

The IAEA and its Need for Transformation after Fukushima

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The Atomic Age

Shortly after the discovery of nuclear fission, the so-called Manhattan Project was initiated in the USA in 1942 with the goal of developing nuclear bombs before Germany was able to do so. Both possible paths to the atom bomb were started simultaneously:

In Oak Ridge, Tennessee, a huge plant for uranium enrichment was constructed to produce material for uranium bombs and in Hanford, Washington, reactors for plutonium production were put into operation.

The first bomb test took place on July 16, 1945.

On August 6, 1945, a uranium bomb was dropped over Hiroshima and 3 days later a plutonium bomb over Nagasaki. The terrible consequences of these weapons of mass destruction horrified the world and initiated a nuclear arms race.

Atoms for Peace

In 1953, US President Eisenhower delivered a speech before the UN General Assembly in which he announced the so-called “peaceful use“ of atomic energy: “...*this greatest of destructive forces can be developed into a great boon for the benefit of all mankind.*“

There were several reasons behind the “Atoms for Peace“ program. After the traumatic experience of the disastrous consequences of the atomic bombs the USA was interested to show the world that atomic energy could also be good for something. On the other hand there was substantial interest to use the immense investment in the military nuclear industry for commercial purposes and create jobs for the thousands of nuclear specialists. The motivation of nuclear scientists and engineers to get involved in civil nuclear programs was phrased to the point: “If researchers who reject any kind of atomic armament nevertheless welcome the introduction and proliferation of the peaceful exploitation of nuclear power, then they are not only driven by the professional concern of threatening their research by abdicating this development, but also by the illusion of being able to ban the ‘curse’ of nuclear weapons through the ‘blessing’ of nuclear industry. Zeal for research, belief in progress and need for self-justification are united here in the urge to legitimize the unleashing of atomic energy through its civilian use, after its military use – nuclear armament – gets more and more visibly out of control.“ (Friedrich Wagner “Die Wissenschaft und die gefährdete Welt – Eine Wissenschaftssoziologie der Atomphysik“ Beck, München 1964, p.283)

The “Atoms for Peace“ Conference

The UN “Atoms for Peace“ conference, which took place in Geneva 1955, was a one-sided propaganda event for the civil exploitation of atomic energy. To avoid any resistance from the very beginning, Nobel Laureate H. J. Muller was not allowed to deliver his speech on “How radiation changes the genetic constitution“. On the contrary, pro-nuclear euphoria was created. “Experts“ slobbered over cars powered by uranium pills, electricity would become “too cheap to meter“, Walt Disney’s film: “Our Friend the Atom“, which onesidedly praised the benefits of atomic energy, was shown at schools for many years to come.

The wishful expectation that in the near future the last A-bomb would be “burned“ in a peaceful nuclear power plant soon turned out to be an illusion. One reason that it went contrariwise was the “Ploughshare“ program which planned to use A-bombs for “peaceful“ purposes. Under this smokescreen military programs were started (e.g., by India).

Foundation of the IAEA

In December 1954, the UN General Assembly voted for the “Atoms for Peace“ resolution and in 1957 the IAEA was established. According to its statute, the task of the IAEA is: : “...to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall ensure, so far as it is able, that assistance provided by it ... is not used in such a way as to further any military purpose.“

But already at that time it was clear that the civil and the military nuclear industries are connected inseparably: The Acheson-Lilienthal Report (1946) stated clearly that a separation is impossible. Civil nuclear programs easily could be transformed to produce nuclear weapons.

Prominent experts, e.g., the scientific director of the Manhattan Project, Robert Oppenheimer, clearly took the same position. Promotion of nuclear power programs therefore is in contradiction to reliable control of fissile material in order to prohibit proliferation of nuclear weapons.

As mentioned above, the task of the IAEA is the promotion of the so-called peaceful uses of nuclear energy on the one hand, and the safeguarding of fissile material in order to prevent the proliferation of nuclear weapons on the other. In 1957, when the IAEA was established, most of its member states envisaged getting benefits from the “peaceful use of nuclear power“. Since then the prospects of the so-called “peaceful atom“ have changed fundamentally.

The IAEA has failed to fulfil its main purpose of consistent control. The civil application of nuclear power has never kept the original promises of a clean, safe and cheap energy source: “too cheap to meter“.

Contrary to the promotional assertions, nuclear power can be no realistic means to reduce carbon dioxide emissions. Also, the nuclear industry continuously aggravates the problems connected with nuclear waste, although no satisfactory solutions are in sight. Despite the fact that the possibility of accidents of potentially catastrophic dimensions has turned out to be real, there is no adequate liability regime.

The performance of the IAEA after Chernobyl and Fukushima has to be criticised in several respects.

Therefore it is essential to review the outmoded statutes and performance of the IAEA and to begin a reform process with the aim of adapting this important international organisation to the current situation.

The double role of the IAEA – promotion of nuclear power and prevention of the proliferation of nuclear weapons – is a contradiction in itself. As Hannes Alfvén put it concisely as early as 1974: “The civil and the military nuclear industries are Siamese twins!“ Promotion of mass production of plutonium impedes reliable control of this fissile material.

IAEA members are not only states, but also NGOs with consultative status and others which are observers. These NGOs consist of nuclear advocacy groups from industrialized countries and from the atomic industry. Because of this the IAEA is a powerful but one-sided organization promoting nuclear the industry at top international level.

The World Health Organisation (WHO) and the IAEA on 28th May 1959 signed an agreement (WHA 12-40) to consult each other on subjects relevant for both parties to achieve mutual agreement. This agreement in practice has prohibited a comprehensive study by the WHO on the health impacts of nuclear power in general and the consequences of Chernobyl in particular. The resulting denial of radiation-induced health effects by the IAEA disregards the right of millions of radiation victims to receive acknowledgment of their health damage as radiation-induced and getting compensation.

After the catastrophe of Chernobyl proposals have been offered to the IAEA to establish an emergency force which uses the experiences, the technical equipment and the expertise which resulted from the recovery work at Chernobyl. This proposal fell on deaf ears on the part of the IAEA. The Fukushima accident demonstrated clearly that this neglect had been a grave mistake.

The majority of the IAEA member states nowadays no longer intend to construct nuclear power stations, quite on the contrary: Several states have decided to phase out their nuclear power plants.

Therefore it seems to be high time to review the anachronistic statutes of the IAEA and start a process of reform.

The Main Goal from the Perspective of Sustainable Development:

Instead of the present IAEA, which promotes nuclear power and plays down or neglects its health effects and consequently fails to fulfill its role in safeguarding, we need an organisation for promoting and supporting the phase-out of the military as well as the civil nuclear industries. Furthermore it must take responsibility for all measures relevant to the mitigation of the legacy of nuclear pollution created so far.

Proposals for a Reform

- The treaty between IAEA and WHO which has blocked comprehensive investigations of the health effects of atomic radiation has to be cancelled.
- The assertion that every State has the right to build nuclear power plants (thereby putting neighbouring countries at risk) must be eliminated from the statutes of the IAEA.
- The promotion of nuclear power has to be eliminated from the statutes, and on the other hand the IAEA's supervising, checking, and controlling powers should be improved substantially.
- In order to make this possible, the composition of the members has to be changed. Organisations representing the victims of radiation and others, independent from nuclear industry, should get influence within the IAEA.
- Following the example of the USAEC which could not fulfil its double role of promotion and control of the nuclear industry and therefore had to be transformed into the Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC), the possible short-term step of a separation of the IAEA's control function from its promotion function could be taken into consideration.
- The danger of large-scale nuclear accidents will continue to exist during phase-out and decommissioning of existing nuclear power plants. The accidents at Three Mile Island, Chernobyl and Fukushima have clearly demonstrated the inability of national nuclear emergency services to deal with such accidents. It would be wise to create, within the framework of a future IAEA an International Nuclear Emergency Service (INeMS) to help nations reduce the scale of nuclear accidents and mitigate their consequences.
- A large number of humans has been exposed to internal and external radiation as a consequence of nuclear bomb explosions, nuclear tests and nuclear accidents around the globe. A comprehensive database on these cases is still non-existent. It would be the task of a future IAEA to create and update such a database and guarantee access to it for interested organizations and individuals.
- A future IAEA also should establish the possibility for nuclear specialists to report

anonymously violations of nuclear safety regulations by their employers.

We suggest organizing an international conference with the participation of representatives from likeminded countries to work out a practicable procedure for a reform or a structural transformation of the IAEA.

As representatives of the civil society we announce that from now on we are determined to accompany the yearly assemblies of the IAEA with critical activities in order to raise public awareness for the necessary transformation.