From:	Loehr, Lincoln C.	Sent:	Fri 12/17/2010 2:59 PM
To:	Conklin, Becca (ECY)		
Cc:			
Subject:	Comments re triennial review		

The following comment addresses human health criteria and fish consumption rates.

Ecology is considering using a higher fish consumption rate in the calculation of the human health surface water quality criteria. The currently applicable human health criteria are established for Washington State in the National Toxics Rule at 40 CFR 131.36, and are based on the assumed fish consumption rate of 6.5 grams per person per day. Oregon is considering changes based on 175 grams per person per day, which can greatly lower the criteria.

In addition to the fish consumption rate, there is also a risk level that enters the computation. For many parameters, the more stringent standards resulting from a significant increase in fish consumption rate will still not pose compliance problems because the criteria values will still be larger than background levels and human inputs are slight. But there are some, such as PCBs which will be quite problematic.

If Ecology chooses to revise the criteria to reflect a higher fish consumption rate such as Oregon is considering, then Ecology should also revise the risk level from a hypothetical one in a million (10^{-6}) additional lifetime cancer rate to a hypothetical one in 100,000 (10^{-5}) additional lifetime cancer rate. EPA recognizes that states may use a 10^{-5} risk level. Alaska's standards are based on a 10^{-5} risk level and are approved by EPA.

High fish consuming groups may object to an apparent lesser degree of protection, but the reality is that regardless of what consumption rate and risk level is used to set a human health criteria, those who consume less will have a lower risk (from fish consumption) than those who consume more. Since fish consumption rates vary, it is not possible to protect all consumers to the same risk level. Similarly, those who consume more fish will have a higher benefit from fish consumption than those who consume less.

The concept of risk level needs to be put in context. One rationale for an adjustment to the risk level along with an adjustment to the fish consumption rate is that as the fish consumption rate rises, the number of consumers in that range falls. As an example, if the number of consumers at or greater than 175 grams per person per day numbers 10,000, and a 10^{-6} risk level is used, then the associated risk would be one additional cancer per 100 generations. For something like PCBs which are no longer produced and are decreasing in the environment, it makes no sense to set overly stringent criteria that in turn force extreme heroics by dischargers for such a low real risk. In the hypothetical example, even use of a 10^{-5} risk level equates to one additional cancer per 10 generations which is also overly protective for substances such as PCBs that are no longer produced.

Society is facing severe economic impacts, many are unemployed or under employed, government's tax base is diminished, and many important and essential public health services are being reduced. In this economic climate especially, Ecology needs to be careful to avoid actions that impose substantial costs on society to address very small risks. Such costs will force significant and harmful tradeoffs affecting human well-being.

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