

CE 37200: Environmental Impact Assessment

Homework 5

Chapter 6

Due: Apr. 8

1) Using the EPA risk models, derive the acceptable limit for the concentration of chloroform in drinking water. Consider both cancer and noncancer health risks.

2) (a) Find the methylmercury ($[\text{CH}_3\text{Hg}]^+$) concentration in fish at which regular consumption at 50 g / day becomes an unacceptable health risk. Use the EPA reference dose for methylmercury of 0.0001 mg/kg-day.
(b) If the bioaccumulation factor of methylmercury in tuna is 10^6 , what would you consider the maximum safe concentration of methylmercury in ocean water, in M?