

October 24, 2013

Dr. Paul Demers
Chair, Royal Society of Canada's Expert Panel Reviewing Safety Code 6
Royal Society of Canada
Walter House
282 Somerset West
Ottawa, ON
K2P 0J6

Dear Dr. Demers:

Unfortunately I am unable to attend the Panel Review in person, so would like to provide comments in writing as to why I find the Canadian Safety Code 6 to be inadequate for the protection of the health of the citizen of Canada.

The central issue is that Safety Code 6 is based entirely on the assumption that there are no adverse health effects of radiofrequency radiation other than at intensities that result in tissue heating. This assumption is not correct and is not justified. It is clear that Health Canada scientists completely ignored any study that found evidence of non-thermal health effects, based solely on the fallacious assumption that non-thermal effects cannot exist. This is unscientific and unreasonable, verging on being unethical, particularly from a government agency that has responsibility for protection of the health of the public. It ignores an enormous body of high quality scientific investigation that clearly demonstrates elevations in brain cancer upon long-term use of cell phones and other effects in human, animal and cellular studies. It ignores the evidence (Volkow et al., 2011) showing increased glucose utilization in various brain areas as a result of cell phone radiofrequency radiation and monitored by PET scans. These results were reported by a senior investigator who is director of one of the institutes of the NIH, certainly not a person who has an axe to grind on this issue. Along with many other investigations this study provides absolute proof that radiofrequency radiation, at levels that do not cause measurable tissue heating coming from cell phones like those we all use, results in alternation in the physiological functioning of the brain. Thus the fundamental assumption behind the Safety Code 6 is false.

Safety Code 6 also ignores two other important considerations. The Safety Code is based entirely on acute radiofrequency exposure, whereas in reality exposures are continuous but varying and are chronic. In addition it takes no consideration of vulnerable populations, especially children, who have already been shown to be at greater risk of development of brain cancer from cell phone use (Hardell et al., 2004). It also does not consider that segment of the population that is electrosensitive.

I do not disagree that there remain unresolved issues concerning the exact mechanisms whereby radiofrequency fields cause cancer and a host of other actions. However these uncertainties do not invalidate the observation that excessive radiofrequency exposure to humans at intensities that do not cause measurable tissue heating increases risk of cancer. A government has the responsibility to prevent disease of its citizens and this Safety Code 6 fails to do. These guidelines have not been changed for almost 15 years and do not consider the large body of information that has appeared since that time.

I urge the Panel to apply the Precautionary Principle to this issue. We have strong evidence for a variety of adverse health impacts resulting from excessive exposure to radiofrequency radiation in humans, and reason to suspect that because of the difficulties in doing a complete assessment of exposure the actual risk of cancer and other diseases may be even greater than current research indicates. It is true that we do not have a definitive understanding of the mechanisms responsible, although we do know a variety of effects of radiofrequency radiation that might lead to cancer and other diseases. It is also true that most animal studies have not shown cancer to result from exposure to radiofrequency radiation. However neither of these concerns obviates the fact that we have strong evidence that humans are being harmed by excessive radiofrequency exposures, and also that children are more vulnerable than adults. These facts demand responses by government that will protect all citizens, especially those most vulnerable.

Thank you for the opportunity to comment on Safety Code 6.

Yours sincerely,

A handwritten signature in blue ink that reads "David O. Carpenter". The signature is fluid and cursive, with the first name "David" being the most prominent.

David O. Carpenter, M.D.
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