FACTS Families Advocating for Chemical & Toxics Safety

July 25, 2025

Permit Ombudsman, Air District
375 Beale Street, Suite 600
San Francisco, CA 94105

RE: Formal Comments Opposing Permit Application #704470 (Resynergi Pyrolysis Chemical Incinertator Facility, Plant No. 203504)
Somo Village (Resynergi)
1200 Valley House Drive, Rohnert Park, CA 94928
West side of building 1200
Plant No. 203504

Dear Bay Area Air Quality Management District:

I am writing on behalf of the non-profit, FACTS: Families Advocating for Chemical & Toxics Safety, a project of the Center for Environmental Health. FACTS is an educational and advocacy non-profit organization that serves as a clearinghouse for evidence-based information and expert resources in children's environmental health. FACTS promotes sustainable actions to remediate the unnecessary and harmful exposure to chemicals and toxics in our everyday lives.

FACTS expresses profound concern regarding Permit Application #704470 for the proposed Resynergi pyrolysis facility at 1200 Valley House Drive, Rohnert Park. While the concept of advanced plastic recycling may appear forward-thinking on its face, a deeper examination of pyrolysis technology—particularly in its unproven community-scale deployment—raises serious questions about both environmental efficacy and public health risk.

Despite the applicant's characterization of this project as an innovative solution to the plastic waste crisis, the absence of operational track record, long-term emissions data, and independently verified outcomes suggests otherwise. The facility represents a first-of-its-kind industrial experiment—one that would be situated alarmingly close to homes and a school. Such a proposal demands the highest level of regulatory rigor and public scrutiny.

Given the unprecedented nature of this project and the clear potential for harm, I strongly urge the District to conduct a critical evaluation of the applicant's claims and require stringent, third-party validation of all emissions projections, operational safeguards, and environmental impacts.

Key Concerns Requiring Heightened Regulatory Scrutiny:

1. Documented Emissions and Hazardous Waste Generation
Pyrolysis operations are not benign. U.S. EPA data shows that just three pyrolysis facilities operating between 2021 and 2024 collectively generated over 2 million pounds of hazardous

waste—materials containing known carcinogens and toxins that affect reproductive and neurological systems. This incinerator's output includes toxic air contaminants (TACs) such as propylene and 1,3-butadiene, the latter of which is already identified in this application as the primary cancer risk driver. Furthermore, even with proposed abatement, emissions from the incinerator's Thermal Oxidizer (A1) are projected to include arsenic and cadmium—both of which exceed the District's risk screening thresholds.

It is important to note that fuel derived from pyrolysis is not classified as "recycling" by the U.S. EPA, the European Union, or the State of California.

2. Significant Fugitive Emissions from Reactor Equipment
The application identifies numerous potential leak points—valves, flanges, seals—within the CMAP Reactor Skid (S1), where fugitive emissions may escape during normal operations. These leaks, particularly of 1,3-butadiene, are extremely difficult to control in practice and rely on theoretical assumptions about Regulation 8, Rule 18 compliance. Real-world evidence suggests that such systems often underperform compared to modeled projections.

3. Limited Reliability of the Thermal Oxidizer
The applicant has identified the Thermal Oxidizer as the incinerator's "critical pollution control device," yet its effectiveness is contingent on ideal, steady-state conditions rarely achieved in dynamic operations. Notably, the updated minimum operating temperature listed is 1168°F—substantially lower than the previously claimed 1800°F necessary to meet Best Available Control Technology (BACT) standards. Such discrepancies raise concerns about whether the device can reliably eliminate hazardous constituents under variable conditions.

4. Lack of Proven Viability and Precedent
Chemical recycling facilities across the country, including pyrolysis plants, have encountered repeated technical failures, financial instability, and public opposition, resulting in closures. These systemic issues cast serious doubt on the readiness of this technology for deployment near residential areas, let alone schools.

Requested Actions to Ensure Community and Environmental Protection:

1. Independent Scientific Verification:
All applicant claims—concerning yield, emissions, and post-processing outcomes—must be independently verified by third-party experts, with specific rejection of mass balance accounting schemes that obfuscate true recycling rates.

2. Real-Time and Transparent Monitoring:
Continuous emissions monitoring should be required not only at the thermal oxidizer but also for fugitive emissions from the CMAP Reactor Skid. All monitoring data must be made publicly available in real time to ensure community oversight and trust.

3. Enforceable Emissions Limits and Automatic Shutdown Triggers:
Permit conditions must include strict, enforceable pollutant thresholds. Any exceedance—particularly for TACs such as 1,3-butadiene—must result in immediate shutdown. No grace periods or discretionary compliance timelines should be allowed.

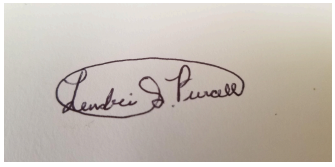
4. Mandatory Thermal Oxidizer Performance Standards:
Operating temperature must remain at or above the level required for full pollutant destruction. This must be continuously monitored and enforced without exception.

This technology is being advanced as a climate-forward solution to plastic waste, yet its implementation at this proposed site would, in effect, place the surrounding community—and especially nearby schoolchildren—at the front lines of an industrial experiment with unknown long-term consequences.

To move forward without independent validation, enforceable safeguards, and meaningful community engagement would represent not only a failure of precaution but a breakdown of the public trust. I urge the District to apply the highest standards of environmental and health protection and to reconsider advancing this permit without the necessary due diligence.

Thank you for your attention to these above stated concerns and for your continued commitment to public health and environmental integrity.

Sincerely,



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