CHILDREN'S ENVIRONMENTAL HEALTH &

PROTECTION ADVISORY COUNCIL

March 27, 2019

The Honorable Kumar P. Barve
Chair, Environment and Transportation
House Office Building, Room 251
Annapolis, MD 21401

The Honorable Paul G. Pinsky
Chair, Education, Health, and Environmental Affairs
Miller Senate Office Building, 2 West
Annapolis, MD 21401

RE: **SUPPORT House Bill 275 / Senate Bill 270** *Pesticides – Use of Chlorpyrifos – Prohibition*

Dear Chair Barve and Chair Pinsky;

The Children's Environmental Health & Protection Advisory Council (CEHPAC) respectfully submits this letter in **SUPPORT** of **House Bill 275 / Senate Bill 270** *Pesticides – Use of Chlorpyrifos – Prohibition.* These bills would prohibit the use of chlorpyrifos in the State effective October 1, 2019.

"Impaired neurobehavioral development of children has been significantly linked in epidemiological studies with exposure to pesticides."[1] Prior to Maryland adopting regulations pertaining to the **Integrated Pest Management (IPM) and Notification of Pesticide Use in a Public School (MDA 15.05.02)** in 1997, chlorpyrifos was sprayed extensively throughout many of our public school buildings. The impact to students and staff from exposure to chlorpyrifos (also known as DURSBAN) was a significant factor in the decision to eliminate the routine application of pesticides (including chlorpyrifos) in our schools. As a direct result of Maryland's School IPM Regulations, this chemical is no longer used in schools in Maryland. CEHPAC notes that in 2000, EPA eliminated most approved homeowner uses in the US.

CEHPAC believes it is prudent to eliminate this product from other uses in the state as well, including agriculture. There is a wealth of science demonstrating adverse health effects of chlorpyrifos exposure to developing fetuses, infants, children and pregnant women.[2],[3,4] According to the Centers for Disease Control and Prevention: "Results from animal studies suggest that chlorpyrifos more easily penetrates the skin of young animals, compared to adults. Children also have a decreased metabolic capacity to eliminate toxicants and are more susceptible to central nervous system toxicants, thus lowering the exposure levels considered protective against the potential toxicity of chlorpyrifos in that population. Chlorpyrifos may also be developmentally toxic. Studies of pregnant rats suggest that low levels of chlorpyrifos exposure during gestation have the potential to increase offspring mortality, reduce birth weight, and alter offspring behavior.""

Exposure to organophosphate pesticides in general has been increasingly associated with changes in children's cognitive, behavioral and motor performance[5]. "Evidence of neurological deficits associated with exposure to OP pesticides [organophosphate pesticides] in children is growing. The studies reviewed collectively support the hypothesis that exposure to OP pesticides induces neurotoxic effects.[6]"

CEHPAC acknowledges that the US Environmental Protection Agency [EPA] is unable to conclude that the risk from aggregate exposure from the use of chlorpyrifos meets the safety standard of section 408(b)(2) of the Federal Food, Drug, and Cosmetic Act (FFDCA). While the 2015 EPA proposal to revoke all tolerances for chlorpyrifos has not been implemented, the Council urges Maryland to act promptly and firmly especially in light of the EPA's inability to take action to protect children from this known hazard. CEHPAC supports the proposed Maryland legislation to the extent that it promotes positive health and environmental outcomes.

As defined in statute (Md. Code Ann., Health-General §§ 13-1501 thru 1506), CEHPAC seeks to ensure that the rules, regulations, and standards adequately protect the health of children from environmental hazards. CEHPAC's goal is to enable children in Maryland to grow up in a safe and healthy environment. Our duties include:

- ✓ provide input to the General Assembly on legislation that may impact environmental hazards that affect the health of children;
- ✓ recommend uniform guidelines for State agencies to follow to help reduce and eliminate children's exposure to environmental hazards; and
- ✓ educate others regarding the environmental hazards that impact children's health, the means to avoid those hazards and provide any other relevant information that will assist in protecting children health.

In establishing CEHPAC, the Maryland General Assembly clearly identified children's environmental health as a priority for the State. HB 275/SB 270 address many of our concerns regarding the impact to children and their environment from exposure to chlorpyrifos, which can and does affect children's health and their environment. CEHPAC has increasingly seen the need to advocate for basic protections for children from hazardous chemicals, specifically those that are persistent, bio-accumulate, impact water and food, and which are toxic. HB 275/SB 270 is a means of ensuring that children will no longer encounter this product.

CEHPAC urges the legislature to eliminate the use of chlorpyrifos in Maryland. CEHPAC looks forward to working with the General Assembly on this and other issues, and thanks you for your leadership on this issue. Please note that the opinions of the Council expressed in this letter do not necessarily reflect that of the Department of Health or any other State agency.

Sincerely,

Megan Weil Latshaw, PhD MHS
On Behalf of the Children's Environmental Health and Protection Advisory Council

[1] Timofeeva, Olga A.; Levin, Edward D. (2010). "Lasting Behavioral Consequences of Organophosphate Pesticide Exposure During Development" (http://www.sciencedirect.com/science/article/pii/B9780123743671000331). In R. Krieger (ed.). *Hayes' Handbook of Pesticide Toxicology (Third Edition)*. New York: Academic Press. pp. 837–846. ISBN 978-0-12-374367-1 accessed 180208

[2] Agency for Toxic Substances and Disease Registry (September 1997). Toxicological Profile for Chlorpyrifos, Chapter 2: Health Effects. (https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=495&tid=88) accessed 190328

[3] Flaskos, J. (2012-02-25). "The developmental neurotoxicity of organophosphorus insecticides: A direct role for the oxon metabolites" (https://www.ncbi.nlm.nih.gov/pubmed/22155227). accessed 180208

[4] Timofeeva, Olga A.; Levin, Edward D. (2010). "Lasting Behavioral Consequences of Organophosphate Pesticide Exposure During Development" (http://www.sciencedirect.com/science/article/pii/B9780123743671000331). In R. Krieger (ed.). *Hayes' Handbook of Pesticide Toxicology (Third Edition)*. New York: Academic Press. pp. 837–846. ISBN 978-0-12-374367-1 accessed 180208

[5] Muñoz-Quezada, Maria Teresa; Lucero, Boris A.; Barr, Dana B.; Steenland, Kyle; Levy, Karen; Ryan, P. Barry; Iglesias, Veronica; Alvarado, Sergio; Concha, Carlos; Rojas, Evelyn; Vega, Catalina (December 2013). "Neurodevelopmental effects in children associated with exposure to organophosphate pesticides: A systematic review" (https://www.ncbi.nlm.nih.gov/pubmed/24121005). Accessed 180208

[6] Flaskos, J. (2012-02-25). "The developmental neurotoxicity of organophosphorus insecticides: A direct role for the oxon metabolites" (https://www.ncbi.nlm.nih.gov/pubmed/22155227). accessed 180208