

UN-Resolution «Climate Change by Radioactivity»

Urgent Call for Global Action

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The facts are obvious, the interpretations compelling. «Climate Change by CO₂» can not be denied any more. It produces the effects of **climate warming** caused by the release of greenhouse gases. Consistent action will hopefully reduce these greenhouse gases in time. In contrast «Climate Change by Radioactivity» designates a **climate change**, which is caused through artificially produced radioactivity. Both can reach terrible extents and one may not be used to discount the other.

But while the whole world discusses «Climate Change by CO₂», the nuclear industry and supporting organisations promote the alleged “climate friendly, CO₂-free” nuclear energy as a solution to climate change. However it is not important whether nuclear energy is CO₂-free or not. Nuclear power plants produce large quantities of radioactivity and cause by themselves a dangerous «Climate Change by Radioactivity», because in a climate contaminated by radioactivity no life is possible.

1. Order of magnitude:

The nuclear energy produced in a nuclear power plant is strictly speaking a by-product, since in the reactor only 0.1% of the fuel is converted into energy, thus 99.9% remains as radioactive waste. The produced radioactivity can be set free by technical or human failure, terrorist attacks, natural catastrophes or gradually in so-called “safe storage locations” due to geological changes and/or by the run of the time. In addition there is the risk of abuse: «The spent fuel from nuclear plants contains enough plutonium to fabricate about 30 nuclear weapons from a single year of operation of each power reactor.» (Richard L. Garwin, «The Future of Nuclear Energy», 25./26.9.2008). Therefore each nuclear power plant can be abused in order to enable the production of nuclear weapons.

Already in April 2001 the US nuclear physicist Richard L. Garwin explained the quantity of radioactivity in a nuclear power plant at the Nuclear Control Institute in Washington: «Since a reactor in one day produces as much radioactivity as a 50-kt nuclear explosion, and fuel in a reactor has typically been there for an average of two years, a typical nuclear reactor has in its core the long-lived radioisotopes from 30 megatons of fission.» (Richard L. Garwin, «Can the World Do Without Nuclear Power? Can the World Live With Nuclear Power?», Nuclear Control Institute, 9.4.2001).

The Hiroshima nuclear bomb corresponded to a 12.5 kt nuclear explosion. Thus, an average nuclear power plant produces a daily quantity of radioactivity equivalent to four Hiroshima nuclear bombs, which each year adds up to radioactivity in the order of magnitude of 1460 Hiroshima nuclear bombs. In a nuclear reactor even radioactivity exists in the order of magnitude of 2920 Hiroshima nuclear bombs (the production of two years). The five Swiss nuclear power plants alone contain radioactivity in an order of magnitude of approximately 10'000 Hiroshima nuclear bombs!

The roughly 440 nuclear power plants world-wide in operation for decades, contain radioactivity in an order of magnitude of **about one million Hiroshima nuclear bombs** (the production of two years). But they generate only 3.3% of the global energy supply. Still some countries are building additional nuclear power plants.

2. Effects:

This artificially produced radioactivity – this «Climate Change by Radioactivity» – radiates from the human perspective for eternal times and cannot be destroyed. Already this «Climate Change by Radioactivity» has developed for a long time; and must urgently be brought to the forefront of the international agenda and gain global awareness with the same priority as «Climate Change by CO₂».

Artificially produced radioactivity is probably the most hostile climate of all. The adverse health effects and the difference between artificially produced and naturally occurring radioactivity are comprehensibly summarised in the «Medical memorandum for the industrial use of nuclear energy» by Dr. med. Max Otto Bruker. The research work of Dr. Rosalie Bertell (alternative Nobel Prize 1986) and the study «ECRR 2003 - Recommendations of the European Committee on Radiation Risk» (Brussels 2003) analyse the effects of radioactive low dose radiation during normal operation of nuclear power plants. And in the recently published article «Murderous Uranium» (natur+kosmos, number 06/2009) the journalist and author Claus Biegert describes the fate of many thousand humans in the contaminated uranium extraction areas.

With a disaster in the context of «Climate Change by CO₂», the situation can often be helped directly thereafter. Humans can go there and save what can be saved and begin reconstruction, e.g. as with the hurricane «Katrina» in New Orleans. With a disaster in the context of «Climate Change by Radioactivity» this is not possible, as the area is no longer habitable for indefinite times. If in New Orleans an accident would have set free the radioactivity from a nuclear power plant due to technical-human failure or due to the consequences of the hurricane «Katrina», then not even a thought for reconstruction would exist. US nuclear physicist Richard L. Garwin summarises: «Reactor accidents... too horrible to think about.»

As of today there exist no safe storage locations for nuclear waste, nor will that ever be the case, since the legislators in different countries require a security guarantee of one million years for final nuclear waste disposal (see USA and Germany). One does not have to be an engineer, in order to recognise that such a security guarantee is never possible and would require not calculable, practically infinite costs.

Whoever promotes nuclear energy as sustainable, clean & green, or as a solution to climate change, falsely abuses the attributes of renewable energies and suppresses the fact that radioactivity is produced in nuclear power plants. On a legal level also questions of international law and human rights arise apart from the observance of constitutional principles for the preservation of the quality of life as well as the means of livelihood.

3. Global and local solution:

The «Climate Change by Radioactivity» should be addressed immediately by the General Assembly of the United Nations. The basis of an effective global solution could be a **UN-Resolution**, which obligates the governments: **(a)** to inform their population about the «Climate Change by Radioactivity»; **(b)** to guarantee that the purchase of Natural Power (electricity generated from renewable energies) will not cause extra costs; **(c)** to assure that suitable economic conditions for investments in renewable energies are guaranteed on a long-term basis; **(d)** to renounce bringing new nuclear power plants into operation; **(e)** to support a world-wide prohibition of marketing and building new nuclear power plants; **(f)** to shut down existing nuclear power plants as soon as possible; as well as **(g)** to store and permanently supervise the radioactive wastes already existing as securely as possible.

The population can support this global solution actively, if each household orders 100% Natural Power from renewable energies (sun, wind, water, biomass, geothermal) from its electricity supplier. A rising demand for Natural Power will lead to the necessary investments for building-up the required supply of Natural Power. Each order of Natural Power supports the build-up of a power supply with 100% renewable energy and is future-oriented climate protection.

Just as it is common knowledge today that for example cars, oil heatings and coal-fired power stations cause «Climate Change by CO₂», we must become conscious that all electrical devices (i.e. world-wide millions of light and energy-saving lamps, electric irons and efficient refrigerators, computers and telephones), which are not yet operated with 100% Natural Power, cause «Climate Change by Radioactivity» by using nuclear power.

Both, «Climate Change by Radioactivity» and «Climate Change by CO₂», must be solved all-out and be terminated as far as possible. The main difference is that nuclear energy and the thereby artificially produced radioactivity can and must be terminated completely or by 100%. On the other hand the consumption of fossil energies only has to be (and can be) replaced partially, i.e. up to 80%, by renewable energies, in order to re-establish the natural balance of greenhouse gases. Then again CO₂ can be sufficiently absorbed and converted into biomass through natural processes of plants (i.e. photosynthesis).

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