



700 University Avenue, Toronto, Ontario M5S 1X6

MEMORANDUM

Distribution

12 July 1994

NWESD-00541 T-5

Meeting regarding the ACES recommendations for tritium in Drinking Water

Following a meeting last week with representatives from Ontario Hydro, Ministry of the Environment and the Advisory Committee on Environmental Standards, it was agreed that a meeting should be held to discuss the technical basis of the ACES recommendations concerning the Ontario Drinking Water Objective for tritium.

The basis of the recommendations from ACES appears to be that the approach for regulating chemicals carcinogens should be adopted as the policy for setting drinking water objectives for radionuclides. This is in contrast to the traditional approach based on the total effect of exposure to radiation.

To facilitate the discussion, Ontario Hydro has organized a meeting on this issue. Please find attached a copy of the agenda for the meeting to be held on Friday July 14, 1994. At last week's meeting it was agreed that all stakeholders should be available to allow a full discussion of the issue so that all implications can be identified. It is our hope that this meeting can be used to explore options for the resolution of this issue.

Yours Truly

A handwritten signature in cursive script, appearing to read "R. Maruska".

**R. Maruska
Environment Dept.
Nuclear Waste and Environmental
Services Division**

Att

- 2 -

Distribution

12 July 1994

Distribution:

B. Thorpe,	MOEE
I. Jung,	MOEE
R. Gaghadar,	MOEE
N. Thorton,	MOEE
J. McLean,	MOEE
R. McKenzie,	MOEE
✓ M. Goldberg,	ACES
R. Stanley,	ACES
B. Savin,	ACES
C. Bennett,	ACES
G. Jenkins,	MOEE
A. Wells,	MOEE
E. LeTourneau,	Health Canada
B. Thomas,	Health Canada
A. Pilt,	MOSG
M. Measures,	AECB
L. Smith,	MOH
D. Pendergast,	CNA
D. Gorman,	ACRP
N. Gentner,	AECL
D. Chambers,	SENEC
K. E. Nash	OH
J. Ryan,	OH
R. Maruska,	OH
I. Benovich,	OH

- 3 -

Distribution

12 July 1994

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

1.0 Purpose:

- a) to increase the understanding of the two different approaches to setting drinking water standards: radiological and chemical.
- b) to explore options to address the discrepancy.

2.0 Background:

The MOEE proposed an interim ODWO for tritium of 7000 Bq/L annual average based on the recommendations of the World Health Organization. This recommendation followed the traditional method of regulating radionuclides based on the radiological approach. In this approach exposure to radiation from all media and all radionuclides should not exceed a prescribed risk.

The MOEE's Advisory Committee on Environmental Standards (ACES) has recommended that the ODWO for tritium be set at 100 Bq/L immediately and then reduced to 20 Bq/L over 5 years. When exceeded an alternative source of drinking water should be supplied. This recommendation appears to be based on the assumption that the historical approach used in regulating carcinogenic chemical contaminants in food and water should be applied to radionuclides.

Appendix 5 of the ACES report includes a discussion of the two paradigms as expressed by the US EPA's Scientific Advisory Committee. This Appendix should be reviewed prior to the meeting. If you do not have a copy call R. Maruska (416)-592-7456.

3.0 Agenda:

1. Introduction:

Purpose:

-to provide preliminary information regarding the purpose of the meeting and some background information

Agenda:

- a) review agenda and objective of meeting
- b) background on the meeting
- c) background information on radiation

Length: 10 min

- 4 -

Distribution

12 July 1994

2.0 Approach to the setting of radiological standards

Purpose:

-to review the basis of using the chemical and the radiological approach for setting radiological standards in the following areas:

- a) depth of application (i.e. all media/ all chemicals),
- b) data used for assessment
- c) basis for safe level
- d) uncertainty in risk estimates
- e) any other criteria

Agenda:

1) a review of the application of the chemical paradigm to radionuclides: Why it was chosen?, advantages and disadvantages of the choice based on a discussion of the above areas.
(M.Goldberg- 15 min)

2) discussion: questions, feedback
(All- 10 min)

3) a review of the application of the radiological paradigm to radionuclides: Why it is used?, advantages and disadvantages of the choice based on a discussion of the above areas.
(R.Maruska- 15 min)

4) discussion: questions, feedback
(All- 10 min)

Length: 50 min

3.0 Other Implications:

Purpose:

- to identify any other implications if the chemical paradigm was applied to the regulation of radionuclides

Agenda

1) Any other stakeholders will be given the opportunity to discuss the implications
AECB, Health Canada, AECL, and any other group
(approx. 5 min each)

2) discussion: (All- 10 min)

Length: 30 min

- 5 -

Distribution

12 July 1994

4.0 Options for Moving Ahead

Purpose:

- to explore options to address the differences in the approach.

Agenda:

- 1) Potential Options (R.Maruska- 5 min)
- 2) discuss the options that are available to address the issue. (All-40 min)

Length: 45 min

5) Meeting Wrap Up

Agenda:

- a) where do we go from here?

Length: 15 min.

Location: 700 University Ave. Toronto, Ontario
13 th Floor, Conference Room A
Date: July 15, 1994.
Time: 9:30 - 12:00

Chairman: K.Nash
Arranged by: R.Maruska, (416)-592-7456