skaržinskienė V. (2001). Is the radiation dangerous? (In Lithuanian). National Defence Ministry 132 p. Book circulation 5000 copies. ISBN 9986-738-28-8.

T. Nedveckaitė actively participated in the International Atomic Energy Agency (IAEA) BIOMASS and EMRAS scientific projects and supported the Lithuanian Science and Studies Foundation in assessing the exposure of non-human biota to ionizing radiation. The results are presented in the **IAEA-TECDOC** publication:

**IAEA-TECDOC-1678.** Environmental Modelling for Radiation Safety (EMRAS) – A Summary Report of the Results of the EMRAS Programme INTERNATIONAL ATOMIC ENERGY AGENCY, VIENNA. ISBN 978-92-0-129810-2.

She is also the author and co-author of publications on radiation safety in the event of an accident at a nuclear power plant, which are also used as a textbook.

Nedveckaitė T. Radiation protection in Lithuania. What should you know in the event of the accident at a nuclear power plant? 1995 – first publishing, 1998 – second publishing. Vilnius. Science and Encyclopaedia Publishing House. 79 p., book circulation 1000 copies. ISBN 5-420-01361-4.

Nedveckaitė T. (2004). Radiation Protection in Lithuania (in Lithuanian). 259 p., book circulation 650 copies, ISBN 9955-526-16-5. The book cited in United Nations Report to the General Assembly 2008.

Nedveckaitė T., Marčiulionienė D., Mažeika J., Paškauskas R. (2011). Radiological and environmental effects in Ignalina Nuclear Power Plant cooling pond – Lake Druksiai: from plant put in operation to shut down period of time. Nuclear Power - Operation, Safety and Environment. Nuclear Power/book 3, Publisher In Tech., ed. P. Tsvetkov, p. 261–286. book circulation 3000 copies. ISBN 978-953-307-507-5.

The results of a scientific studies based on the publication of 135 articles in Lithuanian and English are available online at two addresses: **IAEA T. Nedveckaite** and **T. Nedveckaite ResearchGate**. According to the ResearchGate information system, as of March 2024, the English-language publications had been cited 661 times and read 38635 times.

Three Doctors of Science who successfully defended their doctoral dissertations under the supervision of Dr. T. Nedveckaitė continue their successful work in the field of radiation protection of humans and non-human biota at Vilnius University, the Center for Physical Sciences and Technology, the Lithuanian Radiation Protection Centre, and elsewhere.