The nuclear environmental disaster of Fukushima Daiichi is just beginning.

By **SERGE SARGENTINI** 2011 05 05 [French version]

Victor-Hugo Espinosa Ecoforum (to left) and Serge Sargentini of Next-up organisation France.

Contrarily to what we could think, the disaster of Fukushima Daiichi is just beginning: a new poisoning of the planet Earth is in progress.
While many governments are finally becoming aware that the safety of the nuclear reactors cannot be reliable and are thus adopting a radical political change, on the other hand the Japanese people just begin to discover and to assess the extent of the environmental disaster of Fukushima Daiichi.

While the world has its eyes riveted on the nuclear site of Fukushima, the main issue is not really the level of radiations, on the site of the nuclear power-plant, but the scale of the impact of the emissions of contaminating radioactive particles which have been generated and which are still generated and disseminated in the world environment.

The difference existing between the artificial Electromagnetic radiations, which are stemming from the full spectrum of non-ionizing radiations (High Frequency microwaves), and those of the spectrum of ionizing radiations lies, in particular, in the possibility of turning off a simple switch to stop the source of artificial Electromagnetic emissions from non-ionizing radiations stemming from High Frequency microwaves; such a procedure cannot be used in the case of ionizing radiations. While it is possible to confine, as much as possible, the Electromagnetic ionizing radiations stemming of the X, γ and the α, β-, β+ radiations, on the other hand, it is impossible to stop those stemming from the dispersal in the atmosphere of a whole range of radioactive compounds which are all going to be a source of radiation exposure: this dispersal is called environmental ground radioactive contamination and human contamination by particles, the latter being the most dangerous, by far, because it is almost impossible to cancel it.

The dangerousness of the artificial E.M. radiations is defined by three basic physical parameters:

1 - The intensity of ionizing or non-ionizing radiations is inversely proportional to the wavelength; it means that the smaller the wavelength, the more important the intensity of E.M. radiations.
2- The power [Specificities of the ionizing radiations - Fr] of the activity of disintegration for each unit and type of radioelements which compose the particle.
3 - The intensity of ionizing or non-ionizing radiations decreases with the inverse square of the distance, which means that the further we go away from the source of artificial E. M. radiations, the more the intensity of radiations decreases; this principle is equally valid for all the broadcasting stations of E.M. radiations such as phone masts towers, etc...

The most crucial problem in the case of the disaster of Fukushima comes thus essentially from particles: we are facing a contamination on the long term, and the very long term, in relation with the multiple sources of emissions generating E.M. Fields which are called Radioactivity stemming from radioisotopes or radionuclides composing the particle. A radioactive particle landing upon an external human tissue is not dangerous in terms of ionizing because it is easy to remove it quickly by simply washing it out (decontamination), the relationship dose/time being unimportant. On the other hand, in case of inhalation or ingestion, it is almost impossible to get rid of it: it settles in tissues or migrates and induces an ever-lasting ionization in fields close to cells WITHOUT ANY SAFETY DISTANCE and this generates a one-billion coefficient multiplier of ionization!

This issue is now fully planetary, and more specifically for the whole north hemisphere, and it is acute in Japan where the radioactive particles are still permanently disseminated all over the country.

So far, only concentric circles around the nuclear site of Fukushima Daiichi have been devised according to the distance (atmospheric dispersal): no rigorous mathematical approach has been developed according to the diverse meteorological conditions, geographical features and topographic configurations. Moreover, an absurd and on-going situation is still prevailing: the decontamination of vehicles leaving the strongly contaminated zones is almost non-existent). This lack of rigorous approach is inducing a very strong contamination in zones which are often situated more than 50 km away from the nuclear site of Fukushima Daiichi: all the living organisms of these far-away zones are thus contaminated, within a short time, above the admissible levels.

Information and propaganda.

The main striving of the Japanese Government is now to release sparingly the information to prevent the population to understand and assess exactly what is bound to happen on the short and mid terms: the goal is thus to suppress, as much as possible, the facts in order not to frighten the population.

Indeed, it is now the scientific rigorous methodological approach which, according to the universal laws of physics, is going to determine the outcome of the scenario of the nuclear environmental disaster of Fukushima, not withstanding the eventuality of major event(s). According to all the experts, there is nothing whatsoever to speculate about the future: the logical course of events is not going to be altered by any ways of disinformation, manipulation, cacophony, confusion or uncertainty; it is just a question of time.

With the inhaled or ingested radioactive particles, we are confronted with an internal radiation diluted in the mass of tissues, the toxicity of which can be only quantified with difficulty. Moreover, it is equally difficult to assess the threshold below which the risk can be considered as acceptable: consequently the official concept of ICPR world standards (International Commission on Radiological Protection), namely "the admissible absorbed dose" is null and void. [Monograph of the effects of the radiations according to the cumulative dose]

That also means that all the charts used, until now, by the governmental health authorities, are only valid for an environmental pollution induced by an identified radioactive quantifiable external source, but not for a load of internal radioactive contamination which is close to impossible to quantify. These official communications are mere propaganda to deceive and reassure the public opinion. This issue of disinformation is notoriously enormous in France: there is plenty of media hype around the measures released by the IRSN radiation monitoring stations which are almost strictly of no use to cope with the consequences of the Fukushima Daiichi disaster.

The Fukushima Daiichi disaster constitutes a danger for the humanity and this danger is intrinsically increased by the type of reactors (Boiling Water Reactor or BWR). This type of reactor is functioning without a secondary circuit, thus without heat-exchanger, to drive the turbine of the alternator. In Fukushima, the pipes of the radioactive primary circuit, connecting directly the pools of 3 reactors at least, are more or less destroyed releasing and continuing to release an important mass of highly radioactive and contaminating compounds in the atmosphere, on the ground, in the soils, in the water-tables and in the ocean.

Let us not be misled: the tens of thousands of dead people generated by the tsunami will be "nothing" in comparison to those which are going to be caused by the environmental contamination, of certain zones of Japan, resulting from the radioactive particles of the irreversible nuclear disaster of Fukushima Daiichi.
Moreover, it is almost impossible to go back to normal. If we go along the best scenario, Japan will to have to give up a portion of its territory for decades, even for centuries and manage globally a new environment.
As to the worst scenario, it is wiser presently to abstain from any speculation because of so many possible happenings.

In practical terms, we already see how "the Japanese innovation spirit" is trying to save certain key-places such as school-yards : rehabilitations (Editor's note: "as a twig in the path of a runaway train") are realized by cleaning the contaminated ground [1] [2] and by adding, upon what is left, a layer of soil which is supposedly non-contaminated. All these very specific actions will quickly show their limits. It will soon be the same predicament for export manufactured goods: a certificate of non-contamination will change practically nothing because, intrinsically, the particle-induced contamination is fluctuating.

In the weeks and months to come, the contamination of the north hemisphere, which has already be assessed, is bound to increase, not to speak of the oceanic (bioaccumulation).
During the same period the Japanese Government will have to manage, for the nth time, an escalation of the constraints because new zones will have to be NECESSARILY forbidden. **this according to the merciless maths of the values of cumulative doses stemming from the universal physics**.
A worse projection (but it is plausible and many people even think that the outcome will be more drastic), which may take a few months or a few years, is a conjugation of the extension of the ground contamination and of the contamination of all the food chain (or part of it) on a vast territory. In this type of situation, Japan would need to evacuate very densely populated zones.

Historically, for the Japanese people, there will be a before and an after Fukushima.
Historically, for the advocates of nuclear energy, the Fukushima disaster, may be and finally, will mark... the beginning of the end.
Historically, a new phase is being reached in the litany of announces concerning the environmental refugees.
Indeed, we have come full circle as to the issue of artificial Electromagnetic Fields. The "REFUGEES FROM MICROWAVES" (video report) have been furiously silenced. Here is presently a new wave of nuclear refugees, who in 2011, thanks to the Web, cannot pass anymore unnoticed unlike those of Chernobyl.

Serge Sargentini

Translation Dominique Kokopelli
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