



April 2, 2020

Indiana Department of Environmental Management
Office of Air Quality Compliance Branch
100 North Senate Avenue IGCN 1003
Indianapolis, IN 46204-2251

RE: Valero Renewable Fuels Company, LLC request for temporary approval to produce hand sanitizer at its Linden Plant during the national health crisis related to the COVID-19 pandemic (Permit # 107-40881-00061).

To Whom It May Concern:

Valero Renewable Fuels Company, LLC ("Valero") is submitting this notification of temporary operation per 326 IAC 2-1.1-3(h)(3) to produce hand sanitizer at its Linden Plant. The hand sanitizer will be generated in small batches at the site and donated to hospitals and emergency response organizations in the local communities where Valero does business.

This project meets the criteria in 326 IAC 2-1.1-3(h)(3)(A) through (E) as follows:

- (A) The potential to emit from this project will be well below 25 tons.
- (B) The project is not a major source.
- (C) The purpose of the project is to temporarily conduct an operation not considered part of the normal operation or production of the facility.
- (D) The duration of the project is expected to be less than 30 days of total operation unless the current health crisis and corresponding shortage of hand sanitizer persists longer than anticipated. If this occurs and the Linden Plant is needed to meet community requests for additional hand sanitizer, Valero will notify IDEM and request additional time for this project.
- (E) The project is not part of a soil or water remediation project.

Under 326 IAC 2-1.1-3(h)(3)(F), the regulation states: *If the construction, reconstruction, or modification would otherwise require a modification approval or operating permit revision, the owner or operator shall provide the department written notice of the proposed construction, reconstruction, or modification at least seven (7) days before beginning the construction, reconstruction, or modification.* Valero provides the information below regarding the specifics of the proposed temporary project, however, since Valero has previously had a discussion with IDEM regarding this project (email notice on 3/31/20 and phone conference on 4/1/20), Valero respectfully requests a waiver of the 7 day requirement. We understand that IDEM has previously provided written waiver of the 7 day requirement for Temporary Operation Notifications for RV Manufacturers after Hurricane Katrina. This circumstance is similar with respect to immediate need in light of the national crisis. The Linden Plant would like to begin producing hand sanitizer 4/6/20 which would allow the Plant to begin donating product to community organizations as early as 4/9/20 (the hand sanitizer must sit for 72 hours after it is put into its final packaging per the World Health Organization (WHO) recipe).

Valero meets the conditions specified in 326 IAC 2-1.1-3(h)(3)(F)(i) through (v) as described below.



- (i) *A description of the purpose of the construction, reconstruction, or modification.*
The plant will divert a small portion of its 200 proof ethanol into a few totes. The ethanol will then be transferred from the tote into a 10 liter container where the hand sanitizer will be made. The finished hand sanitizer will be transferred from the 10 liter container into 1 gallon bottles for use. The purpose of this process is to generate hand sanitizer for donation to hospitals and emergency response organizations in the communities where Valero does business.

- (ii) *A description of how the construction, reconstruction, or modification is experimental or not part of the normal operation or projection of the facility or source.*
The Valero Linden Plant is an ethanol plant and does not normally produce hand sanitizer. It is only doing so at this time of national crisis to meet the needs of the community during this global pandemic.

- (iii) *The dates the owner or operator anticipates the construction, reconstruction, or modification to begin, operations to begin, and operations to cease.*
As discussed above, the Valero Linden Plant would like to begin producing hand sanitizer on 4/6/20. It is not certain at this time when this temporary operation will cease but it is not currently anticipated to be longer than 30 days. If the shortage of hand sanitizer persists beyond 30 days, Valero will contact IDEM regarding an extension of the temporary operations.

- (iv) *An estimate of the potential emissions and actual emissions increase resulting from the construction or reconstruction.*
Valero anticipates the total emissions from the temporary hand sanitizer production to be approximately 5 lbs. This includes the emissions from filling the 4 totes, then filling approximately 115 ten (10) liter carboys from each tote, then filling 2.6 bottles from each carboy. See the attached spreadsheet for the emissions calculations. Due to the current plant operations, the emissions from this activity will be well below all hourly and annual permitted emissions limits.

- (v) *The equipment involved in the construction, reconstruction, or modification.*
The Valero Linden Plant will fill an estimated four 300 gallon totes with 200 proof ethanol. The site will transfer the ethanol from the tote into a 10 liter carboy where the sanitizer will be made. The final product will be transferred to 1 gallon jugs for distribution and/or shipping.

In addition, per 326 IAC 2-1.1-3(h)(3)(G), Valero will provide IDEM written notice upon conclusion of this temporary project.

If you have any additional questions, please call me at 210-867-9870 or email me at laura.schock@valero.com.

/s/ Laura Schock

Laura Schock
HSE Director
Valero

Tote Filling Emissions

80 F 200 proof ethanol

P = 9.00 kPa

Mole fraction ethanol =

9.00 kPa/101.3 kPa =

0.089

Container volume = 300 gal

V = 26.65 gal ethanol vapor

26.65 gal ethanol vapor

n = 4.10 moles

Ethanol = 46 g/mol

0.19 kg =

0.42 LB per tote filled

Anticipate filling 4 totes = 1.66 LB potential emissions from filling totes

Carboy Filling Emissions

80 F 200 proof ethanol

P = 9.00 kPa

Mole fraction ethanol =

9.00 kPa/101.3 kPa =

0.089

Container volume = 2.6 gal

V = 0.23 gal ethanol vapor

0.23 gal ethanol vapor

n = 0.04 moles

Ethanol = 46 g/mol

0.0016 kg =

0.0036 LB per carboy filled

Anticipate filling 115 carboys for every tote = 0.41 LB potential emissions from filling carboys from each tote

With 4 totes = 1.66 LB total potential emissions from filling carboys

Shipping Bottle Filling Emissions

80 F 200 proof ethanol

P = 9.00 kPa

Mole fraction ethanol =

9.00 kPa/101.3 kPa =

0.089

Container volume = 1 gal

V = 0.09 gal ethanol vapor

0.09 gal ethanol vapor

n = 0.01 moles

Ethanol = 46 g/mol

0.0006 kg =

0.0014 LB per bottle filled

Anticipate filling 2.6 bottles for every carboy = 0.0036 LB potential emissions from filling bottles from each carboy

Anticipate filling 115 carboys for every tote = 0.41 LB potential emissions from filling bottles from each tote

Anticipate filling 4 totes = 1.66 LB total potential emissions from filling bottles

Total potential emissions from filling four totes of ethanol and generating an anticipated 1200 bottles of hand sanitizer =

4.98 LB