

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Additional Estimates Hearing 2007-08
11 March 2008

AGENCY/DEPARTMENT: INNOVATION, INDUSTRY, SCIENCE AND RESEARCH

TOPIC: Gunns Limited's pulp mill

REFERENCE: Written Question

QUESTION No. AI-21

Senator The Hon. Eric Abetz asked:

Could the Chief Scientist please advise what the acceptable level or safe level of dioxins is for drinking water in the United States of America.

ANSWER

The US Environmental Protection Agency (EPA) has established a maximum contaminant level goal (MCLG), which is an aspirational goal, and a maximum concentration limit (MCL) for dioxin in drinking water. An MCLG indicates the ideal level of protection that can be provided against any adverse health effects that may be experienced after exposure to a given contaminant through drinking water. The EPA determines a level for each contaminant, which is considered an "acceptable level of risk" for all members of the population.

Unlike the MCLG, the MCL is an enforceable regulation that the EPA considers practically and feasibly attainable. For carcinogenic contaminants, however, the EPA realizes that it is most likely impossible to completely eliminate the contaminant and does not set an MCL at "zero". Rather, the EPA sets a level that can be attained, given available technology and resources. The level usually falls into the excess cancer risk range of 1 in 10,000 (10^{-4}) to 1 in 1,000,000 (10^{-6}). For dioxins, the MCLG is zero mg/L, the MCL is 3×10^{-8} mg/L. The Drinking water levels which are considered "safe" for short-term exposures: For a 10-kg (22 lb.) child consuming 1 litre of water per day, a one-day exposure of 1×10^{-6} mg/L or a ten-day exposure to 1×10^{-7} mg/L.