



December 8, 2020

Ken Zarker
Section Manager
Washington State Department of Ecology (Ecology)
300 Desmond Drive SE
Lacey, WA 98503
kzar461@ECY.WA.GOV

RE: ACA Comments on the Regulatory Process for Paints and Coatings under the Washington State Safer Products

Dear Ken:

As a follow-up to our November 5, 2020 call, the American Coatings Association (ACA)¹ submits the following information on the paint and coatings industry and ACA's preliminary comments and concerns regarding the inclusion of paints and coatings in the Safer Products program. It is our understanding that Ecology plans to continue to work with potentially affected stakeholders over the next 6-9 months as you finalize your next report to the Legislature. We look forward to additional opportunities to participate in this process to ensure that inadvertent polychlorinated biphenyls (iPCBs) that may be found in some pigments and colorants are regulated appropriately to maintain optimum consumer choices while being protective of the environment.

I have summarized below the key points that we made during our November 5 call and the letter provides further details on each topic:

- The scope of the final iPCBs regulations for the paint and coatings industry is too broad and should not include Original Equipment Manufacturer (OEM) or special purpose coatings as they are not consumer products.
- Ecology should focus on children's artist paint and yellow road marking paint.
- Architectural "paints" likely best fit the term "consumer products", however the soon to be implemented PaintCare program will assure that leftover architectural paints will be collected and properly recycled and managed in Washington State.

¹ The American Coatings Association (ACA) is a voluntary, nonprofit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate and ally for members on legislative, regulatory, and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional development services.

- It is important to recognize that pigments, colorants and paints are very different products and will have much different iPCB levels.
- There may be some alternatives to diarylide yellow pigments, but there do not appear to be any alternatives for phthalocyanines (blues and greens) or titanium dioxide.
- ACA is concerned with the cost, quantification level and background contamination issues associated with PCB test method 1668c.
- The paint and coatings industry and its supply chain would need approximately 6 years to make the necessary changes should Ecology ban certain pigments.
- Ecology must also account for any reformulation, retesting, and recertification costs associated with alternative yellows as well as any collateral costs associated with changing color systems, marketing materials, and stranded products (that can't be sold).

Safer Products Program's Potential Scope for Pigments, Colorants and Paints and Coatings

Pigments, Colorants and Coatings

ACA is concerned that Ecology, as well as several of the referenced papers, do not differentiate between pigments, colorants and paints/coatings. Pigments and colorants are not considered "consumer products" and some paints and coatings are not consumer products. Colorants are a diluted form of pigments that are added to paints and coatings – usually a couple ounces per gallon of paint/coating, depending on the color. If pigments contained iPCBs, the concentration would be diluted in the colorant, and diluted even further in the paint/coating.

US Coatings Market

The U.S. paints and coatings market is divided into architectural, OEM/factory-applied coatings, and special purpose coatings.

Ecology included the following coatings market analysis in the Ecology Report to the Legislature:

“Approximately 30 million gallons of paint and coatings are used in Washington per year. The American Coatings Association reported 2017 production of paints and coatings at 1.28 billion gallons in the U.S., while other sources reported 1.5 billion gallons in 2016 and a projected 1.4 billion gallons in 2020 (EPA, Freedomia Group, 2017; Pilcher, 2018; Wells, 2017). Taking Publication 20-04-019 33 July 2020 Washington’s share of the U.S. population would give around 30 million gallons of paints in all of these cases, however, not all paints and coatings contain iPCBs.”

Using the same reference (Pilcher 2018), 62% of the 30 million gallons are Architectural, 30% Original Equipment Manufacturing (OEM)/Factory Applied Coatings and 8% Special Purpose coatings (includes – Industrial Maintenance Coatings, traffic marking, automotive refinish, and Marine coatings).

One area for Ecology to focus its' scope could be paint products targeted at children such as children's artist paint, sidewalk paint and finger paints – especially since children likely have direct contact with these products and sidewalk paints would likely wash off sidewalks and end up in local waterways. ACA also recommends that Ecology consider yellow road marking paints in the scope since it appears that there are already alternative low iPCB yellow marking paint products being used in portions of Washington State.

ACA proposes that Ecology not include OEM/factory-applied coatings or special purpose coatings (with the exception of yellow traffic marking coatings) for the following reasons:

- OEM/factory-applied coatings (planes, autos, trains for example) and special purpose industrial maintenance, auto-refinish, and marine coatings are highly specialized protective coatings that have undergone extensive testing and certifications. Any change to the pigments used in these sectors could result in impacts to the coatings performance/durability and would require extensive reformulation, retesting, and recertification – resulting in tremendous financial impact to coatings manufacturing; coatings application; coatings end users; and the public. ACA is also concerned that pigment changes in aircraft, train, and motorized vehicles could impact the safety of these products. We believe that the Washington Legislature understood these concerns since the legislation exempts aircraft regulated by the Federal Aviation Administration and the Department of Defense as well as motorized vehicles.
- OEM/factory-applied coatings, and auto-refinish coatings are applied in well permitted and controlled operations that typically have air, water and waste permits. Coating emissions and wastes are properly managed to prevent them from entering the environment. Workers at these facilities are also well protected under federal and state OSHA regulations that require engineering controls and personal protective equipment (PPE).
- OEM/factory-applied coatings, and special purpose coatings are not typically purchased by consumers and therefore, should not be considered consumer products for purposes of the Safer Products program.

Removing OEM/factory-applied and special purpose coatings leaves the Architectural sector of the coatings industry. Architectural Coatings represent 62% of the 30 million gallons of paints and coatings sold in the State of Washington. 88% of the Architectural Coatings (or 55% of the coatings sold in the State of Washington) include retail/consumer interior and exterior wall paints. Much of the remaining 12% of the architectural coatings are mainly clear or semitransparent paints and coatings that contain no pigments. Retail/consumer interior and exterior wall paints likely best fits the term “consumer products”. RCW [70A.350.010](#) defines “Consumer product” as any item, including any component parts and packaging, sold for residential or commercial use. However, the Safer Products law also includes the term “commercial” and ACA offers that “commercial” products are products that can be bought by or are intended to be bought by the general public and thus, they exclude industrial or professional activities.

As Ecology determines the appropriate regulatory actions for iPCBs in paints and coatings, ACA believes it is important to take into account whether or not there is a pathway for paints potentially containing iPCBs to enter the environment. Proper disposal of consumer paints and coatings is an

important focus of the industry and the state of Washington has already passed a paint stewardship program. PaintCare (www.paintcare.org) is scheduled to be launched in Washington in the Spring of 2021 and will help to ensure leftover retail/consumer interior and exterior wall paints are collected and properly managed. Without a PaintCare program, the best options for consumers to recycle or dispose of leftover paint are government-run household hazardous waste (HHW) facilities and one-day “round-up” events. However, these programs offer limited days and hours, are often located in remote areas, and most do not serve painting contractors and other businesses. In the nine states with PaintCare programs, additional paint drop-off locations have been established to increase convenience and provide service to all paint users. Most locations are paint retailers, which are convenient locations open year-round and seven days a week. Across the nine PaintCare states, there are more than 1,750 drop-off sites, 77% of which are paint retailers. In the ten years that PaintCare has existed, over 38 million gallons of paint has been collected and managed by the program.

Alternatives

ACA suggests the following language from the Ecology Report to the Legislature, as well as cited reports (including reports identified in Table 6), generally indicate that iPCB levels in colorants are higher than coatings and that higher iPCB content is likely the result of diarylide yellows and phthalocyanines blues and greens. In addition, the range in yellow concentrations indicates that possible yellow alternatives may exist, however alternatives do not exist for greens and blues.

Titanium dioxide is a critical and essential ingredient in paints and coatings and there are currently no alternatives. Testing results in the Ecology report suggests that iPCB levels in titanium dioxide are much lower than diarylide yellows and phthalocyanines blues and greens. The titanium dioxide industry is currently conducting product testing to determine the average concentration of iPCBs in titanium dioxide used in paints and coatings. We respectfully recommend we wait to have further discussions on titanium dioxide until the industry testing is complete.

The Ecology Report to the Legislature mentions:

“Pigments and other compounds can become contaminated with PCBs because of non-specific chlorination processes in many reactions where carbon, chlorine, and heat are involved. Pigments affected include diarylide yellows, phthalocyanines [blues and greens] and titanium dioxide.”

In addition, the last paragraph of the ink and coatings section of the Ecology Report to the Legislature mentions the following:

“Product testing has shown that paints and printed material with a wide variety of colors do not contain detectable levels of PCBs, indicating that low PCB products are available (Ecology, 2014b, in process of data validation; Ecology & Health, 2015).”

The 2014b Ecology Polychlorinated Biphenyls (PCBs) in General Consumer Products testing report mentions:

“Therefore, if PCB-11 is found, its presence is most likely due to diarylide yellow pigment that contains PCB-11 as a contaminant”

“For example, Ecology (2014c) found high levels of PCB-209 in the pigment phthalocyanine green”

The Ecology Report to the Legislature also refers to the Northwest Green Chemistry report entitled *Pigments and inadvertent polychlorinated biphenyls (iPCBs): Advancing no and low iPCB pigments for newsprint, and paper and paperboard packaging*” (Nestler, Heine, & Montgomery, 2019). Two key findings from the Northwest Green Chemistry report include:

“Some [yellow] monoazo pigments have been proposed as alternatives to the diarylides currently dominating the printing ink industry, including P.Y.s 1, 3, 74, and 65. Monoazo pigments tend to have less color strength than diarylide yellows, and are suitable in a fewer number of solvents.”

*“Avoiding iPCB formation in the synthesis of blue and green pigments. **No alternative pigments suitable for printing ink are known**” [emphasis added].*

Testing

Given the expense (\$800 - \$1,000 per test) and extremely low quantification level (part per trillion) of test method 1688c – ACA is very concerned that Ecology could require this method in any future Safer Product paint and coatings regulations. ACA recommends any possible verification testing be done on pigments, and not colorants or paints, since this would substantially limit the burden of testing on the coatings industry.

ACA is also concerned with background laboratory contamination issues with method 1668c. For example, in the *2014b Ecology Polychlorinated Biphenyls (PCBs) in General Consumer Products testing report*:

“Twenty-two method blanks were run during analysis of the additional 142 samples. Detectable levels of PCB congeners were found in all twenty-two method blanks. PCB presence in most the method blanks is due to background laboratory levels, which are likely from low-level contamination from background sampling preparation. PCB-11 was found in the method blanks at an average of 0.04 ppb.”

Given the cost burden and background laboratory contamination issues, ACA proposes that Ecology use other EPA test methods with higher quantification levels and include the higher HP and Apple policy levels mentioned in the Legislative Report:

“Some organizations, including HP® and Apple®, have policies in place prohibiting the purchase of ingredients (including paints and inks) with PCBs over 0.1 ppm (Heine & Trebilcock, 2018).”

Necessary Compliance Timeframe

ACA requests that Ecology allow for appropriate compliance timelines for any final regulatory requirements related to pigments, colorants and/or paints and coatings. Not only does the supply chain require time to find and test alternatives as further described below, the cost to both paint and coatings manufacturers and to consumers is in the millions of dollars for each paint and coatings manufacturer.

If a certain pigment is restricted, then there is a cascade impact on the supply chain. Pigment manufacturers would need at least 2 years to reformulate their products and colorant manufacturers would then need at least an additional 2 years to reformulate their products based on the new pigments. Finally, paints and coatings manufacturers would need at least 2 years to reformulate, retest, and recertify their products. In addition, paints and coatings manufacturers must change out marketing and collateral materials used in retail operations and retailers need time to sell-through existing compliant product. This sell-through clause for anything manufactured prior to an effective regulation compliance date is necessary to avoid the risk of disposal of significant amounts of household hazardous waste.

In summary, the paints and coatings industry would need at least 6 years for the supply chain to be compliant with any new restrictions under the Safer Product Program.

Conclusion

Thank you for your willingness to work with ACA on behalf of our members as you proceed through the regulatory process. We appreciate your consideration of our comments and concerns, and look forward to speaking with you further in January 2021. In the meantime, please do not hesitate to contact us if you have any questions.

Sincerely,

/s/

David Darling
Vice President, Health, Safety and Environmental Affairs