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ccm : 2012-000894

Mr. Andrew Cash Member of Parliament for Davenport 1162 College Street Toronto, Ontario M6H 1B6

Dear Mr. Cash:

During the public information session organized by your office on December 8, 2012, Dr. Gordon Edwards made several false statements. The Canadian Nuclear Safety Commission (CNSC) would like to set the record straight by providing you with studies and research conducted by the CNSC on the health of nuclear energy workers and the public, as well as information on monitoring of GE workers for internal exposures.

Included in your information package are decades of studies conducted by the CNSC on topics ranging from the health of workers and their children to the health of members of the public. You will note that many of these studies are conducted in collaboration with independent experts and have been published in the peer-reviewed scientific literature. We have included studies dealing with uranium mining and milling, as well as processing and fuel handling facilities. A similar information package is being provided to Dr. Gordon Edwards and Mr. Jonah Schein.

These reports provide sound evidence that workers and residents near these facilities are as healthy as the general Canadian population. The same is true of people who live near nuclear power plants. The CNSC firmly believes that these studies are a good representation of the health of the Davenport community and the Greater Toronto Area.

In addition, we have included information regarding the radiation dose monitoring of GE Hitachi employees. The radiological exposures of workers associated with the operation of this facility are due to the manufacturing of uranium dioxide pellets. These include the potential for inhalation of airborne uranium particles and external exposure to beta and gamma radiation emitted by natural uranium. Workers' effective doses, which include internal dose, at this facility remain well below the CNSC's annual regulatory dose limit for a nuclear energy worker of 50 mSv.

GE Hitachi is licensed by the CNSC. The facility has a positive compliance history, as well as established health and safety programs. The CNSC would not issue a licence unless the proposed activities were safe. The CNSC has the expertise—nearly 80% of the CNSC workforce in professional positions have university degrees and of these, over 40% have post-graduate degrees at the Masters and PhD levels— and the strong regulatory framework to ensure that both workers and members of the public are protected and we remain available to support objective public information.



We encourage you, and through you your constituents, to visit our web site www.nuclearsafety.gc.ca to get the facts about uranium mining, health related research and the complete nuclear sector in Canada.

Yours sincerely,

Patsy Thompson, Ph.D.

Director General

Directorate of Environmental and Radiation Protection and Assessment

Canadian Nuclear Safety Commission

Enclosures:

(16)

c.c.: Peter Elder, Director General, Directorate of Nuclear Cycle and Facilities Regulation

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Comprehensive (but not exhaustive) List of Reputable Publications Pertaining to the Health Risks Related to Uranium

PUBLICATIONS ENCLOSED:

CNSC publications:

Howe GR, 2006. Updated analysis of the Eldorado uranium miners' cohort: Part I of the Saskatchewan uranium miners' cohort study. Prepared for: Canadian Nuclear Safety Commission. RSP-0205

SENES Consultants Ltd., 2003. R178.5 Feasibility study: Saskatchewan uranium miners cohort study (Part II). Prepared for: Canadian Nuclear Safety Commission. RSP-0178

Canadian Nuclear Safety Commission, 2009. Understanding health studies and risk assessments conducted in the Port Hope community from the 1950s to the present. INFO-0781

Canadian Nuclear Safety Commission, 2006. Ontario uranium miner update study protocol. RSP-0213

Marrett LD and Nahm S-M, 2001. Ontario miners database feasibility study. Prepared for: Canadian Nuclear Safety Commission. RSP-0149

Westland, 2004. Summary report of the Eldorado nuclear cohort study. Prepared for: Canadian Nuclear Safety Commission. RSP-0188

J. R. McLaughlin, T. W. Anderson, E. A. Clarke and W. King. 1992. Occupational exposure of fathers to ionizing radiation and the risk of leukemia in offspring - a case-control study. Final Report. AECB Report INFO-0424. Atomic Energy Control Board, Ottawa, Canada.

Health Canada. 2000. Cancer Incidence in Port Hope 1971-1996. Final Report. CNSC Report INFO-0716. Canadian Nuclear Safety Commission, Ottawa, Canada.

Health Canada. 2002. Cancer and General Mortality in Port Hope, 1956-1997. Final Report. CNSC Report INFO-0734. Canadian Nuclear Safety Commission, Ottawa, Canada.

- E. A. Clarke, J. McLaughlin, and T. W. Anderson. 1989. Childhood Leukemia Around Canadian Nuclear Facilities Phase I. Final Report. AECB Report INFO-0300.1. Atomic Energy Control Board. Ottawa, Canada.
- E. A. Clarke, J. McLaughlin and T. W. Anderson. 1991. Childhood Leukemia around Canadian Nuclear Facilities Phase II. Final Report. AECB Report INFO-0300.2. Atomic Energy Control Board. Ottawa, Canada.

Published literature:

Lane RS, Frost SE, Howe GR, and Zablotska LB, 2010. Mortality (1950-1999) and cancer incidence (1969-1999) in the cohort of Eldorado uranium workers. *Radiation Research* 174(6): 773-85.

Lane R, Thompson P, Ilin M, Phaneuf M, Burtt J, and Reinhardt P, 2011. Use of a Weight of Evidence Approach to Determine the Likelihood of Adverse Effects on Human Health from the Presence of Uranium Facilities in Port Hope, Ontario. *Journal of Environmental Protection* 2(9): 1149-1161

Eidemüller M, Jacob P, Lane RSD, Frost SE, and Zablotska LB, 2012. Lung Cancer Mortality (1950–1999) among Eldorado Uranium Workers: A Comparison of Models of Carcinogenesis and Empirical Excess Risk Models. *PLoS One* 7(8): e41431

Important Resources:

Canadian Nuclear Safety Commission, 2011. Setting Radiation Requirements on the Basis of Sound Science: The role of Epidemiology. INFO-0812

Soon to be published:

Jing Chen,*, Deborah Moir, Rachel Lane, Patsy Thompson. An Ecological Study of Cancer Incidence in Port Hope, Ontario from 1992 to 2007. *Journal of Radiological Protection*

b.c.c.:

T. Jamieson

R. Jammal