

## **Conflicting Mandates, Co-Opted Studies: Atomic Energy Agency and the World Health Organization**

### **Background: Conflicting Mandates**

In 1959, the International Atomic Energy Agency (IAEA) and World Health Organization (WHO) entered into an working agreement which is out-of-date and conflicts with the research of the WHO to determine the effects of ionizing radiation exposure on human health. We are concerned that the language of this agreement (WHA 12.40 approved by the 12<sup>th</sup> World Health Assembly on 28 May 1959) mingles promotion of nuclear technology, including nuclear power, with the WHO's mandate to undertake international health research work on people exposed to ionizing radiation-a product of this same nuclear technology.

Specifically the WHO, as stated in its Constitution, has a mandate to “promote and protect the health of all peoples.” Health is defined as “not merely the absence of disease or infirmity” but “the enjoyment of the highest attainable standard of health.” This highest attainable standard “is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.” In order to meet this objective, the WHO is “to act as the directing and co-ordinating authority on international health work... and to assist in developing an informed public opinion among all peoples on matters of health...”

The International Atomic Energy Agency (IAEA) has as its objective “to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world.” Not only is IAEA's mandate to *increase* the use of atomic energy worldwide, this statement in the IAEA statute (*Statute of the International Atomic Energy Agency*, 23 October 1956 with subsequent amendments. 2000) assumes without question or documentation that atomic energy *can* contribute to “peace, health and prosperity...” This idealistic statement obviously comes from a time when the public was less aware of the dangers of radiation exposure and many thought nuclear energy would be man's salvation: this new wonder technology could be used for digging canals, fueling cars and houses, curing disease. Were circumstances, such as the Chernobyl nuclear explosion, to prove otherwise our use of atomic power would be called into question and the objective of the IAEA seriously threatened. Therefore, for IAEA, it is a matter of self-preservation that nuclear power be seen as a contributor to, rather than a spoiler of, health.

### **It is not the mandate of the IAEA to conduct health studies. So why has it?**

“Health” is only mentioned in one other capacity in the IAEA statute. This regards the IAEA's function “to establish or adopt...standards of safety for protection of health and minimization of danger to life and property...and to provide for the application of these standards...” If anything, this language suggests that IAEA should be involved *prior* to a

nuclear accident and radiation release, not *subsequent* to an event. In fact, one could argue that once an accident has occurred, this IAEA standard has been violated. No statement in the IAEA statute allows for IAEA intervention in health studies following radiation exposure to members of the public, or for the implementation of studies assessing potential damage or resultant disease from exposure to radioactive agents. In fact, the IAEA statute should not contain any such function since studies performed under these conditions would be an inherent conflict of interest added to the already-present IAEA conflicting role: both promotion and regulation of nuclear technologies and materials.

### **Agreement WHA 12.40 and certain restrictive clauses**

Agreement WHA12.40, made between agencies with very disparate objectives, recognizes IAEA as possessing “primary responsibility for encouraging, assisting and coordinating research on, and development and practical application of, atomic energy for peaceful uses... article 1 para. 2” Additionally, this agreement stipulates that “whenever either organization proposes to initiate a programme or activity on a subject in which the other organization has or may have a substantial interest, the first party shall *consult the other with a view to adjusting the matter by mutual agreement*. Article 1 para. 3 (emphasis added)”. It also adds a privacy clause in Article 3 para. 1: The IAEA and the WHO “recognize that they may find it necessary to apply certain limitation for the safeguarding of confidential information furnished to them. They therefore agree that nothing in this agreement shall be construed as requiring either of them to furnish such information as would, in the judgement of the party possessing the information...*interfere with the orderly conduct of its operations*. (emphasis added)”

### **IAEA’s conflicts-of-interest remain and WHO’s objective is threatened**

Since the only official document linking the IAEA to health outside the standard-setting realm is the IAEA/WHO agreement (WHA 12.40), one must assume that the impetus for all the IAEA investigations into the health effects of Chernobyl come under it. But IAEA has failed to alleviate its conflicts of interest. It is not the purview of IAEA to produce health studies assessing how the technology they are charged to promote does or does not harm people; yet they have released many reports on the subject, including *Chernobyl in Perspective* (1996) resulting from the International Chernobyl Project (ICP). While the WHO has also released many documents regarding the health damage due to Chernobyl, a pivotal report from a 1995 IAEA conference in Vienna remains unpublished and almost impossible to obtain. At this conference, international experts gave several papers on the deleterious effects of ionizing radiation on the human genome as illustrated by the research of the exposures at Chernobyl.

Currently, the IAEA is undertaking a different project on the health consequences of the accident while the International Programme on the Health Effects of the Chernobyl Accident (IPHECA) project of the WHO ceased right at the time when certain radiation-induced human cancers would start to manifest.

The fact that a United Nations agency established for the promotion of nuclear power is able to conduct research on the health effects of the technology it is charged to promote is unconscionable.

### Problems with IAEA health assessments

IAEA protocol and researchers have made and fostered assumptions which limit the scope of health investigations. The IAEA has concluded that “no sustained severe impacts on animal populations or ecosystems have been observed,” yet, many areas will remain permanently (600 years) contaminated with anthropogenic radionuclides cycling through the local environment. The long-term effects of this contamination on ecosystems, animals and humans is yet undetermined, although we are starting to see genetic changes in animals. In effect, those living in contaminated areas are unwitting or unwilling participants in this experiment. Throughout its work among Chernobyl victims, IAEA shows little interest in relocating people to less contaminated sites. Little wonder since IAEA claims that “[t]he radiation levels that can still be detected in most affected areas are sufficiently low as to permit normal economic and social activity to be resumed.”

In its health studies, the IAEA claims to search for what they consider “radiation-induced” illness. The IAEA also concluded that while thyroid cancer increased as expected, “The health effects have not turned out to be as catastrophic as some feared and others reported.” This result was also “expected” by the IAEA. Several international scientific studies reach a very different conclusion.(see references below) These conclusions rest largely on what is considered a radiation-induced illness. IAEA says that there are two main types of health affects: (1) early syndromes, such as acute radiation sickness and (2) long-term radiation induced malignancies and hereditary effects.

IAEA places several assumptions and parameters on these categories and the research which it conducts. Only a few of these inappropriate restrictions are listed here. The following, according to the IAEA is a list of *non-radiation induced* health problems: headache, depression, fatigue, and appetite loss. If other diseases meet certain criteria, the IAEA may consider them radiation induced. First, for early syndromes, symptoms must appear quickly and the dose of radiation must be above a certain, unspecified threshold, as determined by IAEA. Additionally, early syndromes are those which can “be diagnosed by a specialized practitioner who can *unequivocally* attribute the type and severity of the effect to the amount of the individual’s radiation exposure (emphasis added)” Second, they assume that hereditary and malignant effects (called long-term effects) are “difficult or sometimes impossible to discern from the usually high normal incidence of these types of effects in the population.” Furthermore, IAEA states “These long-term effects cannot be directly attributed to radiation from the results of individual clinical examinations but only indirectly through long epidemiological studies in large population groups.” If, as some would argue, the field of biodosimetry is finally being accepted as an aid in dose reconstruction, a statement like this is at best, premature--at worst, misleading.

In the end, IAEA presumes that if health effects of the long-term kind are seen in the wrong place or at the wrong time (as defined by IAEA), they must not be related to radiation exposure and must, therefore, be caused by something else. The over-all assumption is they won't find anything, so when they do, they attribute the cause to anything other than radiation. Also, for some health effects of the second type, well-documented methods exist to assess radiation exposure instead of or in addition to current dose reconstruction methods. These methods can be preferable to waiting for large numbers of people to get sick and having to do a shot-in-the-dark, very malleable dose reconstruction which is highly subject to interpretation. Methods like cytogenetic analysis and internal measures of radionuclide body-burden have been available, are becoming more reliable and can be more precise than dose reconstruction which tries to fit every exposed individual into a single model or two. In fact, independent studies which use these methods, do show positive correlation between health effects and ionizing radiation exposure.

Finally, the IAEA only looks for certain kinds of health effects due to radiation exposure. "The term 'long-term radiation induced malignancy' is used for solid tumors having a latency period from the time of induction to their appearance of more than 10 years." So any solid cancers that show up prior to these 10 or so years, are not, by IAEA definition, counted as radiation induced. Further, according to IAEA, "Hereditary effect of radiation is an effect appearing in the offspring due to mutagenic changes due to the radiation exposure of the parent's germ cells...hereditary effects associated with radiation exposure have never been observed in humans..." This last statement is extremely controversial among the experts, largely due to uncertainty of disease attribution.

While leukemia, a well-known effect of radiation exposure, does not appear to fit into any of these categories, it is actually included under "radiation-induced malignancy" even though leukemia is "expected" to show up earlier (5-10 years after exposure) than other cancer forms. IAEA claims there was no significant increase in this disease as a result of Chernobyl. This conclusion is despite reports that many registrars in the most heavily contaminated towns were told not to indicate "leukemia" as a cause of death. (the Ecologist, Nov 1999) Additionally, since IAEA claims that studies show leukemia incidence reaches its peak 5-10 years after exposure, one can reasonably conclude that the epidemiological search for leukemia has halted. The IAEA is not looking for other effects or diseases associated with ionizing radiation exposure which can include (this is a partial list): downs syndrome, diabetes mellitus, ischemic heart disease, reduced immunity, chronic fatigue, gastro-intestinal and endocrine disorders. This list does not account for damage to the human genome which could become apparent once it is too late to correct.

## **Correcting WHA 12.40**

To help ensure that the IAEA's objective of promoting atomic energy does not interfere with the valuable work of WHO on Chernobyl and other radiation and health studies; and to bring this agreement in line with our current knowledge of radiation and health damage, we ask that WHA 12.40 be amended as follows:

1. Remove the requirement that any WHO program on the health effects of nuclear energy must first be discussed with and agreed to by the IAEA. The IAEA's entire history demonstrates that its conflict-of-interest is too great to have credibility. They should not have to agree on study design or health effects studied, for instance, in order for WHO to do its work.
2. We further ask that the provision safeguarding confidential information (article 3, para. 1) be amended to allow for nondisclosure of only such information which has no bearing on health or environmental risks of nuclear energy. According to the WHO Constitution, the "Informed opinion and active co-operation on the part of the public" relating to the health risks to a population or populations is crucial to enable WHO to carry out its functions. If the WHO has its information dissemination restricted, it cannot function properly as recognized by its own constitution. "The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest co-operation of individuals and States." If WHO continues to participate in the IAEA agreement, their ability to conduct their mandated work could suffer further to the detriment of science and public health.

It is not the mandate of the IAEA to assume primacy over studies which research the health and environmental effects of ionizing radiation released from routine operation or accident. It is scientifically irresponsible and in no one's best interest to limit, by assumption, the kinds of diseases which may be caused by lower-dose, long-term ionizing radiation. And because the IAEA has such a blatant objective to promote atomic energy, they should under no circumstances be allowed to assess its health and environmental effects.