

Text of Samuel Yamin (MCEA) testimony at PCA Board mtg. on 04/24/07

MCEA supports the PCA staff recommendation to classify PFOA and PFOS as hazardous substances. Scientific data demonstrate that these two closely related compounds meet the criteria for listing hazardous waste contained in federal regulation.¹

When PFOA and PFOS are released to the environment, they represent a significant risk to human health. There is a large and growing body of scientific literature reporting that these chemicals cause serious health effects. Toxicological studies have found that PFOA causes liver cancer^{2,3} and testicular cancer,^{2,4} and may cause other types of cancer, such as breast cancer.^{5,6} In 2006, a U.S. EPA Scientific Advisory Panel recommended that PFOA should be classified as “likely to be carcinogenic to humans”, in other words, a probable human carcinogen.⁶

Toxicological studies have also shown that PFOA and PFOS cause a variety of other adverse health impacts, including:

- Birth defects,²
- Weakening the immune system,² and
- Altered hormone system function, also known as endocrine disruption.⁷

Recently published studies have also shown that these chemicals travel through breast milk, increasing infants’ exposures and risk for developmental disorders.^{2,8}

Federal regulations also require U.S.EPA to consider the persistence of chemicals in the environment when listing hazardous wastes.¹ If a pollutant rapidly degrades into a less harmful byproduct, the risks are often less serious. Unfortunately, that will not happen in this scenario. PFOA and PFOS are among the most persistent chemicals ever created.^{9,10} They do not break down by any known environmental process,¹⁰ so these pollutants will be with us for thousands of years. In addition, when some of the other PFCs break down in the environment, they become PFOA or PFOS, but the degradation process stops there.¹⁰

PFCs have become widespread in the environment.¹¹ CDC researchers published a study of PFC levels in the bodies of the U.S. population, and detected PFOA and PFOS in blood samples from every one of the 1,500 people they tested.¹² PFCs are also found in wildlife all over the planet.^{11,13,14} PFOS, in particular, has shown a high tendency to bioaccumulate.^{11,13,14} The likelihood of a chemical to appear in higher concentrations in bodies of animals higher on the food chain is another factor specified in federal regulations on classifying chemicals as hazardous wastes.¹ PFOS bioaccumulates in fish, which represents a threat not only to the fish, but to birds and other animals that eat the fish.^{11,13,14} PFOS bioaccumulation in fish also is a

significant health risk for humans who consume fish. This is reflected in the recent MDH fish consumption advisories specifically targeting PFOS.¹⁵

Federal regulations require agencies to consider the concentration of a chemical in the waste stream, and the potential for the chemical to migrate from the waste stream to the environment, if not sufficiently contained or otherwise managed.¹ It is well-known by now that PFOS, PFOA, and other PFCs have shown a high tendency to migrate from landfills, through soils, and into groundwater.¹⁶ At the disposal sites under consideration today, groundwater concentrations of PFOA and PFOS are thousands of times higher than human health guideline levels. As PCA staff have reported, at the Oakdale disposal site, the reported groundwater concentration of PFOA was as high as 23,700 ppb, and the concentration of PFOS was as high as 3,342 ppb.¹⁷

MCEA supports the PCA staff recommendation to classify PFOA and PFOS as hazardous substances. MCEA's position is based on the large and growing body of peer-reviewed, published, scientific literature showing that PFOA and PFOS are significant hazards to human health and wildlife, and that those chemicals are extremely persistent and widespread in the environment.

References:

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