РАЗДЕЛ VIII. ПОЛИТОЛОГИЯ

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CTBT: indispensability of ratification as a key stage of nuclear non-proliferation*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)
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XX century ushered mankind in a new era of flourishing nuclear technologies. Nuclear energy was developed at the same time with technologies for military purposes and with the creation of weapon of mass destruction and other nuclear explosive devices, creating by that not only large-scale source of energy supply, but also a jeopardy for peaceful existence. Due to this problem, non-proliferation regime introduction and strengthening the control of development and use of nuclear technologies became essential. This exactly was the main target of negotiations in the UN General Assembly, which ended by establishment of the IAEA – the International Atomic Energy Agency [1]. It became a pivotal international platform for deliberation upon and making progress in terms of arms control and disarmament. Due to the initiative of this organization the Nuclear Non-Proliferation Treaty was opened for signature in 1968, and March 5, 1970 was the day it entered into force. His unique value is represented in Article 9, paragraph 3 in the definition of nuclear – weapon state: “For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967” [2]. This status was granted to: the USA, the Great Britain, the USSR, France and China. In accordance with the provisions of the treaty, such member state undertakes the commitment not to “transfer to any recipient whatsoever nuclear weapons” and “not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons”. By this means, major part of the world refused to develop military nuclear industry signing this treaty.

But as crucial as non-proliferation issue was the threat and damage from already manufactured nuclear weapons, in particular - text explosions. They were accessible for non-parties to the NPT and for the nuclear-weapon states. In five decades since the first use of nuclear weapons were exploded more than 2000 nuclear test bombs [3]. This course of events triggered critical emissions of radioactive particles in the atmosphere, which caused not only deterioration of ecological situation in particular regions, located near the testing sites, but also sparked indignation and numerous protests all over the world. By the aid of calls from many states the General Assembly established the United Nations Scientific Committee on the Atomic Radiation, the Committee on Disarmament (renamed to the Conference on Disarmament in 1984) [4]. Also in 1963 was signed the Partial Test Ban Treaty (PTBT), prohibiting nuclear weapon tests in the atmosphere, in outer space and under water, which outlawed all test detonations of nuclear weapons except for those conducted underground. It was one of the first concrete steps towards complete prohibition, but in fact didnot insert great influence on policy of disarmament. After that were concluded bilateral agreements between the USSR and the USA. Among them - the Treaty on the Limitation of Underground Nuclear Weapon Tests, also known as the Threshold Test Ban Treaty (TTBT) that established a nuclear "threshold," by prohibiting tests of nuclear devices having a yield exceeding 150 kilotons (equivalent to 150,000 tons of TNT); Peaceful Nuclear Explosions Treaty (PNET), obligated the parties: not to carry out any individual nuclear explosions having a yield exceeding 150 kilotons; not to carry out any group explosion (consisting of a number of individual explosions) having an aggregate yield exceeding 1,500 kilotons; and not to carry out any group explosion having an aggregate yield exceeding 150 kilotons unless the individual explosions in the group could be identified and measured by

agreed verification procedures. Both agreements entered into force in 1990. Despite this, by the USSR was repeatedly introduced unilateral moratorium on nuclear tests, in order to persuade other countries to follow its example, but these attempts were not successful.

Nevertheless, in the middle of the 90's Russia, the USA and the Great Britain established a complete moratorium on test explosions and in 1994 started ongoing negotiations on comprehensive ban of nuclear tests. They were held in Geneva in under the aegis of the Conference on Disarmament, and all 5 nuclear-weapon states participated in creation of draft treaty. Comprehensive Nuclear-Test-Ban Treaty (CTBT) was opened for signature on November 19, 1996. Until it enters into force, CTBTO Preparatory commission will "carry out necessary preparations for the effective implementation" [5]. At this very moment 183 countries have already signed the Treaty, 166 of them have ratified it, including 3 nuclear-weapon states – The Russian Federation, France and the Great Britain. However, it has to be ratified by 44 countries, mentioned in Annex 2 to the Treaty, as the main requirements for entry into force. We can consider an insurmountable obstacle the fact that 5 of them have signed, but haven't ratified the treaty – the USA, China, Israel, Egypt, and Iran. DPRK, Pakistan and India haven't even signed this agreement. The Conference on facilitating the entry into force of CTBT should be held twice a year and the main purpose of foreign ministers meeting there is to accelerate the entry into force process.

The mission of CTBT is concluded in preventive measures, which will disable countries to manufacture nuclear weapon, if they did not manage it before the entry of treaty into force, and for nuclear-weapon states – crack down the possibility to create even more devastating WMD. And although many countries have already introduced moratorium on nuclear tests, a number of countries can jeopardize international security and disarmament policy. Representatives of CTBTO Preparatory Commission aspire to the world with the absence of possibility of events like Hiroshima and Nagasaki. Not only system of prohibitions and limitations has been created, but also the International Monitoring System (IMS), which exercises control over the earth on the subject of nuclear explosions. IMS may be useful as an instrument of surveillance, but also as an instrument of communication to population and special agencies in case emergency (like approaching tsunami and seismic activity in general) [6]. Most of facilities and stations have been already certified and they are in operation. The Russian Federation houses 32 objects in the IMS (6 primary seismic stations and 13 auxiliary ones, 8 radionuclide stations, 1 radionuclide laboratory and 4 infrasound monitoring facilities). Under the auspices of CTBT also operates the International Data Centre, located in Vienna as well as on-site inspections are held. Therefore, CTBT tends to provide high level of mankind livelihood security.

States should realize that CTBT ratification is not the final step on the long route to disarmament, but it is inevitable if we aim to create absolutely new society, unaffected by the jeopardy of extermination by WMD. After it enters into force, it will be possible to deliberate on gradual steps to reduction of nuclear weapons stockpile, with relevant and prospective projects having been repeatedly discussed.

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