



Michigan Department of Environment, Great Lakes, and Energy

Toxics Steering Group

2020 Annual Report

I. INTRODUCTION

The Toxics Steering Group (TSG) is the Michigan Department of Environment, Great Lakes, and Energy's (EGLE) forum for discussion of human health and risk assessment issues related to exposure to environmental contaminants. TSG members are risk assessors, toxicologists, and other related state experts within EGLE, as well as the Department of Health and Human Services (DHHS) and the Department of Agriculture and Rural Development (MDARD).

The TSG meets quarterly, or more if needed, with the goal of using the best available science to address human health and risk assessment issues identified by the TSG or EGLE management. The TSG monitors and evaluates the latest scientific literature and general risk assessment issues and makes recommendations relative to EGLE's environmental programs.

This report summarizes the collaborations and other activities of TSG members during 2020, such as:

- Efforts to address per- and polyfluoroalkyl substances (PFAS) issues;
- Efforts to address hydrogen sulfide (H₂S) issues;
- Obtaining training in various areas of toxicology and risk assessment;
- Participation on environmental justice workgroups.

It also highlights needs and recommendations from the group, including:

- Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening Levels;
- Recommendations for needed staffing;
- Continued needs for training in best available science in toxicology and risk assessment.

II. 2020 TSG MEMBERSHIP

Tim Achee, EGLE	Kay Fritz, MDARD	Mounica Nandula, DHHS
Brandon Armstrong, EGLE	Jennifer Gray, DHHS	Lisa Quiggle, DHHS
Jordan Bailey, DHHS	Kory Groetsch, EGLE	Alexandra Rafalski, DHHS
Sarah Bowman, EGLE	Brian Hughes, EGLE	Geoff Rhodes, EGLE
Aubrey Brewer, DHHS	Rosa Jaimon, DHHS	Divinia Ries, EGLE
Shannon Briggs, EGLE	Sesha Kallakuri, DHHS	Al Taylor, EGLE
Dennis Bush, EGLE	Andrea Keatley, DHHS	Joy Taylor Morgan, EGLE
Jacob Carrick, DHHS	Amber Klase, DHHS	Joost van 't Erve, DHHS
Xun Che, DHHS	Grace Kuan, EGLE	Puneet Vij, DHHS
Ryan Cleary, DHHS	Doreen Lehner, EGLE	Eric Wildfang, EGLE
Aaron Cooch, DHHS	Deb MacKenzie-Taylor, DHHS	Keisha Williams, EGLE (Chair)
Mike Depa, EGLE	Shane Morrison, EGLE	
Bill Farrell, DHHS	Abiy Mussa, DHHS	

III. SUMMARY OF THE TSG WORKGROUP and SUBCOMMITTEE ACTIVITIES IN 2020

a) Vapor Intrusion Workgroup:

Members: Shane Morrison, Chair
 Aubrey Brewer
 Jennifer Gray
 Grace Kuan
 Alex Rafalski
 Divinia Ries
 Keisha Williams

The Workgroup was created to determine if the chronic acceptable air concentrations (AACs) developed by the Remediation and Redevelopment Division (RRD) are appropriate for evaluating indoor air concentrations associated with vapor intrusion and protective of short-term risks. The AACs are used to develop the Part 201 generic cleanup criteria for the inhalation exposure pathways. The AACs were reviewed for a subset of volatile chemicals considered potentially significant to the Volatilization to Indoor Air Pathway (VIAP). The Workgroup’s original report was finalized January 2017 and titled “Volatilization to Indoor Air; Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening Levels.” The report included recommendations for 29 hazardous substances.

In December 2020, the workgroup finalized an update to the [Recommendations for Interim Action Screening Levels \(RIASLs\) and Time-Sensitive Interim Action Screening Levels \(TS RIASLs\)](#) report which now resides as a resource on the TSG webpage. Prior to publishing, the report was shared with stakeholders and department management at EGLE and MDHHS for

consensus. Updates focused on adding RIAs and TS RIAs for hazardous substances with developmental effects and other hazardous substances because of their presence at vapor intrusion sites. Language was added to ensure consistency with previous TSG recommendations for developmental toxicants. Technical corrections were also made to previously established RIAs and TS RIAs. Most revisions corrected inconsistent rounding practices, resulting in slight screening level changes. In some instances, new toxicological information was identified, resulting in significant changes. The updated report includes recommendations for 41 hazardous substances.

b) Three TSG subcommittees were formed in 2020:

- **Brownbag Series (chaired by Eric Wildfang)**

This subcommittee has existed within the TSG before. It provides a platform for experts to present on various topics in toxicology.

- **Subcommittee on Emerging Issues/Newsletter (chaired by Brian Hughes)**

This subcommittee provides a platform for staying updated on various topics in toxicology.

- **Subcommittee on the United States Environmental Protection Agency's (EPA) draft All Ages Lead Model (chaired by Eric Wildfang)**

This subcommittee will review EPA's draft All Ages Lead Model.

IV. COLLABORATIVE ACTIVITIES

- Eric Wildfang and Grace Kuan provided peer review for the Air Quality Division's response to comments that were drafted by Mike Depa on an initial threshold screening level derivation for 6:2 fluorotelomer sulfonic acid (CAS #27619-97-2).
- Kay Fritz, Grace Kuan, Joy Taylor Morgan, and DHHS worked with MPART, including groups like the Animal Health and Food Safety Workgroup, Biosolids Workgroup, PFAS Technical Workgroup, Human Health Workgroup, and Home-Raised Food Sub-workgroup. Work included updating the frequently asked questions document, working with the Interstate Technology and Regulatory Council on a PFAS Working Description, supporting work on a white paper for perfluoroethylcyclohexane sulfonate, and participating on a PFAS discussion panel for the Great Lakes PFAS Summit conference.
- Joost van 't Erve, Jordan Baily, and other DHHS toxicologists worked on the Michigan PFAS Exposure and Health Study, and the North Kent County Exposure Assessment.
- DHHS-Environmental Assessment and Agency for Toxic Substances and Disease Registry (ATSDR) unit is the lead for conducting a Health Assessment in the Kalamazoo area around community odor and environmental justice concerns. The EGLE-Air Quality Division (AQD) Toxics Unit, under consultation to DHHS, is a resource on air toxics emitted from facilities of interest and forwarding any materials pertinent to the investigation. Additionally, both

groups continue to collaborate on air permitting efforts for facilities in the area.

- EGLE and DHHS toxicologists discussed studies and guidelines for addressing air quality impacts on disease outcomes like asthma or COVID-19 morbidity and mortality.
- Mike Depa participated in the workgroup for developing the Michigan-specific environmental justice screening tool. Other EGLE and DHHS toxicologists reviewed drafts of the tool and associated materials.
- Keisha Williams and other AQD toxicologists assisted with air monitoring data analysis from hazardous waste sites.
- Kay Fritz, Brian Hughes, Eric Wildfang, Keisha Williams and other EGLE and DHHS toxicologists participated in discussions about a potential Section 18 emergency exemption request related to the COVID-19 pandemic.
- Sesha Kallakuri, Jake Carrick, Puneet Vij, and Mike Brunjes assisted AQD with H₂S issues in municipal solid waste landfills. A Technical Memo was written and is currently in DHHS management review.
- Sesha Kallakuri, Jake Carrick, and Mike Brunjes are working with EGLE to address H₂S odor issues and health concerns from agricultural irrigation sprayfields.

V. OUTREACH AND EDUCATION

- a) DHHS-Division of Environmental Health gave a presentation on PFAS at the Michigan Occupational and Environmental Medicine Association annual conference.
- b) Grace Kuan participated on a career panel session and presented a poster for Michigan Society of Toxicology's 2020 Fall Meeting.
- c) Grace Kuan presented a webinar titled "2020 Volatilization to Indoor Air Pathway (VIAP) Screening Level Development" (PowerPoint presentation authored by Shane Morrison) as part of an EGLE RRD training called "Digging Deeper 2020 Voluntary VIAP Screening Levels" with Patty Brandt (RRD Program Specialist) and Mike Neller (RRD Director).
- d) Joost van 't Erve and other DHHS toxicologists presented in public webinars and briefings on the North Kent County Exposure Assessment.
- e) MDHHS toxicologists answer MI-Toxic hotline calls.
- f) Grace Kuan and Keisha Williams are part of the Training Workgroup under Michigan's Interagency Environmental Justice Response Team.
- g) Keisha Williams participated in a virtual Townhall about air quality and health in Detroit, provided updates to share air quality and other environmental-related information with Detroit residents, and provided a presentation to other Region 5 states on Michigan's environmental justice initiatives related to air toxics.
- h) Sesha Kallakuri presented on PFAS and associated health effects at the Great Lakes PFAS Summit.

VI. WEBINARS AND TRAININGS ATTENDED

- a) Region 5 Vapor Intrusion conference calls
- b) EPA's webinar on the CompTox Dashboard
- c) World Health Organization Rapid Risk Assessment webinar
- d) EPA-sponsored webinars, Association of State and Territorial Solid Waste Management Officials-sponsored webinars, and Northeast Waste Management Officials' Association sponsored webinars
- e) ATSDR Public health assessment training
- f) EGLE-RRD's Digging Deeper training webinars
- g) RRD's Digging Deeper: VIAP Screening Levels
- h) ASTM International's Course Risk-Based Corrective Action Applied to Petroleum Release Sites
- i) State Risk Assessor conference calls
- j) Responding to Environmental Emergencies – EGLE and EPA's Roles and Resources webinar
- k) Webinars for wastewater surveillance for SARS CoV-2
- l) Webinar from the National Institute of Environmental Health Sciences on Using the Kinetically Derived Maximum Dose Concept to Refine Risk Assessment
- m) Toxicology forum: Workshop on revising the 2005 cancer guidelines and developing frameworks that include new assessment methodologies and less dependence on 2-year bioassays
- n) SOT and United States Food and Drug Administration (FDA) Food Safety Colloquium: Integrated Approaches to Testing and Assessment: The Future of Regulatory Toxicology Assessment Webcast
- o) Power and Pollinators: Pollinator-Friendly Landscapes for Solar Facilities
- p) International Life Sciences Institute North America Virtual Symposium on Risk Assessment of PFAS in Food
- q) Overview of Michigan University Research Panel Discussion
- r) Packaged in pollution: are food chains using PFAS in packaging
- s) Evaluation of Acceptable PFAS Concentrations in Land-Applied Paper Mill Wastewater Treatment Biosolids
- t) Society of Environmental Toxicology and Chemistry 2020 Annual Meeting Presentations: PFAS in the Environment
- u) FDA's Analysis of PFAS in foods- Analytical method development, challenges, and successes
- v) U.S. EPA National Fish Conference Calls
- w) University of Michigan's From PBB to PFAS: Research and action to Address Michigan's Large-Scale Chemical Contaminations symposium

VII. FUTURE NEEDS AND RECOMMENDATIONS OF THE TSG

- a) Recommendation to hire a statistician (potentially at the departmental level within EGLE) to assist in analysis of environmental, toxicology, and risk assessment data.
- b) Training on environmental justice and risk communication.
- c) Training on software like the EPA's benchmark dose software for dose response modeling, and other best available science and practices in toxicology and risk assessment (such as predictive toxicology methodology; e.g., chem informatics tools and read across, to fill data gaps).
- d) Recommendation on needed staffing of departmental toxicologists: the Material Management Division has been without a toxicologist for three years, the Drinking Water and Environmental Health Division has never had a toxicologist, and the Water Resources Division has two unfilled toxicologist positions. Lack of adequate resources means that some projects may not be completed.
- e) Need to obtain the latest toxicology information on emerging contaminants, specifically persistent, bioaccumulative, and toxic chemicals.
- f) Need for better understanding of each other's programs; e.g., the roles of RRD's, AQD's, and WRD's Toxics Units in the overall EGLE department.