



January 21, 2020

St. James Parish Council
5800 Hwy. 44
Convent, LA 70723

By email to: linda.hubbell@stjamesparishla.gov

Re: FG LA LLC (Formosa) Land Use Decision

To the St. James Parish Council:

RISE St. James and Louisiana Bucket Brigade submit this supplement to their December 23, 2019 letter asking that the St. James Parish Council seek a reopening of its decision (Resolution 19-07, Jan. 24, 2019) and rescind its approval of the construction of the chemical complex proposed by FG LA LLC (“FG” or “Formosa”). This supplement includes information not provided in FG’s land use application and highlights the impact of Formosa’s toxic emissions beyond the company’s proposed site.

The proposed facility would be one of the largest plastics plants in the world. Indeed, no other company has tried to obtain this many permits all at once to build a complex as large and polluting. Bloomberg News reported Formosa is building this facility in Louisiana rather than the company’s home in Taiwan because “Taiwan has tightened regulations, making major local expansion difficult for Formosa.”¹ The article quoted a Formosa executive as saying: “In Taiwan the government treats petrochemical investment as a polluting industry and stigmatizes us.”

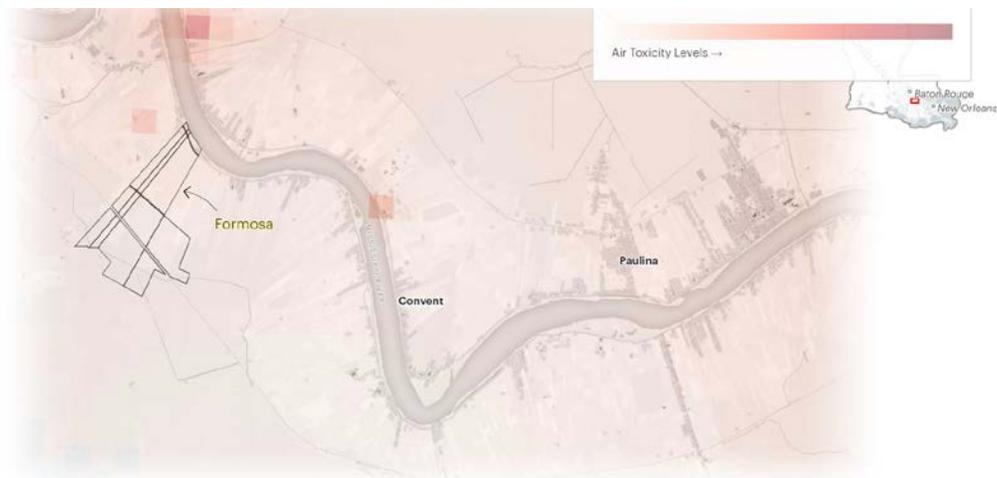
As RISE St. James and Louisiana Bucket Brigade detailed in their December 23, 2019 letter, Formosa’s operations are expected to nearly double the amount of toxic emissions parish-wide. And while the areas closest to Formosa’s proposed site in District 5 and District 4 would suffer the most severe impacts, Formosa’s toxic emissions would affect the entire parish. In their letter, RISE St. James and Louisiana Bucket Brigade discuss the study that ProPublica and The Advocate conducted, which shows how widespread the impacts would be if Formosa constructs and operates.²

¹ B. Einhorn, Bloomberg, “A Plastics Giant That Pollutes Too Much for Taiwan is Turning to America” (Dec. 13, 2019), <https://www.bloombergquint.com/businessweek/asian-company-that-pollutes-too-much-at-home-expands-in-america>.

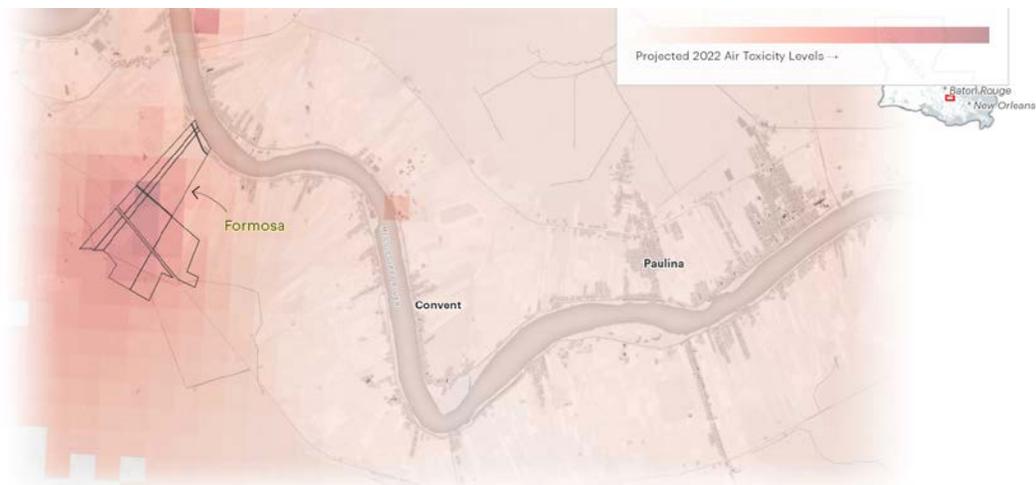
² See L. Younes, ProPublica, “In a Notoriously Polluted Area of the Country, Massive New Chemical Plants Are Still Moving in” (Oct. 30, 2019), <https://projects.propublica.org/louisiana-toxic-air/>; L. Younes, ProPublica, “What Could Happen if a \$9.4 Billion Chemical Plant Comes to ‘Cancer Alley’”

Effects on 3rd District

Below are graphic images copied directly from the article detailing the results of the study and the impacts to areas throughout the parish. The first graphic shows the current level of cancer-causing chemicals parish-wide using the scale shown—i.e., the darker the shade, the higher the concentration of these chemical. The second graphic shows what the estimated air toxicity levels from cancer-causing chemicals would look like if Formosa constructs and operates. As shown by comparing these graphics, Formosa’s toxic emissions would increase the concentration of toxic chemicals throughout the parish.



Without Formosa’s emissions.



With Formosa’s emissions as allowed by the proposed air permits.

(Nov. 18, 2019), <https://www.propublica.org/article/what-could-happen-if-a-9.4-billion-chemical-plant-comes-to-cancer-alley>

Massive Increase in Ethylene Oxide

One of these cancer-causing chemicals is Ethylene Oxide, which is linked to breast cancer, non-Hodgkin lymphoma, and lymphocytic leukemia.³ Indeed, the U.S. Environmental Protection Agency recently proposed a rule aimed at reducing Ethylene Oxide emissions nationwide⁴ after the agency found that Ethylene Oxide is far more carcinogenic than previously understood.⁵

While there is a national effort to reduce Ethylene Oxide, the Louisiana Department of Environmental Quality (LDEQ)—which uses outdated air quality standards for the pollutant—is proposing to allow Formosa to emit enormous amounts of it. LDEQ is proposing to allow Formosa to emit 15,400 pounds per year (or 7.7 tons per year) of Ethylene Oxide into the air.

Cancer Risk

RISE St. James and Louisiana Bucket Brigade hired an air quality modeling expert to show the reach of the Ethylene Oxide emissions that LDEQ is proposing to allow Formosa to emit. The air modeler created two cancer risk plots using the Ethylene Oxide modeling analysis based on

³ Evaluation of the Inhalation Carcinogenicity of Ethylene Oxide, EPA 3-66 (Dec. 2016), https://cfpub.epa.gov/ncea/iris/iris_documents/documents/toxreviews/1025tr.pdf. In addition to significant cancer risks, the Agency for Toxic Substances and Disease Registry (“ATSDR”) warns that acute respiratory exposure to Ethylene Oxide may cause narrowing of the bronchi and partial lung collapse. Inhalation of Ethylene Oxide can also produce central nervous system depression, and in extreme cases, respiratory distress and coma. The ATSDR also notes that children may be more vulnerable to Ethylene Oxide exposure, especially chronic exposure. Ethylene Oxide ([CH₂]O), ASTDR, <https://www.atsdr.cdc.gov/MHMI/mmg137.pdf>. EPA and the ATSDR have also warned that inhalation exposure to Ethylene Oxide can lead to spontaneous abortions. Ethylene Oxide: Hazard Summary, <https://www.epa.gov/sites/production/files/2016-09/documents/ethylene-oxide.pdf>; Toxicological Profile for Ethylene Oxide, <https://www.atsdr.cdc.gov/toxprofiles/tp137.pdf>.

⁴ See EPA’s proposed NESHAP for the miscellaneous organic chemical manufacturing industry (“Proposed MON Rule”), 40 C.F.R. 63, subpart FFFF (Nov. 1, 2019), <https://www.epa.gov/stationary-sources-air-pollution/miscellaneous-organic-chemical-manufacturing-national-emission-0>.

⁵ *Ethylene Oxide: History*, EPA:IRIS (last updated July 28, 2018), https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=1025#tab-3 (describing IRIS’s work from 2006–16 on the 2016 IRIS value for inhalation carcinogenicity); see *Notice of a Public Comment Period on the Draft IRIS Carcinogenicity Assessment for Ethylene Oxide*, 78 Fed. Reg. 44,117 (July 23, 2013); see *Evaluation of the Carcinogenicity of Ethylene Oxide Docket*, REGULATIONS.GOV (last visited July 12, 2019) <https://www.regulations.gov/docket?D=EPA-HQ-ORD-2006-0756>; *Evaluation of the Inhalation Carcinogenicity of Ethylene Oxide, Executive Summary*, EPA (Dec. 2016), https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/1025_summary.pdf; *Evaluation of the Inhalation Carcinogenicity of Ethylene Oxide*, EPA (Dec. 2016), https://cfpub.epa.gov/ncea/iris/iris_documents/documents/toxreviews/1025tr.pdf.

Formosa's own assumptions and emission controls.⁶ Below are copies of the two risk plots. The first cancer risk plot shows that Formosa's Ethylene Oxide concentrations exceed the 1-in 100,000 risk level at the Fifth Ward Elementary school, Welcome, and much of Convent.⁷ The second cancer risk plot shows that Formosa's Ethylene Oxide concentrations exceed the 1-in 1,000,000 risk level at least as far as Paulina in District 3.⁸

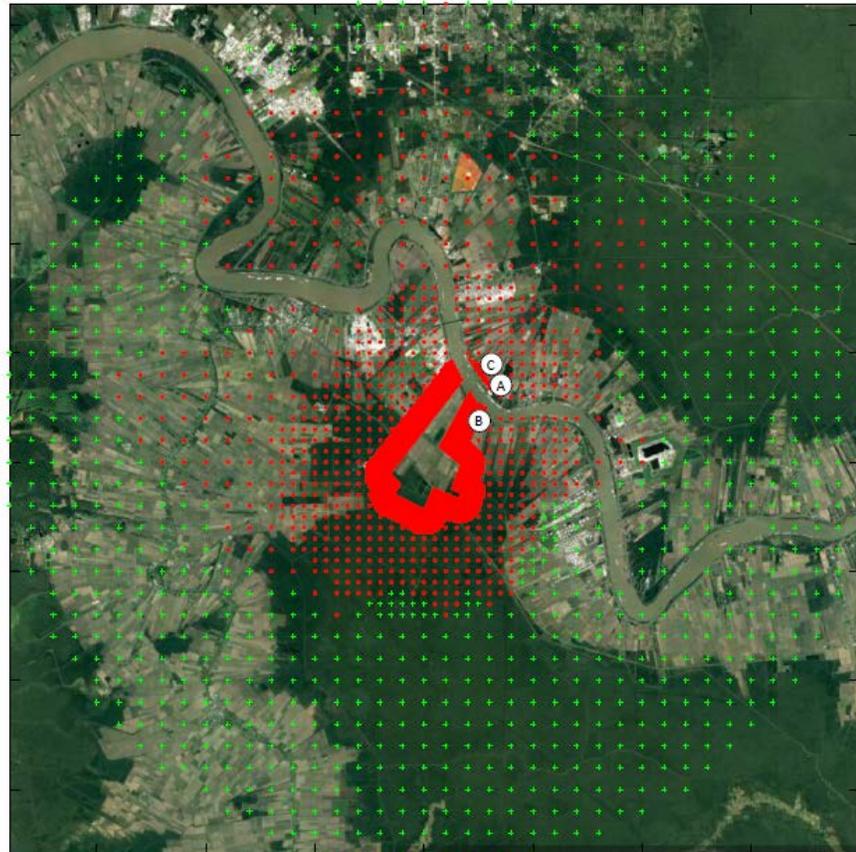
Map created by Todd Cloud, Chemical Engineer, using Updated TAP Modeling Analysis (December 11, 2018) submitted by Zephyr Environmental Corporation in support of the FG LA Chemical Complex PSD Application

AERMOD Output file
FGLA-MG-13_2017_EO.GRF

EtO Full lifetime IUR = 0.005 per EPA IRIS
1 in 100,000 cancer risk = 0.002 ug/m3

Total cancer risk based on human data.
Lymphoid cancer incidence and breast cancer incidence in females.

A = Sugar Hill RV Park
B = Fifth Ward Elementary School
C = Union (Residential Community)



⁶ See Todd Cloud Aff., ¶¶ 6-9 (attaching 1 in 100,000 risk plot and 1 in 1,000,000 risk plot), available on LDEQ's EDMS Doc. 11817927 at pdf pp. 109-128, <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11817927&ob=yes&child=yes>.

⁷ *Id.* at pdf p. 127.

⁸ *Id.* at pdf p. 128.

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Map created by Todd Cloud, Chemical Engineer, using Updated TAP Modeling Analysis December 11, 2018 submitted by Zephyr Environmental Corporation in support of the FG LA Chemical Complex PSD Application

AERMOD Output file
FGLA-MG-13_2017_EO.GRF

EtO Full lifetime IUR = 0.005 per EPA IRIS
1 in 1,000,000 cancer risk = 0.0002 ug/m³

Total cancer risk based on human data.
Lymphoid cancer incidence and breast cancer incidence in females.

A = Sugar Hill RV Park
B = Fifth Ward Elementary School
C = Union (Residential Community)



As with the ProPublica study, RISE St. James and Louisiana Bucket Brigade's expert found that Formosa's cancer-risk impact is far-reaching.

For the foregoing reasons, and the reasons expressed in RISE St. James and Louisiana Bucket Brigade's December 23, 2019 letter, we ask that the Council reopen and rescind its approval of Formosa's Land Use Application. Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Van Dalen".

Corinne Van Dalen, Staff Attorney, La. Bar No. 21175
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On behalf of RISE St. James and Louisiana Bucket Brigade