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Group Against Smog and Pollution Inc.

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Comments from Group Against Smog and Pollution on Proposed Rulemaking Environmental Quality Board [25 PA. Code CH. 250] Administration of the Land Recycling Program

Via email
RegComments@pa.gov
04/30/2020

Dear Environmental Quality Board,

Group Against Smog and Pollution (GASP) is a 501 (c)(3) non-profit citizens' group in Southwestern Pennsylvania working for a healthy, sustainable environment. Founded in 1969, GASP has been a diligent watchdog, educator, litigator, and policy-maker on many environmental issues, with a focus on air quality in the Pittsburgh region. We would like to comment on several aspects of this "Proposed Rulemaking, Administration of the Land Recycling Program" (referred to hereafter as Proposed Rule) that implement the PA Land Recycling & Environmental Remediation Standards Act, (Act 2)

Section 250.11 requires the Department "to review **new scientific information** that is used to calculate MSCs (medium specific concentration, formerly state standard) under the State-wide health standard medium-specific concentrations (MSC)." It is also noted in Part D, *Background and Purpose*, "These proposed changes, based on new information, would **protect public health and the environment**."

With such statements as a background, it follows and is appropriate to see the inclusion of changes that would add groundwater and soil MSCs for three compounds in the PFAS family including perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorobutane sulfonate (PFBS).

These chemicals have been of growing concern. EPA has established a PFOA and PFOS health advisory level in drinking water. In EPA studies, a variety of health effects have been observed when exposure to PFOA and PFOS occurs over certain levels.[1] "In addition, EPA plans to begin a separate effort to determine the range of PFAS for which an Integrated Risk Information System (IRIS) assessment is needed." [2]

Lead

However, the same science and health analysis falls short in the decision to raise the lead MSC in the nonresidential direct contact values. "Lead is one of the most commonly found hazards at Superfund sites.[3] "Lead may cause irreversible neurological damage as well as renal disease, cardiovascular effects, and reproductive toxicity.[4] The Occupational Safety and Health Administration (OSHA) notes, "Children born of parents either one of whom were exposed to excess lead levels are more likely to have birth defects, mental retardation, behavioral disorders or die during the first year of childhood."[5] The World Health organization notes that "there is no known 'safe' blood lead concentration." Soil can become airborne on an industrial site through

foot traffic and truck/tractor traffic. Soil dust can then be tracked into a facility by foot or enter open windows and doorways or loading dock areas.

The Proposed Rule notes in Table 4 *A* (*Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil,* ***Direct Contact Numeric Values***) a new lead MSC value raised from **1000 mg/kg to 2500 mg/kg** in the first 2 feet of soil.

Lead MSC calculation

The Proposed Rule indicates the *Adult Lead Method* (ALM) for this MSC calculation. "ALM's target receptor is the potential fetus of a female adult worker."[6] The fetal lead level is then an important target needed to determine the MSC soil value.

"In January 2012, a committee of experts recommended that the CDC change its blood lead level of concern. The recommendation was based on a growing number of scientific studies that show that even low blood lead levels can cause lifelong health effects."[7] That newer level is 5µg/dl.[8]

In a hand out at a Cleanup Standards Scientific Advisory Committee (CSSAC), titled "*Lead Model Comparison*", it was noted that, "The ALM was run using the most current default values set by EPA and target blood lead levels of either 10 µg/dL or 5 µg/dL. EPA's guidance for the ALM cautions that the values calculated using this new model are high and may not be protective of all receptors, i.e. a school or playground that borders a non-residential property. **This is not necessarily in-line with the purpose of the statewide health standard which should be protective across the entire state.**"[9]

These remarks seems to indicate that there are doubts about the ALM. That tests were run for both a 10ug/dL and 5 ug/dL value seem to indicate that there was options about what value should be used in determining the new MSC. For numerous health reasons the 5 µg/dL should be the choice.

Finally in the Proposed Rule, the input parameter for "Target Lead in Fetus" for *Input Values Used in the Adult Lead Model (ALM) or non-residential exposure scenario* is left as **TBD (to be determined).** This leaves uncertainty about this process.

The calculation and elevation in MSC, with present day health information is out of touch with current scientific knowledge. "

This new nonresidential direct contact MSC should be left at least to the former 1000 mg/kg. For many of the health reasons already stated, we applaud the reduced MSC for residential lead direct contact MSC from 500mg/kg to 420mg/kg.

Manganese MSC

In the Proposed Rule at Appendix A. Table 4, the MSC for manganese is raised for residential direct contact from 10,000 mg/kg to 31,000 mg/kg and

In a recent study presented at the *28th International Neurotoxicology Conference* on Manganese, a study was presented titled "Manganese Exposure, Neurodevelopment and Planned Neuroimaging in School-Aged Children." The study took place in areas near Marietta, Cambridge and East Liverpool Ohio in the area of large ferromanganese refinery facilities. The investigation was to answer the question, Does Manganese affect cognitive development of children? The conclusion was that "both low and high manganese concentrations in blood and

hair were negatively associated with child IQ scores and deficits in behavior-based parental assessment of children's cognitive functions. Most of the cleanup at the industrial sites were around dust suppression which was ultimately achieved through an Environmental Protection Agency legal action.[10]

Manganese contaminated soil and dust can be dangerous in residential and nonresidential areas. As noted above the nonresidential can affect the residential. These significant allowable increases do not lead to better health. We urge these increased manganese MSCs to be deleted.

Thank you for the opportunity to make comments,
Suzanne Seppi (GASP Project Manager)

1. Environmental Protection Agency, *FACT SHEET PFOA & PFOS Drinking Water Health Advisories*, November 2016, https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf
2. Ibid
3. Agency for Disease Registry and Toxic Substances, *Environmental Health and Medicine Education, updated 7/2/2019, accessed 4/29/2020*
https://www.atsdr.cdc.gov/csem/csem.asp?csem=34&po=0
4. ibid
5. United States Department of Labor, Occupational Safety and Health,
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=10031&p_table=STANDARDS
6. . *Lead Model Comparison* handout, PADEP February 13, 2019 – Cleanup Standards Scientific Advisory Board Meeting,
https://www.dep.pa.gov/PublicParticipation/AdvisoryCommittees/Cleanup%20and%20Brownfields%20Advisory%20Comm

7. Center for Disease Control, National Center for Environmental Health, *Blood Lead Levels in Children, https://www.cdc.gov/nceh/lead/ACCLPP/Lead_Levels_in_Children_Fact_Sheet.pdf*
8. Ibid
9. February 13, 2019 – PA DEP Cleanup Standards Scientific Advisory Board Meeting, *Lead Model Comparison* handout,
https://www.dep.pa.gov/PublicParticipation/AdvisoryCommittees/Cleanup%20and%20Brownfields%20Advisory%20Comm
10,Erin N. Haynes, Kim M.Cecil, Abstract-*Manganese Exposure, Neurodevelopment and Planned Neuroimaging in School-Aged Children. 28th International Neurotoxicology Conference on Manganese, 09/2016*