

Secretaries' Science Advisory Board

MEETING MINUTES

Ground Floor Hearing Room, Archdale Building

Monday, December 5, 2022

10:00 AM-3:00 PM

The Department of Environmental Quality (DEQ) and the Department of Health and Human Services (DHHS) Secretaries' Science Advisory Board (SAB) met on Monday, December 6, 2022, in person in the Ground Floor Hearing Room, Archdale Building, in a public meeting. SAB members in attendance were: Tom Augspurger, PhD, Chair; Viney Aneja, PhD; David Howard; Richard Di Giulio, PhD; Tom Starr, PhD; Gina Kimble, PhD; and John Vandenberg, PhD. The SAB members in virtual attendance were Jamie DeWitt, PhD; and Elaina Kenyon, PhD. Also, in attendance were DEQ and DHHS staff: Frannie Nilsen, PhD; Stephanie Bolyard, PhD; Sushma Masemore, Michael Scott; Richard Rogers, Paula Chappell, Steven Rice, Kennedy Holt, MSPH; Virginia Guidry, PhD, MPH; and Zack Moore, MD, MPH.

I. Call to Order

Meeting called to order at 10:12 AM by Chairman ("Chair") Augspurger noting it is an in-person meeting with a few Board members attending virtually due to schedule conflicts.

II. Review and Approve Agenda

Chair Augspurger asked for a motion and second to accept the agenda, as it was shared on November 30. The agenda was approved by unanimous vote.

[Agenda](#)

III. Ethics Statement

Chair Augspurger read the ethics statement and reminded the members that if anyone had any conflict of interest, or issues for which a conflict may be perceived, to indicate so. No conflicts were noted by those in attendance.

IV. Approval of Meeting Minutes for October 3, 2021

The draft meeting minutes were circulated to all members and no edits were requested; the October minutes were adopted unanimously by verbal vote.

[October 2, 2021, Meeting Minutes](#)

V. DEQ/DHHS Updates

DEQ Update: ([meeting recording](#): 00:17:33)

Provided by Sushma Masemore, PE, Assistant Secretary for the Environment, NC DEQ.

■ Chemours Investigation Updates:

- Chemours permit modification application for Fayetteville Works facility- DEQ's Division of Air Quality (DAQ) is conducting a comprehensive review of application and scheduling a full public input process.
- DEQ efforts are focused on reducing impacts from Chemours contamination; ensuring that Chemours meets all obligations

- The Division of Waste Management (DWM) is working in areas around plant and in Lower Cape Fear region; DEQ is conducting a review of the Chemours feasibility report which details the plan for identifying affected residents in the county surrounding the plant; work plan submitted by Chemours to address the contamination.
 - 4600 residents eligible for water treatment in the communities surrounding the plant
 - 2,482 wells samples in the Lower Cape Fear region - 500+ residents have wells sampled; 63 residences have exceeded EPA value of 10 ppt
 - 4531 properties will be sampled and tested based on the eligibility criteria
 - Chemours sent 100,000 letters to the residents in the areas
 - Need local outreach to get the message to residents in the affected area; anyone that is willing to help spread the message is needed.
- The Division of Water Resources (DWR) is reviewing the Chemours NPDES permit for treatment system; barrier wall project intended to eliminate PFAS from entering the river (barrier wall); stop flow of contaminated groundwater into the river. 80+ wells will clean up the groundwater before discharge
 - Project must be completed by March 2023; limits for 3 key indicator compounds will establish removal efficiency for 99.9%.
- **PFAS Statewide Efforts:**
 - DWR- working on state-wide assessment- 3-month campaign that has recently finished- sampling 50 drinking water systems, systems selected based on PFAST data and results over 4 ppb reportable level
 - Data currently under review and will be made publicly available.
 - Ambient groundwater monitoring network being tested, and results will be made available to public
 - Testing around Greensboro airport; determine extent of PFAS in groundwater network in that area.
 - DEQ reviewing all permitted sources and new applications; prioritize industry sectors that are known emitters
 - Fish and water project is important to moving forward in regulatory process
 - PFMOAA feedback is important to reducing Chemours related compounds
- **SAB comments/questions-**

questions and answers are paraphrased below, the discussion can be heard in the [meeting recording](#): at 00:30:40.

 - Impressive amount of work being done.
 - Air quality- distribution of contaminated wells- are the patterns indicative of air deposition?
 - **DEQ Response:** That is one of the sources, studies have been conducted and we know that airborne particles can travel many kms, the river itself is a source of contamination based on years of effluent; the piping system that carries the Cape Fear River water across miles of infrastructure is a likely source. When the contamination has reached any of these routes of transport it can reach private drinking water wells.
 - What is air permit modification requested by Chemours?
 - **DEQ Response:** Company plans to expand its production of its key products at Vinyl Ethers North and South, planning additional unit operations to accommodate those expansions.
 - **[Chemours Permit Information | NC DEQ](#)**
 - 99% reduction in air emissions- are we seeing anything in the receptors that indicates the reduction?
 - **DEQ Response:** Have seen the reduction in the concentration of signature compounds when the Thermal Oxidizer was put into use. This has been measured by stack testing and deposition data. A more comprehensive analyses of the deposition data is being done now. DAQ is looking at individual compounds and the levels that are being deposited and what impact those compounds may have.

- PFAS:
 - Working on community outreach to help residents understand contamination both around the Chemours facility and in other areas that are less well known for PFAS contamination.
 - The fish collection project that took place in the Cape Fear River is important in their work, continuing to work with DEQ to receive data.
- Environmental Health dashboard updates- coordinating on addition of air quality data, working to including CDC Environmental Justice (EJ) index.
 - First meeting of the Public Health Advisory Committee has been held
 - NC Dept of Transportation (DOT) has been engaged in the dashboard development to incorporate those pollution metrics.
- Working with local health departments (LHDs) for options to incorporate EJ into the work of the LHDs, useful to serve the communities.
 - Staff member that is a public health nurse and working as an EJ Fellowship through the National Alliance for Healthy Environments is leading this effort.
- Hoke county received an award to enhance climate resiliency in Eastern NC.
- Communicable disease updates- Covid metrics increasing again – post holiday pulse; other especially illnesses posing challenges to the health care system.
 - Wastewater monitoring- 41 sites now in the network; also providing sequencing data and tracking through that network; measuring flu and RSV in those systems as well; this data is not yet publicly available but will be soon in the EH Dashboard.
- SAB comments/questions- none

VI. PFMOAA Recommendation (*meeting recording: 00:47:33*)

The Board has reviewed and discussed the availability of data and information regarding PFMOAA toxicity. Their conversation included a review of the relevant publications, revision of the draft recommendation, and concluded with the requests to DEQ and DHHS to:

1. Be sure that there are no new publications to consider
2. Determine if there are there any other non-regulatory values that do not require a RfD for derivation.

VII. PFOS and PFOA Bioaccumulation Factor (BAF) Evaluation (*meeting recording: 01:34:33*)

The initial presentation on this topic was presented on October 3, 2021 and can be found [here](#).

The Request from DEQ to the SSAB was:

- 1) Does the SSAB support for the use of EPA literature for the foundation for BAFs for NC?
- 2) Is the method that DEQ Applied to the EPA's vetted BAF data a scientifically sound approach for NC BAFs?
- 3) Which value is most appropriate - the average, geomean, median, or some other statistic to represent PFOA & PFOS BAFs for NC?

The summarized Board discussion regarding Item #1:

- Board members support the use of the EPA-vetted literature to be used as the foundation for BAF derivation in North Carolina.

VIII. Lunch

Lunch break taken from 12pm -1pm

VII. PFOS and PFOA Bioaccumulation Factor Evaluation (*meeting recording: 01:50:58*)

The summarized Board discussion regarding Item #2:

- Board members agree that DEQ's process is a scientifically sound method, as the goal is to derive a surface water concentration to ensure fish are safe to eat.
- DEQ may want to evaluate the BAF values if all consumed species are included, not just those that are found in NC. This would be more conservative and protective since only a few of the 200 species in NC are represented in the EPA-vetted data.

The summarized Board discussion regarding Item #3:

- Board members highlight that this is a weighty decision, and that since this value will be used for human health protection, as applied to a surface water standard to ensure fish are safe to eat, this should be considered with great care.
- Two Board members agree that the proper summary statistic is dependent on the distribution of that data since environmental data does not usually follow a normal distribution. Other Board members identified the geometric mean, average and 75-95% quartiles could be most appropriate.

Board requests to DEQ for the next meeting: add all other consumable species and create comparison table so the Board members can see the difference in the calculations based on the addition on these other species, also present the data plotted in histogram so the distribution of the data can be revealed.

IX. Water and Fish Collection Update (*meeting recording: 02:40:08*)

Provided by Frannie Nilsen, PhD; DEQ Environmental Toxicologist.

- Synopsis: Data analysis is underway. The PFAS that are observed in the surface water and in fish tissue have both similarities and differences in their appearance, patterns, and concentrations at Site 10 in the Cape Fear River. More data will be presented at the next meeting in February 2023.

[2022 Water and Fish Collection Project – Status Update presentation](#)

X. Consent Order Toxicity Studies Update (*meeting recording: 03:01:37*)

Provided by Frannie Nilsen PhD; DEQ Environmental Toxicologist.

[Consent Order Toxicity Studies – Status Update](#)

XI. Public Forum

No members of the public were in attendance or signed up to participate.

XII. Adjourn

Meeting was adjourned at approximately 2:45pm