

Tobacco

The Problem

Tobacco Product Waste (TPW) is the number 1 most littered product worldwide with an estimated 4.5 trillion cigarette butts entering the environment each year (Litter Free Planet, 2009). TPW includes cigarettes, cigars, cigarillos, and electronic smoking devices and components. When TPW is discarded in the environment, it leaches thousands of chemicals, including 50 different carcinogenic chemicals (Puls, 2011).

Costs of Tobacco Product Waste

TPW endangers children as the American Association of Poison Control Centers reported about 12,600 cases of children ingesting cigarettes or cigarette butts from 2006 to 2008 (Novotny, 2011). The California Department of Transportation estimates that it costs \$41 million annually to clean up cigarettes on roadways. In 2009, the City of San Francisco spent nearly \$10 million on cigarette butt cleanup alone. In March 2019, the Alameda County downtown streets team audited a 2 mile strip which is already cleaned 3 times per week and still found over 1,000 cigarette butts.

The Product

TPW is known to contain chemicals harmful to the environment, including pesticides, herbicides insecticides fungicides, and rodenticides. Scientific evidence reveals that hazardous materials such as acetate/rayon, pesticides, heavy metals, nicotine, ethyl phenol for flavoring, adhesives, and other additives found acutely toxic to aquatic tested at various exposures (Novotny, 2014; WHO, 2017). Researchers Song et. Al (2017) found that 3284 citations and internal tobacco documents strongly suggest that acetate filter ventilation has contributed to the rising lung adenocarcinomas because they:

1. Alter tobacco combustion, increasing smoke toxicants;
2. Allow for elasticity of use so that smokers inhale more smoke to maintain their nicotine intake; and
3. Cause a false perception of lower health risk from “lighter” smoke.

In addition to the nicotine, acetate, and adhesives added to the tobacco product during manufacturing processes. Several studies have shown chemicals that leach from cigarette butts can be acutely toxic to aquatic organisms and the surrounding ecosystem (Novotny, 2014).

Another rising tobacco product are electronic smoking devices, including, but not limited to, an e-cigarette, e-cigar, e-pipe, vape pen, or e-hookah. Electronic smoking devices pose an additional human health risk as explosions have been documented during use and disposal of the devices, some resulting in death (Molina, 2019). From 2015 to 2017, there were an estimated 2035 e-cigarette explosion and burn injuries presenting to US hospital emergency departments (Rossheim, 2018).

Many electronic smoking devices use lithium ion batteries to power the device. The lithium-ion batteries power phones, laptops and power tools are fires waiting to happen. Proper management

of discarded batteries has always been important to conserve resources and avoid toxic contamination, but now improper disposal of lithium batteries is causing fires. Read more about batteries and battery-caused fires here: {Link CPSC Battery Page}

The Solution

Advocacy groups ask that producers be responsible to fund, operate, and promote a convenient collection and management program for their products at end-of-life. This is especially important for hard-to-manage products, including ones that pose human health impacts. Tobacco products are included in “hard-to-manage” products.

We ask producers to take their fair share of responsibility for these hard-to-manage products, as local governments alone cannot handle the cost burden of toxic tobacco waste.

Research & Relevant Articles

- [Producer Responsibility Policy Options for Tobacco Waste](#) - California Product Stewardship Council, White paper funded by the California Department of Public Health, Tobacco Control Program, June 2019
- [Cigarette Waste: New Solutions for the World’s Most-littered Trash](#) – The Revelator, 6/23/19
- [Vape Pods Are The New Cigarette Butts, For Colorado, That's a Whole New Trash Problem](#) – CO Public Radio, 5/16/19
- [Cigarette Filters are the No. 1 Plastic Pollutant... and Don't Prevent Cancer](#) – CNN, 1/24/19
- European Parliament (October 24, 2018). Plastic Oceans: MEPs back EU ban on throwaway plastics by 2021. Plenary Session Press Release. Accessed at: <http://www.europarl.europa.eu/news/en/press-room/20181018IPR16524/plastic-oceans-meps-back-eu-ban-on-throwaway-plastics-by-2021>



Pictured below:

Submissions to CDPH Photo Contest 2019 showing TPW in waterways;

Cigarette waste littered on playground;

Electronic smoking device waste collected at one high school in California

