

# Secretaries' Science Advisory Board

Meeting Summary

**August 31, 2020**

**Virtual Public Meeting**

**10:00 am – 1:00 pm**

The Department of Environmental Quality (DEQ) and the Department of Health and Human Services (DHHS) Secretaries' Science Advisory Board (SAB) met on Monday, August 31, 2020 via WebEx. SAB members in attendance were: Tom Augspurger, PhD (Chair); Jamie DeWitt, PhD; Dave Dorman, PhD; Elaina Kenyon, PhD; Gina Kimble, PhD; Detlef Knappe, PhD; Thomas Starr, PhD; Phillip Tart; Betsey Tilson, M.D., MPH; John Vandenberg, PhD. Also in attendance were Sheila Holman; Ellen Lorscheider (DWM); Mike Abraczinskas (DAQ); Michael Pjetraj (DAQ); Danny Smith (DWR); Michael Scott (DWM); Zack Moore (DHHS); Virginia Guidry, MD (DHHS), and DEQ and DHHS support staff Amy Risen, Sharon Martin, Laura Leonard, Dylan Friedenberg.

## **I. Call to Order (Chairman Tom Augspurger)**

Chairman Augspurger called the meeting to order.

## **II. Review and approve agenda**

Chairman Augspurger asked if there were any modifications to the meeting agenda. There were no modifications to the agenda. Dr. DeWitt moved to approve agenda and Dr. Vandenberg seconded. The agenda was approved by unanimous vote.

## **II. Ethics Statement**

The ethics statement was posted and read by Chairman Augspurger who reminded the members that if anyone had any conflict of interest to indicate so. Dr. Jamie DeWitt explained that she has received funds from the North Carolina's General Assembly to study per and poly fluoroalkyl substances that may include GenX and is currently consulted as an expert witness in PFAS/PFOA litigation. Phillip Tarte mentioned involvement in study a few years ago of GenX in blood from residents of the county he serves. Detlef Knappe has received funding to study the occurrence of PFAS in drinking water sources and study their removal from drinking water processes. He also has projects under the NC Policy Collaboratory to study the occurrence of PFAS in water around the state of North Carolina. There were no other conflicts or potential appearances of conflicts expressed.

## **III. Approval of Meeting Minutes for February 24, 2020**

Minutes were taken by Louise Hughes and forwarded March 16 and again by the Chairperson on July 16. There were no modifications to the minutes. Dr. Vandenberg moved to approve the minutes and Dr. DeWitt seconded. Six members voted "yes" with one abstention and none opposed.

## **IV. DEQ / DHHS updates**

#### Chairman Augspurger's Updates:

- Welcomed back Dr. Dorman from a sabbatical and travel for the Fulbright Scholarship which was cut short because of the COVID-19 pandemic.
- Acknowledged the contributions of Dr. Sandy Stopford who passed away on March 23, 2020. He was on the Science Advisory Board for Toxic Air Pollutants from 1990 until 2016 and on this board from 2017-2020. A donation was made on behalf of the SSAB and a letter was sent to his wife Carolyn Stopford and children. Chairman Augspurger read an excerpt from the letter out loud.
- On March 4, 2020, Chairman Augspurger addressed the Environmental Management Commission with the purpose of keeping the lines of communication open and clear between both bodies. During the meeting he received helpful advice from several commissioners and follow-up recommendations from Commissioner Marion Deerhake about potential best practices and standard operating procedures moving forward.
- On July 21, 2020 Chairman Augspurger met with Dr. James Johnson, Jr. and Dr. Marian Johnson-Thompson of the Secretary's Environmental Justice and Equity Board. The purpose of the meeting was for representatives of each advisory body to meet each other and talk about current relevant topics and potential future topics. They also discussed the charters of each advisory board and their areas of emphasis. They will be talking about opportunities to work together in the future.

#### DEQ's updates:

- Assistant Secretary for Environment, Sheila Holman conveyed greetings from Secretary Reagan and thanked the board for their continued work. She also thanked the board for the recognition they gave to Dr. Stopford for his service to DEQ and North Carolina. He will be missed.
- Ms. Holman provided a summary of the agency's response to the COVID-19 pandemic. Many of the staff continue to work remotely using Teams and WebEx technology to stay connected and maintain social interactions. All public hearings and community meetings are being conducted virtually. The staff have been provided proper protective equipment and practices have been modified to maintain proper physical distancing. Only 10 staff have tested positive for COVID-19 out of 1,600 staff stationed all over the state.
- Ms. Louise Hughes agreed to serve in a re-deployment status to work with the Division of Employment Services since July 30 processing unemployment claims. She is expected back September 30<sup>th</sup>. Ms. Bridgette Morris-McLawn has been conducting Ms. Hughes' duties during her re-deployment.
- Ms. Holman provided an update on the settlement agreement between DEQ, the Southern Environmental Law Center and Duke Energy. This settlement agreement took place at the end of 2019 and resolved how the largest coal ash impoundments at six of Duke Energy's sites would be closed as well as the excavation for the purpose of beneficiation at four other sites. Under the Coal Ash Management Act, DEQ had 120 days to review Duke Energy's closure plans but DEQ was also required to conduct public hearings within 60 days. As a result, DEQ conducted 10 public hearings during the last three weeks in February. As of today, DEQ has acted on nine of the 10 plans. The final plan is scheduled to be finalized in the next few weeks.

- Ms. Holman provided an update on the Chemours Consent Order and per and poly-fluoroalkyl substances (PFAS).
  - In the spring, the Division of Air Quality verified the efficiency of the thermal oxidizer that was installed to destroy PFAS at over 99%. Oversight of the well sampling continues with over 3,000 wells sampled in the area. DEQ and Chemours agreed to pause the sampling effort during the early phases of the COVID-19 stay-at-home order. Well sampling resumed in late May as the state moved into modified phase two of reopening.
  - Work continues on a draft National Pollutant Discharge Elimination System (NPDES) permit of the old outfall 002. Water emerging from the outfall is primarily brown water from the site with a lot of PFAS in it. The permit is for a treatment system to control approximately 99% of the PFAS getting into the river. The addendum to the Consent Order is specifically to address paragraph 12, which focuses on the reduction of PFAS loading into the river to protect the river and downstream public water utilities that draw water from the river. There are four identified seeps, each will have its own designed controls. The pollution controls include a large barrier wall that will be built along the river in addition to extraction wells designed to treat the brown water across the wall. The Consent Order addendum is out for public comment through September 17<sup>th</sup>
  - There was a virtual community meeting on August 13 to provide an update to the community of the work being done around the Chemours site.
  - Chemours is required to develop toxicity studies. Dr. Amy Risen is leading the effort to oversee this work at DEQ together with staff from DHHS.
- Total organic chlorine methodology for sampling of wastewater and air emissions is being done by Dr. Susan Richardson at the University of South Carolina.
- The department is working to fill the position of environmental toxicologist. The position is expected to be filled by mid to late October.

Ms. Holman shared with the board the priority areas for the work of the SSAB:

1. Evaluating concerns about dermal exposures of PFAS in water used for showering and bathing
2. Evaluating concerns about inhalation of PFAS
3. The EPA is expected to finalize chronic reference doses for GenX and PFBS in late 2020, which will be another area of focus
4. Ethylene oxide is another emergent compound. There are several operations that emit this compound across NC. The operations are relatively small sources, but values might have to be evaluated. DEQ staff will be meeting with DHHS staff to review the information about this compound.

#### DHHS' Update and Priorities:

Dr. Zack Moore, Epidemiology Section Chief, DHHS provided the following updates and priorities:

1. The staff has been intensely working on the COVID-19 response.
2. Continue to work with DEQ on issues related to PFAS in the Cape Fear region.

3. Dr. Guidry added that they continue to get questions about PFAS in local produce, eggs, and meat.

Dr. Vandenberg asked how the information about groundwater surrounding the Chemours facility is being shared with others. Ms. Holman responded that the groundwater monitoring data is available online as well as surface water and other monitoring data.

## **VI. Hexavalent chromium**

The SSAB approved a draft hexavalent chromium recommendation document be sent for public comment during their February 24<sup>th</sup> meeting. The draft recommendations were subsequently posted for 45-day public comment. Public comment closed on June 1<sup>st</sup>. A copy of the four comments received was shared with board members on June 15<sup>th</sup>. Dr. Augspurger organized the comments on a spreadsheet that he shared with board members to facilitate the discussion and the review of the public comments. Chairman Augspurger lead the discussion of the comments.

Dr. DeWitt volunteered to check comments which questioned interpretation and/or consistency with documents the board cited from IARC, ATSDR and the EPA. Dr. Kimble, Dr. DeWitt and Dr. Augspurger volunteered to review the subset of comments which the board identified for follow-up and draft a response for the board to review.

Chairman Augspurger announced a break until 11:50 am.

The group reconvened at 11:50 am with all board members present. Dr. Kenyon was having technical difficulties during the first part of the meeting and was not able to provide direct verbal feedback. During the second part of the meeting the technical problem was resolved, and she was able to provide direct verbal feedback.

## **VII. GenX**

Dr. Augspurger sent two recent papers on GenX prior to the meeting for the review of the board. The papers are included below. Augspurger reminded the board that they had made the first recommendation regarding GenX in October 2018. Part of the charge to the board is to stay abreast of new science and to make recommendations. The discussion and review of the two papers by the board is part of that charge.

The two research papers discussed are below:



Blake et al. 2020.pdf



Conley et al. 2019.pdf

Dr. Suzanne Fenton provided highlights of the Blake et al. research paper titled “Evaluation of Maternal, Embryo, and Placental Effects in CD-1 Mice following Gestational Exposure to Perfluorooctanoic Acid (PFOA) or Hexafluoropropylene Oxide Dimer Acid (HFPO-DA or GenX)” since she is one of the co-authors of the paper.

The Chairman thanked Dr. Fenton and opened the floor for questions.

Dr. Knappe asked about the implications of the findings on the 2018 health goal. The health goal is based on a NOAEL (No Observed Adverse Effect Level) of 0.1 mg/Kg/day. The lowest GenX dose in the Blake et al. study was 2.0 mg/Kg/day. The study helps inform mechanisms of toxicity and includes assessment endpoints.

Dr. Knappe asked if they [National Toxicology Program] are studying PFMOAA. Dr. Fenton responded that they are not currently studying PFMOAA but shared that the National Toxicology Program has revised their format to develop projects going forward. The new format allows for nominations or requests from a body like the SSAB. These requests could accelerate PFAS research.

Other feedback from board members included the following:

1. Neither one would lead to a lower, more conservative point of departure than that which was the foundation of the board's 2018 assessment. The mechanistic data lend support to decisions made by the board in the previous review. (Dr. Dorman and Dr. DeWitt)
2. Dr. Vandenberg said he was pleased with this type of research in particular with the description of the quality of the study. It supports the previous decision of the board.
3. Dr. Knappe mentioned that the research supports the point of departure the board selected.
4. The breadth of responses seen was not explanatory of only one mechanistic pathway.

Chairman Augspurger guided board members on a discussion of the process to stay abreast of relevant literature that could merit re-assessment of recommendations. He shared the draft document "Framework for consideration and integration of new data on chemicals for which the SSAB has previously provided risk assessment review and recommendation" to facilitate the discussion. Chairman Augspurger invited comments on the document. Some key considerations mentioned include:

- the level of effort needed to periodically review studies
- the time elapsed since the last recommendations were issued
- the availability of significant new information
- the number of new studies available
- state's established timeframes

The process was discussed in the context of new information on GenX but also considering the applicability to revisiting recommendations about other compounds.

Ms. Holman shared that DEQ would do a periodical evaluation based on how long it had been since a level was last revisited, how many toxicity studies or health risk studies had been published since last time revisited and how prevalent the compound is in the environment.

Ms. Holman also added that regarding PFAS, both DHHS and DEQ continue to get questions from the public that has been exposed to these compounds for years. Questions include concerns about other pathways in addition to ingestion. She mentioned that there is a need to stay vigilant about studies that are coming out and conduct reviews annually or every other year. She also mentioned that toxicity studies in the Chemours Consent Order include other products based on the Chemours data and work that Dr. Knappe and others have done in the area. The data suggest the following compounds of interest; PFMOAA, Nafion byproduct 2, PMPA and others.

Chairman Augspurger reminded the group that respondents of the survey conducted by DHHS and released late 2019 rated the establishment of the health goal as one of the highest rated actions conducted in response to the Chemours contamination.

#### **VIII. Public Forum**

Chairman Augspurger opened the floor for the public forum. There were 5 individuals who signed up to provide public comments. Dr. Fenton had signed up but her comments were included as part of the GenX studies discussion. The other individuals were called one by one to comment but no one responded. A second call of each individual was made with no response.

With no public comments, Chairman Augspurger thanked the members of the board, the public, the staff of both agencies and the staff that made the virtual meeting possible.

The meeting adjourned at 1:00 pm.

**Next meeting is scheduled for October 5, 2020**

Minutes respectfully submitted by,

Mercedes Hernández

Health Educator / Risk Communication Specialist