

## **Nuclear Information & Resource Service**

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NIRS Supplemental Comment on Draft Report: Decision Making for Late-Phase Recovery from Nuclear or Radiological Incidents

This document is in addition to comments from NIRS as part of a sign-on document and also more detailed comments from NIRS, Committee to Bridge the Gap and other allied organizations.

#### SUPPLEMENTAL COMMENTS:

There is no cure for exposure to ionizing radiation, therefore NCRP has missed what should be its primary calling as a body dedicated to radiological protection: prevention; prevention of exposure of individuals to radiation, and therefore prevention of the very "incidents" that the current document, rather than labeling as criminal, seeks to pre-certify as "acceptable" in advance.

Since there is no cure for exposure to ionizing radiation, there certainly is no rational or logical "management" or "recovery" from a nuclear weapon detonation or from a major reactor accident. Prevention is the only cure, and NCRP has certainly demonstrated a complete lack of comprehension or commitment to this call. Perhaps it is time for a reassessment of how this body is constituted since the current group is recommending protection the perpetrators, not the victims. In fact, the "give away" to nuclear industry, to its regulators, to the governments that approve the appointment and operation of the regulatory bodies is truly stunning -- certainly in the billions of dollars for a single "incident" and given history, this could, over time become trillions--to the benefit of those who should bear the liability, and therefore the responsibility to prevent such "incidents." NCPR seems to be dispensing sleeping pills for those who should bear responsibility, not "recovery."

## Gender, Human Life-Cycle and Radiological Protection

Attached to this comment is a short briefing paper written in October 2011, entitled "Atomic Radiation is More Harmful to Women" which is also posted here: <a href="http://www.nirs.org/radiation/radhealth/radiationwomen.pdf">http://www.nirs.org/radiation/radhealth/radiationwomen.pdf</a>

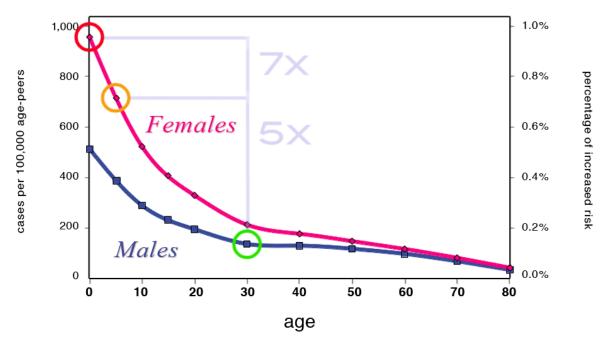
This comment on gender begins with this perspective: the eyes that are reading these words right now would not be reading these words but for someone who was female, and who passed through the 0--5 age group to reproduce. There is no member of our species alive today who was not themselves, or the progeny of someone who was female and in that age group. Period. The concerns of females in the 0--5 age group are therefore universal.

There is no circumstance pertaining to unlimited access, use, consumption or exposure wherein the female gender and the conception to 5 years age "does not apply." Therefore, all risk assessment must consider this group as the limiting factor -- as the primary "receptor" and as the goal of protection.

As much here as elsewhere we affirm that since there is no safe dose of ionizing radiation, there should be a zero additional dose goal.

The body of work that will help to explain gender difference--100 percent greater harm to females compared to male in the juvenile group, and still 40--60% more harm comparing adults-lies ahead, so we are confounded today in knowing what the specific factors are that place females at so much higher risk. We see the difference in the data harvested from the horrific bombings of Hiroshima and Nagasaki and the ABCC (Atomic Bomb Casualty Commission) data which was later re-labeled LSS (Life Span Study), as presented in the 2006 National Academy of Science BEIR VII report (tables 12 D-1 and 12 D-2 and 12 D-3). The contents of Tables D1 & 2 which present risk of cancer from exposure to ionizing radiation across the human lifespan are graphically presented here:

# Increased Cancer Risk by Age at Exposure to 20 mSv Radiation



U.S. National Academy of Sciences BEIR VII Phase 2 Risk Model

Graph produced by Ian Goddard is based on data and risk model from "Health Risks from Exposure to Low Levels of Ionizing Radiation: BEIR VII" Phase 2. Board on Radiation Effects Research (BRER), Washington, DC: The National Academies Press, 2006.

The pink line's divergence from the blue line is clear past the age of 50, but is most striking in the 0--5 age group. Given this striking difference between genders, it is no longer acceptable to base radiation policy on data exclusively from males and also inappropriate to extend polices that contain assumptions solely based on the impact of radiation on male bodies.

It is long past time to use data, presumption and assumption based on adults when making policy which applies to unrestricted areas and the "general public." The perpetrators of nuclear and radiological policy seem to forget that the only way that reproduction in our species will go forward is if all parts of the human life-cycle are protected. The Standard and Reference Men cannot reproduce by themselves.

While it as laudable that there are nearly 1/3 of the current council who are in the group that is disproportionately impacted by atomic radiation, it must be noted that it is yet a disproportionate number of members who are not in that group, which should not matter except for the choice of framing for the executive summary. The executive summary is framed in terms of wealth in modern times, and some implication that a technology that accounts for only 6 percent of the energy generated on this planet and 11% of the global electric power should be seen as a causal agent for that wealth...when both the wealth (or lack thereof) and the disease impact associated with ionizing radiation exposure, which also, by implication is being justified, have a disproportionate impact on a group that does not control the NCPR body.

This author fully assumes that both genders need females to be healthy, and that there are a great many in the male gender who are terrific advocates for female health, female wealth and female control of decision-making bodies. We do not see that advocacy reflected in the work of NCRP. While NCRP readers may be wondering what that has to do with its mission, we submit it has a lot more to do with radiation **protection** than Eisenhower and Atoms for Peace ever will.

Respectfully Submitted,

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