

Public Comment

November 14, 2023
Community Advisory Committee
Meeting

From: [Wendy Ring](#)
To: [Public Comment](#)
Subject: Public comment for Community Advisory Committee
Date: Monday, November 13, 2023 1:19:40 PM

RCEA staff have proposed a study involving citizens using portable air quality monitors to determine the regulatory compliance and health impacts of Humboldt Sawmill Company's biomass plant. What follows is an explanation of why this proposal has no scientific basis and is simply a tactic to delay cleaning up RCEA's renewable portfolio.

Determination of the regulatory compliance of power plants is not based on measuring the air quality around them but by measuring the concentration of pollution in their smokestacks. Direct measurements are done once every 1-3 years (with the interval dependent on prior results) and concentrations are continuously approximated by continuous pollution monitoring systems. The results of both are reported to air districts, which issue violations when levels exceed federal limits or other required conditions are not followed.

The numerous violations issued by the North Coast air district already tell us that Humboldt Sawmill Company's biomass plant is an outlier compared with other biomass plants in Northern CA. What follows is a comparison of violations between Humboldt Sawmill Company and the six biomass plants in Shasta County from 2017-2023.

Burney Forest Products

V20-0456 1 emissions exceedance in 2020

Sierra Pacific Anderson

V22-0084 28 exceedances of CO in Jan 2022

V22-0212 20 exceedances of CO in April 2022

V23-0118 burned fungicide treated wood chips 36 times

Sierra Pacific Shasta

V22-0311 Failed source test for pm

Sierra Pacific Burney

V19-0239 failed to conduct RATA under proper conditions

Sustainable Resource Management Shasta

V23-0107 1 fuel pile too high

Wheelabrator Shasta

V20-0314 Failed to calibrate CEMS on one day

HSC biomass plant CO exceedances = increased emissions of air toxics. Opacity exceedances = increased emissions of fine particulate matter.

2017

NOV 160206 4 CO exceedances

NOV 160207 7 CO exceedances

NOV 160208 48 opacity (pm) exceedances over 8 days

NOV 160209 88 opacity exceedances over 13 days

2018

NOV 13228 fly ash silo leaking dust – poor maintenance

NOV 13229 another fly ash silo leaking dust- poor maintenance

NOV 13230 boiler leaking dust- poor maintenance

NOV 13231 bucket elevator leaking dust- poor maintenance

2020

NOV 13193 fly ash silo leaking dust

NOV 13625 1 CO exceedance

2021

NOV 13265 1 CO exceedance

NOV 13268 3 CO exceedances

NOV 13269 equipment leaking fugitive dust

NOV 13231 bucket elevator leak – poor maintenance

NOV 13330 dust leak in boiler auger- poor maintenance

2022

112 Violations of particulate emissions due to poor maintenance of pollution control equipment.

2023

NOV 14032 failure to report boiler breakdown

NOV 14038 CO exceedance 3 in 3 days

NOV 14045 opacity exceedance 24 hour*

NOV 14046 opacity exceedance 24 hour* for 3 days

NOV 14047 2 opacity exceedances in 1 day

NOV 14048 1 opacity exceedance

NOV 14049 opacity exceedance 24 hour* for 3 days

NOV 14203 opacity exceedance 24 hour* for 1 day

* the air district only started issuing violations for exceeding 24 hour opacity limit after I brought this part of the Clean Air Act to their attention.

I don't think the difference in violations between HSC and biomass plants in Shasta County is due to better enforcement in Humboldt. During the same time period that Humboldt Sawmill Company racked up hundreds of violations, the gas fired Humboldt Bay Generating Station had zero. Shasta AQMD is also years ahead of NCUAQMD at complying with state Air Toxics regulations. They also responded to my request for public records in days, compared to NCUAQMD which always takes the maximum time allowed by law.

RCEA staff's "research" proposal is symptomatic of their lack of understanding and lack of motivation to address Humboldt Sawmill Company's poor environmental performance. RCEA staff were notified about the plant's poor compliance history last year as soon as I became aware of it, yet continue to minimize these issues in their communications with the public. Examples include implying that violations were a legacy issue from when Humboldt Redwoods purchased and reopened the plant in 2015 and not a current concern, when the list of violations above makes clear this is not the case; and minimizing the importance of biomass particulate pollution by comparing it to the larger contribution from road dust. Aside from that fact that we can't shut down road dust like we can shut down a power plant, inorganic particulates do not contain the same kinds of mutagenic, carcinogenic, and inflammatory constituents as particulates from combustion of organic material and don't cause the same health harm.

Staff have also tried to reassure the public by saying the air district told them "HSC is not a bad actor" because it responds to and fixes its violations. Fixing something after you get caught is a pretty low bar. Many of these violations are the result of poor maintenance and are repeats of previous violations. The pollution they cause may go on for months before even being detected by an inspector. It is common for months to pass between the time a violation is found and a citation is issued. In the case of HSC's failure to evaluate the performance of its opacity monitors, the resulting violations still haven't been formally issued and will only cover the several months between detection and resolution, while the public's exposure to illegal levels of particulate pollution may have gone on for as long as two years.

RCEA staff rightly point out that they don't have the time and resources to develop expertise in biomass plant regulations and follow all the violations issued by the air district. Given that limitation, they should at least refrain from misinforming or misdirecting public attention from this serious issue. A strong argument can be made that if RCEA can't be responsible for limiting health and environmental harm in its supply chain, it should avoid contracting for dirty energy.

The health impacts of biomass pollution are well established and do not need to be re-proven locally. In addition to the

additional 7-8 emergency room visits per month for lower respiratory conditions which Dr Stockton described, other health impacts from biomass pollutants well documented in the literature include elevated rates of cancer, adverse birth outcomes, neurodevelopmental harm, heart attacks and strokes, hospitalizations, and premature deaths. The relative risks of these adverse health outcomes have been established from studies of very large populations over long periods of time, repeated in many different places. These risk ratios are more valid than a local study of a small community where an impact has to affect a large proportion of the population to reach statistical significance. Epidemiologists take the reported quantities of emitted pollution from a power plant, and apply air dispersion models and these risk ratios to determine health impacts on any given population. A "show me the bodies" approach to local biomass pollution where we ignore these well established methods and wait to prove that Humboldt residents experience the same health harms from biomass pollutants as people in other places would be both ignorant and shameful.

These health impacts occur even when the biomass plant obeys the law. The federal emission standards for biomass plants were never designed to be health protective. They are based on the best that facilities using inherently dirty technology can do. The EPA sets its standard as the average emissions from the "cleanest" 12 percent of biomass plants. That average results in allowable emissions which exceed those for coal plants and cause all of the health impacts listed above. Monetized health damages from the Scotia plant calculated using emissions factors for a plant compliant with federal regulations and EPA's Co-benefits Risk Assessment Tool yielded annual health costs of \$3-7 million (EPA, 2023).

RCEA should put an early end to biomass in its 2024 Integrated Resource Plan. The 2017 PPA contract between HSC and RCEA runs until 2031 but provides for early termination in the event of violations and misrepresentation by HSC. (RCEA, 2017). There is no question that these have occurred. While there may be a shortage of clean alternatives right at this moment, there is more than enough clean energy coming online in the near future at comparable, or even lower, prices to replace biomass long before the contract expires (CAISO, 2022; Level Ten, 2023). The vast majority of projects in the pipeline include energy storage so there will be alternatives for firm power and resource adequacy. RCEA's 2024 Integrated Resource Plan is the appropriate place to plan replacement of biomass's predominance in RCEA's renewable portfolio with the 100% clean energy by 2025 that RCEA promised.

Taking a stand matters. While dropping biomass won't prevent HSC from continuing to generate and sell its dirty power to other buyers, the reputational damage of having a contract terminated due to multiple environmental violations will limit the pool of buyers and lower the price HSC can command. This will provide HSC a much needed push toward moving on to cleaner alternative uses for their mill waste.

Sincerely,

Wendy Ring MD, MPH

REFERENCES

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- Level Ten PPA Price Index Q3 2023 https://go.leveltenenergy.com/l/816793/2023-10-16/37vzf7/816793/169747170949GYjDTA/2023Q3_NA_PPAPriceIndex_Executive_Summary.pdf
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