Blue Ridge Environmental Defense League

www.BREDL.org 4617 Pearl Rd. Raleigh N.C. 27610 (919) 345-3673 therese.vick@gmail.com

.

Ms. Joelle Burleson

Division of Air Quality

1641 Mail Service Center

Raleigh, North Carolina 27699-1641

June 13, 2013

Re: Draft Rule for Revision of the Arsenic AAL

Dear Ms. Burleson:

On behalf of the members and Directors of Blue Ridge Environmental Defense League (BREDL), I appreciate the opportunity to offer the following comments on the proposed revision of the acceptable ambient level (AAL), and corresponding toxic air pollutant permitting emissions (TPERs) rate for arsenic. BREDL opposes these changes, as they are not in the best interest of public health or the environment.

In 2011, when the North Carolina Division of Air Quality posted notice of the Science Advisory Board's "Draft Risk Assessment for Arsenic and Inorganic Arsenic Compounds", it was clear that the impetus to re-assess arsenic came from industry's unwillingness to meet North Carolina's more protective standards. BREDL submitted comments opposing the SAB's

recommendation pointing out arsenic's toxic effects as well as asking the question, "What industry (or industries) are behind the impetus" (to change the acceptable ambient level of arsenic).[1] Upon review of Division of Air Quality files, it is clear that public health was not the driving force behind the changes.

For example:

- The SAB's recommendation was scheduled to be voted on by the Board November 30, 2011 at the 161st meeting, which was held by teleconference. Because of BREDL comments, it was decided to postpone the decision until the January 2012 meeting. During the public comment portion of the teleconference, BREDL inquired as to where this request initially came from. Dr. Starr answered that the request had come from the North Carolina Division of Air Quality. It was explained that certain areas in North Carolina "routinely exceed the current AAL for arsenic."[2,3] The "2009 Annual Air Toxics Report" states that: "...median arsenic concentrations measured across the state in 2009 exceed the AAL for arsenic by 3–4 times." [4] More troubling, members of the SAB pointed out that the lower bound of the proposed AAL was "coincidentally close to the measured concentrations at monitoring sites around NC."[5]
- In the "PSD Preliminary Review – modification 300 construction/operation permit (Draft Revision 8, July 2011 – Assistant Secretary)" for Carolinas Cement Company LLC (aka Titan Cement) proposed to be located in Castle Hayne, North Carolina, the modeled

[1] BREDL Comments Arsenic AAL

[2] From Therese Vick's notes of the 161st meeting of the Director's Science Advisory Board, November 30, 2011.

[3] One Hundred Fifty-Fourth Meeting of the Science Advisory Board on Toxic Air Pollutants-Proceedings of the October 27, 2010 Teleconference

[4] "2009 Annual Air Toxics Report" Division of Air Quality Toxics Protection Branch October 2010

[5] Comment by Dr. Ivan Rusyn, SAB member, One hundred Sixtieth Meeting of the Science Advisory Board on Toxic Air Pollutants-Proceedings of the October 11, 2011 Teleconference

arsenic levels are at 30% of the AAL— according to the company's own modeling and after pollution control. The amount of arsenic potentially emitted into the air of the surrounding community is significant and dangerous. In the Draft Revision, DAQ attempts to diminish the potential concern over these levels by saying "Finally, the Scientific[6] Advisory Board is considering adjusting the Arsenic AAL."[7] As troubling as 30% is, it pales in comparison to the almost 48% of the AAL modeled in an earlier draft.[8]

- Industry admits that sources are having problems meeting the arsenic AAL. Trinity Consultants, a North Carolina environmental consulting firm posted this on their website:

  "For a variety of emission source(s), particularly combustion sources, the arsenic AAL has often been problematic in TAP air dispersion modeling. ***In some cases, affected facilities have had to improve pollution control systems, increase stack heights or place operational limits to demonstrate compliance with the arsenic AA (L)*** [emphasis added]**.**"[9]

- At the November 2010 meeting of the SAB, Brendan Davey, DAQ staff from the Asheville Regional Office, remarked that "there are a few combustion sources in the Asheville region that are having difficulty complying with the AAL for arsenic given current regulations",[10] and that "the control technology for these emissions is

---

[6] Historical Note: The "Science Advisory Board' was known as "The Scientific Advisory Board" prior to 2004.

[7] North Carolina Division of Air Quality: PSD Preliminary Review Draft Revision 8 July 2011

[8] "The air toxics modeling indicated that arsenic was at 47.83% of the Significant Ambient Air Concentration (SAAC) at some locations along the facility property line." North Carolina Division of Air Quality: PSD Preliminary Review Draft Revision 9 September 2009

[9] Trinity Consultants News: Increased AAL for Arsenic

[10] In a January 5, 2012 email to Therese Vick, Brendan Davey listed these three companies as exceeding thee arsenic AAL: **Blue Ridge Paper in Canton, Jackson Paper Manufacturing Company in Silva, and Zickgraf Hardwood Flooring Company in Franklin**

insufficient..."[11]Mr. Davey was speaking of Blue Ridge Paper in Canton, Jackson Paper Manufacturing Company in Silva, and Zickgraf Hardwood Flooring Company in Franklin, NC. At a later meeting, SAB member Dr. Woodhall Stopford ask why the arsenic AAL was being reviewed. He was told that "DAQ needs to have the arsenic AAL reviewed because ambient concentrations are above the AAL across the state and the DAQ has been tasked by the EMC (Environmental Management Commission) to do a combustion source evaluation because ***boilers have been exempt from Toxics regulations.***"[12]

- Operating facilities are not the only companies which have an interest in higher arsenic AAL's. The North Carolina Legislature requires that power companies generate a certain percentage of electricity from poultry manure. [13] Several large-scale biomass incinerators have been proposed in North Carolina. The Division of Air Quality performed a "Toxics Emissions Evaluation from Poultry/Turkey Litter."[14] The modeling DAQ evaluated based on a 50 megawatt facility showed that:
    - "*The model results provide that the arsenic emissions are the limiting pollutant with NC Toxics based on the estimated emissions.* ***For the given plant characteristics, the arsenic emissions resulted in an ambient concentration that is 277% of the AAL*** [emphasis added]."

[11] One Hundred Fifty-Fifth Meeting of the Science Advisory Board on Toxic Air Pollutants- Proceedings of the November 17, 2010 Teleconference

[12] Dr. Reginald Jordan, DAQ Toxics Protection Branch One Hundred Fifty-Sixth Meeting of the Science Advisory Board on Toxic Air Pollutants- Proceedings of the January 26, 2011 Teleconference

[13] "NC poultry litter-fired generating plants under consideration"

[14] Agenda Item 13 March 2009

www.BREDL.org 4617 Pearl Rd. Raleigh N.C. 27610 (919) 345-3673 therese.vick@gmail.com

At the November 16, 2011 meeting of the Air Quality Committee of the EMC, DAQ Director Sheila Holman remarked that directed by the Chairs of the Environmental Review Commission, DAQ was meeting with industry looking at the air toxics regulations. Meeting attendees included representatives from Duke Energy and the Manufacturers and Chemical Industry Council of North Carolina (MCIC). Former NC DENR employees; George Everett, currently with Duke Power (formerly with MCIC), was the Director of the North Carolina Division of Environmental Management, and Preston Howard, currently with MCIC, was the Director of the Division of Water Quality and a DENR employee for over 20 years.[15] Legislative staff facilitates these meetings. By statute, the meetings can be private, and some documents held confidential. However, notes from obtained by BREDL reveal an interest in the arsenic revisions. On October 26, 2011, DAQ Director Sheila Holman made note of this question:

"How many sources would have exceeded the AAL's- w/new As AAL?"[16]

Of additional concern, methodology used by the SAB to support their recommendation did not utilize US EPA's model. Their decision relied heavily on a model used by only one state in the country, Texas.

- The Scientific Advisory Board did not utilize the United States Environmental Protection Agency (USEPA) model to calculate the arsenic AAL. Instead, a model recommended by Flores and Sielken in a January, as presented to the SAB in January 2011, was used to calculate its arsenic ambient air level. Only one other state in the country that uses this modeled approach to calculate the arsenic ambient air level is Texas.
- Only the Tacoma and Montana epidemiology studies should have been included for the SAB's As AAL calculation, which would be consistent with EPA's approach.
- The unit risk factors calculated in the peer-reviewed publication by Viren and Silvers, 1994, should have been considered for the calculation of the AAL for arsenic. It appears

[15] Preston Howard ,George Everett

[16] Notes provided to BREDL by the North Carolina Division of Air Quality

that the unit risk factors utilized by the SAB were not peer-reviewed and published unit risk factors

Lastly, the United States Environmental Protection Agency is currently performing a "Toxicological Review of Inorganic Arsenic". The rule changes before you now may be obsolete in the future.

I appreciate the opportunity to comment.

Sincerely,

Therese Vick

North Carolina Healthy, Sustainable Communities Campaign Coordinator