

BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

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November 5, 2003

Marion Deerhake, AQC Chair
Environmental Management Commission
1617 Mail Service Center
Raleigh, NC 27699-1617

Re: Acceptable ambient limits for hydrogen sulfide, 15A NCAC 2D .1104

Dear Chairwoman Deerhake:

On June 26, 2003, I traveled to Atlanta to meet with the Agency of Toxic Substance and Disease Registry (ATSDR) a branch of the Center for Disease Control. Also present were several EPA Region IV officials in the Air Toxics division. I had been writing and calling both agencies for months about my growing worries about the potential for significant human health risks from the Weyerhaeuser pulp and paper mill emissions in Plymouth, NC. I was particularly troubled by NCDENR's recent proposal to the EMC giving Weyerhaeuser a long-term exemption for their toxic air releases. ATSDR and EPA officials after our meeting also shared my concerns as had some NCDHHS officials. After much thought and effort ATSDR arranged for an August 1, 2003, teleconference later rescheduled to August 15, 2003. The large teleconference was organized by ATSDR'S Danielle Devoney, PHD, Stephanie Bock, MPH, and Carl Blair with NCDHHS and my assistance. Many concerned ATSDR, EPA, NCDHHS, and NCDENR officials participated along with Janet and Lou Zeller of BREDL, Dr. Jonathan Davidson (Duke), and me.

We discussed the preliminary exposure, toxicity and health data that had been collected by Dr. Luanne Williams (NCDHHS's Chief Environmental Toxicologist) and her excellent group, Dr. Karin Yeatts (UNC School of Public Health), NCDENR, and me. The recently revealed data showed that Weyerhaeuser was releasing over 3,000,000 pounds of previously unreported hydrogen sulfide from their toxic industrial wastewater treatment facility into the air each year in Plymouth. Based on Weyerhaeuser's own estimates NCDENR modeled multiple days of significant airborne exposures to hydrogen sulfide for greater than 80,000 people in a 25-mile radius at levels that could cause asthma attacks and other health problems in some vulnerable individuals. Asthma hospitalizations were noted to be elevated above state averages in four of the five surrounding counties which were exposed to high levels of hydrogen sulfide from Weyerhaeuser's Plymouth, NC when modeled.

Recently, I learned with the cooperation of some NCDENR employees that the 3,635,400 pounds of hydrogen sulfide Weyerhaeuser finally reported may only represent 7% of an estimated 48,000,000 million pounds of potentially harmful Total Reduced Sulfurs likely emitted from their Plymouth plant each year. This implies greater health risks for respiratory, neurocognitive, and neurobehavioral problems, for a much larger number of residents and workers are likely to be exposed more frequently and at higher levels than previously thought at the time of our

August 15, 2003 teleconference. In addition, EPA officials reminded us that this same Weyerhaeuser Plymouth facility is already the site of four Federal Superfund sites for mercury, dioxins, solvent, and other contamination. Recently we learned that in the early 1990's Weyerhaeuser had previously been warned by the Washington State Department of Health, fined by the Washington State Department of Ecology, and convicted by a jury in a civil trial for exposing a community in Washington state to very dangerous releases of hydrogen sulfide and other toxic compounds from their toxic wastewater lagoons at their pulp and paper mill. It should not come as a surprise to Weyerhaeuser that the same type of emissions from toxic waste filled lagoons at their Plymouth facility could pose significant health risks for both their own employees and residents.

At the end of our joint ATSDR led teleconference, we were in unanimous agreement about the **potential imminent health risk for residents and workers from hydrogen sulfide and related compounds** in the Plymouth region. It was mutually agreed that NCDHHS would request the assistance of ATSDR for the upcoming exposure and health risk investigation. Douglas Campbell, MD sent out the letter to ATSDR requesting prompt evaluation on August 18, 2003 with the strong support of Leah Devlin, DDS MPH the State Health Director and NCDHHS Secretary Odom. NCDHHS and ATSDR posted the attached press release on October 21, 2003 regarding their preliminary investigation at Weyerhaeuser's Plymouth facility.

It is very disturbing to our members and other citizens across the state that senior NCDENR officials were willing to ignore after intense lobbying the potentially significant human health risks from Weyerhaeuser's enormous toxic releases in Plymouth. NCDAQ even proposed to the EMC that they give an exemption from the need to comply with NC air toxic regulations for hydrogen sulfide to the pulp and paper industry. The present NCDENR requirement is for all other companies to notify NCDENR of industrial releases greater than 0.52 pounds of hydrogen sulfide per hour so that emissions can be modeled and controlled if there are potential health risks. Weyerhaeuser's Plymouth plant release 415 pounds of hydrogen sulfide an hour using their own estimates yet they never notified NCDENR as required or tried to protect the public and their own workers from hazardous exposures seven times NC outdated existing acceptable ambient levels at their property boundary.

We appreciate NCDENR remodeling Associated Asphalt hydrogen sulfide after my last letter to you and NCDENR in March 2003.. The new modeling is far better than their initial modeling which incorrectly assumed only 4 pounds a year off emissions. The true annual emissions from Associated Asphalt and Chevron Asphalt before them are still significantly greater than the new NCDENR assumptions of past and present releases. Also, peak hydrogen sulfide emissions at given time points when railcars are being unloaded or tanker trucks are being filled are clearly dramatically higher than daily averages of modeled yearly emissions. Asphalt plants show dramatic seasonal and hourly fluctuations of their emissions, and estimates used in the updated NCDENR modeling assumed no such fluctuations.

In addition, the large hydrogen sulfide air emissions from the adjacent APAC hot-mix asphalt plant were not considered by NCDENR in their recent modeling. Residents must breathe, and thus they are exposed to the combined releases from the two adjacent plants. Therefore, NCDENR must model both past and present emissions from the two asphalt facilities joint releases for assessment of community exposures that pose health risks. The additional health

risks from other components of total reduced sulfurs have not been included because NCDAQ senior officials chose not to measure them in Salisbury against ATSDR and NCDHHS advice. Of note is the fact that NCDERN's most recent modeling showed past exposures of dangerous levels of hydrogen sulfide at a Little League park, an elementary school, a mall, several churches, multiple neighborhoods, and even at the Salisbury Veterans Administration Hospital which housed a pulmonary unit. We are alarmed by the death certificate data for emphysema, pneumonia, and suicides seen in the areas exposed to high levels of hydrogen sulfide. Further study of these very worrisome preliminary observations are required to understand the full health risks for hydrogen sulfide exposures in Salisbury.

The same cavalier attitude about potential human health risks shown by some NCDENR officials about Weyerhaeuser's Plymouth emissions also occurred with the 72 solvent contaminated NCDOT and asphalt company sites across the state. The often heavily contaminated chlorinated solvent sites were basically ignored by the agency for well over a decade leading to current or pending ATSDR investigations in at least nine NC cities for human health risks secondary to solvent exposures. ATSDR's nearly three year long investigation of toxic air, water, and soil releases from the asphalt facilities and their relationship to obviously increased rates of brain cancers and other significant health outcomes is still ongoing in Salisbury.

It is our hope that with additional training, more Legislative, EMC, and EPA oversight, and greater financial and staff resources NCDENR can prevent or at least begin to minimize environmental and health problems in the future from situations like these. There are significant financial and emotional costs to society and the state from these kinds of chemical contamination of our environment and the associated human exposures to hazardous chemicals. A recent Federal study showed very significant cost savings for society occur when companies comply with environmental regulations. NCDENR must maintain more independence from the regulated industries and lobbyist who formerly directed them so that the agency can fulfill their mandated responsibility. NCDENR consistently has failed to enforce or adequately punish even the companies that severely and repeatedly contaminated our environment and citizens in Plymouth, Salisbury, and across the state. As a state and country, we must do better than this if we hope to ever protect our children and seniors who are at far greater risk of harm from environmental toxins than most adults.

NCDENR senior leadership is to be commended for having the courage to ask their Scientific Advisory Board to review the hydrogen sulfide issue. NCDENR's excellent Scientific Advisory Board provided sound advice on safer hydrogen sulfide levels incorporating new scientific knowledge, which we hope will not be ignored by NCDENR Division of Air Quality officials in the future. We ultimately need the EMC to approve new health protective levels for hydrogen sulfide and eventually total reduced sulfur compounds at both the 1-hour and 24 hour time period. The 1-hour hydrogen sulfide standard clearly provides the most protection for many adverse health outcomes including asthma. The EPA should also reconsider their own past failure to list hydrogen sulfide as Federal toxic air pollutant given the new scientific data and health risks seen. A Federal standard would be far more efficient for the country as citizens in all states need protection from dangerous levels of hydrogen sulfide and total reduced sulfurs. Remember that an ounce of prevention is worth more than a pound of cure. Just ask the children and seniors in Salisbury and Plymouth as they struggle for their breath, or the seniors who have memory problems, or those residents who too often struggled with depression and too frequently

committed suicide . The EMC, NCDENR, and the EPA must in the future rely more on the precautionary principle and err on the side of preventing toxic exposures to our citizens and the environment whenever there is any doubt about where and when to set health protective standards.

Thanks in advance for your continued leadership, interest, and consideration,

Sincerely,

Rick Weisler, MD
Blue Ridge Environmental Defense League
