

Summary of Articles:

- ① GAO - Report to the Chairman, Committee on Governmental Affairs, U.S. Senate
"Nuclear Health and Safety: Consensus on Acceptable Radiation Risk to the Public Is Lacking".

This report examined the degree of consistency and compatibility in i) various limits on public exposure to radiation included in the federal radiation standards

ii) the various protective strategies associated with the standards and also, focused on whether the standards as a whole provide a coherent, complete federal framework for public radiation protection.

The estimated risks to the public, that are associated with radiation standards, vary considerably. Agencies do not agree on limits and the associated risks. Different calculation methods and protective strategies are used by the EPA and NRC and other agencies. There is no unified framework for federal radiation protection. This has resulted in dual regulations of licensees and no standards for many sources^{of} radiation. GAO recommends that EPA and NRC take the lead in sustaining and broadening the harmonization effort to include the effective participation of other agencies and CIRRPC in pursuing interagency consensus on radiation dose, risk calculation methods, radiation protection strategies and on overall consensus on how much radiation risk to the public is acceptable.

- ② Meeting on the Basis for Regulating Radionuclides in Drinking Water: Chemical vs. Radiological Approach

R. Maruska, Ontario Hydro

The radiological approach i) uses top-down method ii) sets upper limit on risks iii) considers all radiation, all radionuclides, all media iv) uses ALARA to stay below this value.

The advantages and disadvantages are listed about these points.

M. Goldberg discusses chemical paradigm in risk assessment which includes hazard identification, dose-response assessment, exposure assessment and risk characterization.

N. Gentner (AECL) says the likely health impacts are zero due to D.N.A repair ^{and} adaptive responses. The radiation paradigm vs. chemical paradigm are not incongruous; the ODWO is for all radionuclides while the chemical standards are for each single chemical where, dozens of chemicals can add up to the same level of risk as ODWO.

③ Ruben's submission to Ministry Oct 28, 1994.

Ontario Hydro's bottom line conclusion, that meeting the 100 Bq/L objective would have enormous costs, is wrong. There are many facts to prove this. - one being that 100 Bq/L levels are already being met with no negative cost effects. Even if de-tritiation is needed, Ontario Hydro has not analyzed the least cost de-tritiation technology ^{and} it has artificially inflated the operating costs of maintaining 100 Bq/L level.

Hydro's incentives to abate tritium emissions are misstated and are falling not rising. Hydro justifies the present double standard for prevention of cancer by insisting that public demands consistent regulations. These same principles are used by Energy Probe.

④ Rubens submission to ministry - Aug 28/94.

more recent info justifies more aggressive reduction of tritium emissions to the environment than recommended by ACES. Few sources of evidence are discussed such as new studies indicate that along with cancer evidence of autoimmune disease can be caused by radiation exposure. It further outlines why tritium issue is being discussed; how tritium gets into the tap water and how it could be kept out at least cost; and should we avoid reducing the cancer risk from tritium because it may start a "domino effect" that will destroy the nuclear industry?

List of Contacts:

1. Dr. Steven Brown, University of California

510-430-8118

member of radiation committee

contributed to "Harmonizing" article

2. Dr. Mary Clarke

802-233-9348

technical advisor to Radiation and Indoor Air committee

3. Dr. Jack Keeyoonjam

802-240-2560

EPA contact

4. Paul Slavic, Portland Oregon

risk perception and standard setting

503-485-2400

5. Susan Raul

301-903-4731

