

“Humboldt’s Dirtiest Power Plant has been Breaking the Rules for Years” by Wendy Ring was published on the Northcoast Environmental Center website on January 31, 2023.

Humboldt Sawmill Company found a number of comments that would benefit from additional correction, clarification or commentary which are presented on the right side of the page in green italics.

Substantial factual information on Mendocino and Humboldt Redwood forests and its practices are available at www.mendoco.com.

<p>Text of Article <i>Text of article begins below, spaces placed to allow facts to line up with text of article.</i></p>	<p><i>Humboldt Sawmill Company Facts, Corrections, Clarifications, and Commentary</i></p>
<p>Have you ever had a medical test which found an abnormality other than what the doctor was looking for, and that required another test which determined the first abnormality was OK but turned up another unexpected finding, leading to another test? Doctors call those unexpected and ultimately unimportant abnormalities “incidental findings”, and the frequency with which they occur is why we are careful to only order tests which might change our treatment. But every now and then, one of these unexpected results and the chain of investigations it incites do turn out to be important. I recently had an experience like this, but the investigation wasn’t medical and its conclusion has health implications for our entire community.</p> <p>I discovered that Humboldt County’s dirtiest power plant has been breaking pollution laws for years and so has the regulator who is supposed to catch them. I’m talking about the biomass plant in Scotia, which emits a host of toxic, endocrine disrupting, and carcinogenic chemicals along with fine particulates which transport these toxins from the lungs into the bloodstream and ultimately to our vital organs. I’m also talking about the North Coast Unified Air Quality Management District (NCUAQMD aka “the air district”) the agency charged with enforcing state and federal pollution laws. And</p> <p>[ARTICLE CONTINUES BELOW]</p>	<p><i>The North Coast Unified Air Quality Management District issued a Permit To Operate (PTO) for the biomass plant owned by Humboldt Sawmill Company (HSC). HSC is in compliance with the PTO.</i></p> <p><i>The air district has been enforcing the PTO. The biomass facility has received and provided corrective action and responses as needed to stay in compliance.</i></p>

I'm talking about Redwood Community Energy Authority (RCEA) which aided and abetted by supporting the biomass plant with ratepayer dollars while assuring the community it was clean energy conforming to state and federal standards.

I stumbled upon all this while trying to answer a question, but first I need to explain why I was asking. For full disclosure, I'm hardly impartial about biomass. I've been trying to get RCEA to stop buying biomass energy for years. With only 7 years left to cut Humboldt's greenhouse emissions in half, we need big fast greenhouse gas reductions. Hastening the demise of the biomass plant by depriving it of our energy dollars is realistically one of the only ways we can do that. Closing the plant would cut annual emissions by 300,000 metric tons while redirecting mill waste to uses like compost for application on working lands and green hydrogen production might avoid or sequester 100,000 tons more. None of that addresses our fossil fuel addiction but with time running out and climate impacts accelerating, we must do what we can.

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The California Global Warming Act of 2006 (AB-32) has emission reduction goals, including a 40% reduction of GHG's as compared to 1990 levels by the year 2030. The overall quantities of GHG's are based on inventories established and managed by CARB. These are clarified in several CARB documents, including the Technical Support Document from California's 2000-2015 Greenhouse Gas Emission Inventory (2016 edition), which states the following below (particular portion shown highlighted - pg 13 of the document):

"The California GHG inventory includes the emissions of CO₂, CH₄ and N₂O resulting from the combustion of fossil fuels, including gaseous fuels (natural gas, refinery gas, etc.), liquid fuels (distillate, residual fuel oil, jet fuel, etc.), and solid fuels (coal, petroleum coke, etc.). Various biomass fuels (wood, agricultural biomass and landfill or digester gas) are also used to produce heat and electricity. The GHG inventory includes only the CH₄ and N₂O emissions resulting from the combustion of biomass fuels since the CO₂ emissions would have occurred eventually as the biomass decayed. These CO₂ emissions, labeled "from biogenic materials", are estimated and tracked, but are not included in California's GHG inventory total."

Biogenic sources of GHG's, particularly CO₂, have been considered carbon neutral by EPA and for applicability to GHG reductions, are not included.

In addition to its impact on climate, biomass takes a toll on our health. EPA modeling estimates that Humboldt Sawmill Company's biomass plant costs us \$4-6 million annually in heart attacks, asthma attacks, cancer, hospitalizations and premature deaths. When the EPA came out with new emission limits for biomass plants, I wondered if this could be the key to shutting our aging local plant down. It turns out it's not. But the "incidental findings" from reading the EPA regulations and reviewing the reports the plant submits for compliance led me to an entirely different conclusion.

The plant hasn't met federal standards for years and the body charged with enforcing these rules has been letting them get away with it. I thought, "surely this can't be true", and kept looking for records to prove myself wrong, but instead found the situation was even worse. State laws were broken as well, and not by the power plant, but by the agency supposed to regulate them. I uncovered more than I can write about without boring you to death with nerdy details, but here are the most important things.

Fine particulates are the most dangerous pollutant coming from the biomass plant. These emissions are regulated under the federal Clean Air Act but the EPA delegates their enforcement to regional air quality management districts, like NCUAQMD. To prove compliance, power plants must measure the actual concentration of particulates in a sample from their smokestack every 1-3 years and operate continuous opacity monitors. Since all of a community's protection between smokestack tests relies on these opacity monitors, federal rules require quarterly quality assurance and an annual performance tests which must be reported to the air district.

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There is no source cited or listed for the EPA modeling and \$4-6 million annual statement, however, the wording closely resembles that from the following link specific to overall (Nationwide) climate change. The direct link of the HSC facility to the identified cost should have a cited reference or be removed. The facility is unaware of any published document specific to the HSC facility that indicates these values.

<https://www.epa.gov/climateimpacts/climate-change-impacts-air-quality>

The EPA website "Enforcement and Compliance History Online" shows no violations for this facility in the last five years. <https://echo.epa.gov/detailed-facility-report?fid=110070388738#characteristics>

Compliance with the Permit To Operate requires performance testing for particulate matter and Visible Emissions Monitoring (VEM) which can include both opacity monitoring and VEM. The facility opacity monitors maintain 6 minute average data continuously. This information is submitted to the district when requested as per the Permit To Operate. Calibrations are performed daily on the continuous opacity monitoring system and calibration documents are available to the district.

Over the last 6 years no annual performance tests of opacity monitors were done, no quarterly testing was reported, and no action was taken by the air district. During most of those years, the smokestack tests at least met EPA standards, up until September 2022. That test sample showed high levels of particulates but the air district wasn't notified for 2 months. With untested opacity monitors as an inadequate backstop and the last stack test done 2 years prior, the plant may have exceeded federal pollution limits for as long as 2 years.

The biomass plant emits another class of pollutants called air toxics. These include chemicals like benzene, dioxin, and formaldehyde which cause cancer, developmental abnormalities, and other acute and chronic health consequences. California's Air Toxics Hot Spot Act directs air districts to follow certain procedures to protect communities. NCUAQMD last took a halfhearted stab at enforcing this law over 20 years ago and then pulled a Rip Van Winkle. While the law required risk to the community from the biomass plant's toxic emissions to be re-evaluated every 4 years, 22 years went by and nothing was done.

During that time, the plant's toxic emissions increased, nearly 40 additional biomass pollutants were added to the state's air toxics list, cancer potency factors were increased and health risk assessment procedures updated to account for childhood exposures, and the

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Annual performance tests and quarterly reporting are not required according the Permit to Operate. The 6 minute average data from the continuous opacity monitors can be requested by the air district at any time.

The air district was on site when the test sample was conducted. According to this permit, the facility operator had 60 days to submit compliance testing results to the Air District. A consultant was hired to prepare this report which took time to prepare. This report was submitted to the air district within 60 days. A retest was conducted, again with the air district present, the results of which showed the facility in compliance.

If compliance testing results are less than one-half of the permitted limit, then the next year compliance test may be waived by the district.

The previous owner of the facility prepared a report as per regulations in this act approximately 20 years ago. The law requires a reevaluation every 4 years if new equipment has been added to the site. As all equipment remained the same, no re-evaluation was required.

biomass plant's priority score, used to measure the urgency of evaluating community health risk, rose from 79 to 5599. Any one of the above events should have triggered a re evaluation, and the annual air toxic reports the state requires of air districts could have served as a reminder, but no reports were ever written and no new assessment was ever done. If a re-assessment had revealed a high risk, the community would have been informed and the plant required to reduce its toxic emissions, but without quadrennial reviews, these opportunities were lost.

After getting reinforcements from the California Air Resources Board to join my pressure campaign, we were able to get NCUAQMD to agree to start fully enforcing state and federal laws at the biomass plant. That doesn't hit rewind and suck years of pollution back into their smokestacks, and even when the rules are followed they still allow biomass plants to pollute as much as coal. I can't tell you what this pollution has cost our community's health.

The \$4-6 million a year I quoted earlier is based on particulate emissions when the plant follows the law, and doesn't account for air toxics at all. Did these years of broken laws cause your grandfather's heart attack or your best friend's cancer? We'll never know.

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The Air Resources Board website shows low scores for cancer, chronic, and acute prioritizations (https://www.arb.ca.gov/app/emsinv/iframe/facinfo/facdet.php?co_=12&ab_=NC&facid_=60&dis_=NCU&dbyr=2020&dd=).

The previous owner of the facility prepared a required report approximately 20 years ago as per regulations in the Air Toxics Hot Spot Act. The law requires a reevaluation every 4 years if new equipment has been added to the site. As all equipment remained the same, no re-evaluation is required.

The air district has requested an update to the AB-2588 air toxics evaluation. We are currently in the process of completing the update by March 31st, 2023.

The claim that biomass energy is dirtier than coal likely comes from a report out of Maine where whole trees are harvested for biomass energy. Biomass energy in California is powered by waste products such as sawmill residuals, non-commercial vegetation from fuel reduction projects, and agricultural woody waste. When looking at the carbon footprint of these two very different sources of woody feedstock, there is no comparison, especially when considering the stringent regulations of the California Air Resources Board.

*The Air Resources Board website shows low scores for cancer, chronic, and acute prioritizations for this facility:
https://www.arb.ca.gov/app/emsinv/iframe/facinfo/facdet.php?co_=12&ab_=NC&facid_=60&dis_=NCU&dbyr=2020&dd=.*

What I can tell you is that anything that incurs millions of dollars in annual health costs, creates a toxic hot spot and requires continuous policing by the air district, isn't clean energy. In 2019 RCEA recognized this by committing to plan for a long-term transition away from biomass combustion and provide 100% clean and renewable energy by 2025. Then they broke these promises by extending the biomass contract to 2031.

Incinerating mill waste is a dirty archaic technology that pollutes the air and destroys valuable feedstock for real climate solutions. It needs to end and the violations I've described allow RCEA to get out of their contract early, but they won't do it without strong community pressure. If you want real clean energy, contact the city council member or supervisor who represents you on RCEA's board and ask them to dump biomass now.

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