

UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH CAROLINA
ROCK HILL DIVISION

)		
UNITED STATES OF AMERICA,)		
Plaintiff,)		
)		
v.)	Civil Action No. 21-cv-2053 SAL	
)		
NEW INDY CATAWBA, LLC)		
Defendant.)		
)		

SUPPLEMENT IN SUPPORT OF MOTION TO INTERVENE AND LIFT STAY

Intervenors submit this Supplement in support of their motion to intervene in this action, pursuant to Rule 24, Fed. R. Civ. P., and 42 U.S.C. §7604 (the “Motion”) [ECF No. 7]:

Intervenors submit this Supplement to inform the Court of new evidence developed in Intervenors’ ongoing investigation that is relevant to Intervenors’ Motion. [ECF No. 7]. New Indy’s pollution continues to harm the surrounding community, including Intervenors, despite EPA’s Emergency Order. While EPA and New Indy negotiate a consent decree behind closed doors and without Intervenors’ involvement, Intervenors have continued with their investigation. This is has led to the discovery of several important facts.

First, we now know that when New Indy’s wastewater treatment plant (“WWTP”) catastrophically failed in April 2021, its hydrogen sulfide (H₂S) emissions at that time were likely more than 1500 times higher than what New Indy had represented would occur when it applied to the South Carolina Department of Health and Environmental Control (“DHEC”) to disconnect the stripper that controlled toxic emissions and change the facility’s process. *Second*, although New Indy has been required to model its current emissions to determine concentrations of H₂S in the community’s air, it has relied on unsupported, theoretical estimates for the emissions from its

WWTP when it should be actually measuring the emissions. These significantly understated emission estimates used as input values in the air model result in inaccurate findings regarding H₂S concentrations in the air. As a result, the community continues to breathe malodorous and dangerous concentrations of H₂S and other chemical compounds emitted from New Indy's facility. Moreover, the erroneous results cannot be relied on to determine New Indy's compliance with the Emergency Order. *Third*, New Indy's air modeling of its emissions does not demonstrate compliance with South Carolina's Toxic Air Pollutant Requirements because it not only fails to accurately predict its H₂S and TRS emissions, but it also does not model methyl mercaptan, a Toxic Air Pollutant with property line limits 14 times more stringent than H₂S.

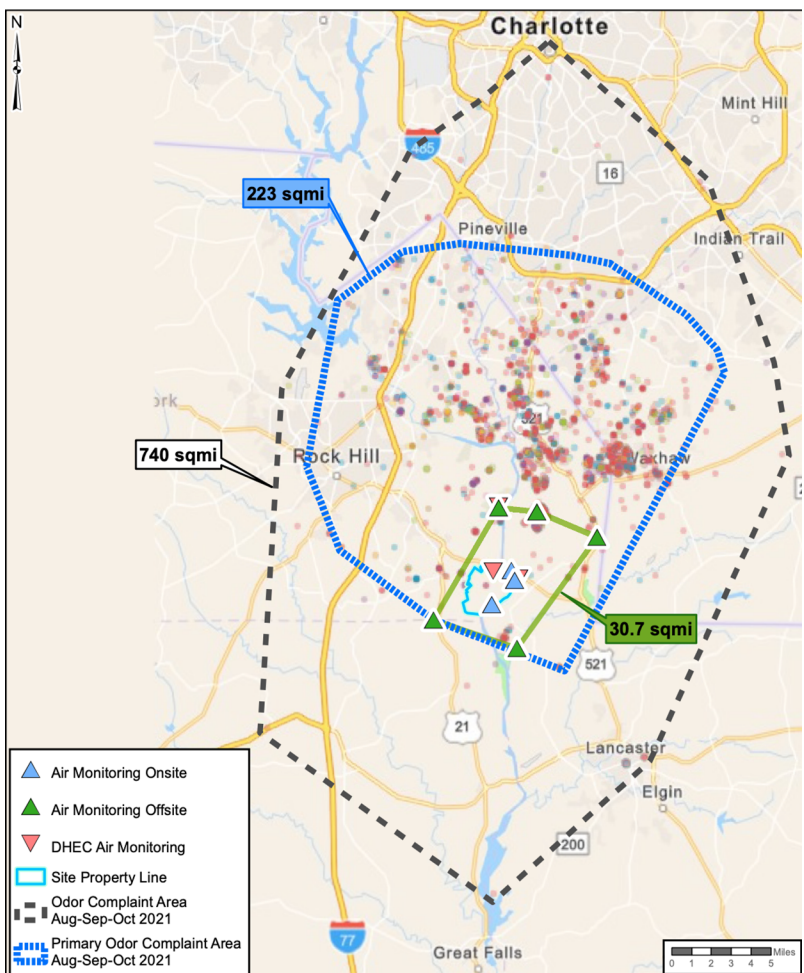
These facts, having fully developed after Intervenors filed their reply, [ECF No. 21], further support Intervenors' intervention under Rule 24, Fed. R. Civ. P., and 42 U.S.C. §7604 so that they can adequately represent their interests.

* * *

Intervenors¹ are citizens residing within 15 miles of New Indy's 1,200-acre paper mill. While New Indy has made some modest improvements to its WWTP, it continues to dump 300,000 or more gallons of foul condensate containing excessive levels of H₂S and other malodorous and toxic reduced sulfur compounds into the WWTP. *See* Ex. A, Kenneth Norcross December 23, 2021 Report. As a result, area residents continue to suffer from the malodorous and toxic emissions that escape from New Indy's facility and blanket the community, leading to more than 200 complaints

¹ Intervenors are Enrique Lizano, Melda Gain, Krista Cook, Jean Hovanec, Kathleen Moran, Terri Kennedy, Marsha Stewart, Ida McMullen, Cammie Barnes, Donald Honeycutt, Kenny N. White, Tracie Nickell, Amanda Swagger, and John Hollis. [ECF No. 7, Ex. A ¶1]. Intervenors' counsel represent them and approximately 1,700 similarly situated people in class actions pending in this Court. [ECF No. 7, Ex. A ¶2].

per month to DHEC. The below figure, based on DHEC’s website’s Odor Reports Maps, shows the recent complaint patterns and the inadequate air monitoring.²



On December 16, 2021, Intervenor’s held a Teams meeting with EPA during which the issues addressed in this Supplement were discussed, with Intervenor’s attorneys and experts giving a detailed, 25-slide PowerPoint presentation. (See Ex. B, T. David Hoyle December 23, 2021 Ltr. to Johanna C. Valenzuela (with PowerPoint slides enclosed)).

² Intervenor’s continue to maintain that New Indy’s air monitoring is inadequate because it is only monitoring for H₂S, it leaves gaps around the facility, and does not cover areas with persistent citizen complaints. See ECF No. 7, Ex. A ¶¶ 45-52 & Ex. A, Ex. 5, Osa Declaration and Report.

I. The actual emissions from New Indy's WWTP in April 2021 were likely 1,500 times higher than what New Indy predicted in their representations to DHEC in 2020.

As part of New Indy's conversion of its facility, it applied in April 2020 to DHEC for a construction permit to take its hazardous air pollution stripper out of service and instead transport all its foul condensate to its outdoor WWTP. [ECF. No. 7, Ex. A ¶¶11]. New Indy wanted to avoid the requirement to apply for a Clean Air Act Prevention of Significant Deterioration ("PSD") permit. [ECF. No. 7, Ex. A ¶¶4, 12, 66-68]. To that end, New Indy represented to DHEC that there would be a net increase of 2.2 tons per year ("tpy") of H₂S compared to the significant increase threshold of 10 tpy prescribed by the PSD Regulations, 40 C.F.R. 52.21 (a)(2)(iv)(b)(23). [ECF. No. 7, Ex. A, Ex. 1 at 4-6 (Table 3)].

New Indy's representation was based on its use of a computer model ("H2SSIM") designed to predict air emissions from a WWTP. The H2SSIM model was created by the National Council for Air and Stream Improvement, Inc. ("NCASI"). Notably, Intervenors received the unredacted version of New Indy's application of the NCASI H2SSIM report (the "NCASI Report") on December 2, 2021 from DHEC because, previously, New Indy had claimed it was confidential. For that reason, Intervenors had alleged PSD violations in the Complaint in Intervention on "information and belief." [ECF No. 7, Ex. A ¶¶13, 22]. Now Intervenors have reviewed the NCASI Report and determined the model was inapplicable and doomed to yield inadequate estimates. NCASI publishes a technical support document that requires a specific set of operating conditions in the WWTP before the model can be used. New Indy's WWTP operating conditions grossly failed all the requirements of the NCASI Model, thereby giving inaccurate emissions estimates, which New Indy represented to DHEC.

Intervenors' expert has determined using back-calculations and reverse modeling that the actual H₂S emissions from New Indy's facility in April 2021 were 1,500 times higher than what

New Indy represented in its application to DHEC. Intervenors' expert used EPA's Geospatial Monitoring of Air Pollution ("GMAP") measurements of H₂S ambient air concentrations taken April 24-27, 2021 about 500 to 1,000 meters north of a WWTP aeration pond, including a reading of a maximum concentration of 1000 parts per billion ("ppb"). *See* Ex. C, Steven Hanna December 23, 2021 Report. Using those measurements with wind data, Intervenors' expert used an integral dispersion model to back calculate the emissions rate that would have produced those observations. *Id.* Intervenors' expert concluded that the emission rate on April 27, 2021, extrapolated to an annual figure, resulted in a total emission rate from that aeration pond equivalent to 3650 tpy. *Id.*

In contrast, New Indy had predicted its H₂S emission rate would increase on an annualized basis by 2.2 tpy and thus would be below EPA's significance threshold of 10 tpy. Intervenors' expert's analysis shows that New Indy's annualized rate was more than 1,500 times what it predicted and 365 times the level EPA regards as significant. New Indy exceeded the PSD threshold in a single day.

Although EPA did not measure TRS concentrations in the ambient air, New Indy's recent submission indicates that its H₂S emissions comprise only 10% of its total TRS emissions. [ECF No. 7. Ex. A, Ex. 3 (CAP) at p. 6-12, Table 6-1]. Assuming that is accurate, this analysis also yields a conclusion that TRS was being emitted at an annualized rate 36,500 tpy as compared to EPA's PSD significance threshold for TRS of 10 tpy, 40 CFR 52.21(a)(2)(iv)(b)(23). New Indy had represented to DHEC that its TRS emissions resulting from disconnecting the stripper and changing the process would be below significance. That was obviously not accurate. This evidence relating to H₂S and TRS further supports Intervenors' allegation that New Indy violated PSD regulations. Had New Indy complied with EPA PSD regulations, there would at the very least have been a required control technology analysis as described in Intervenors' original motion.

Intervenors and their fellow residents now pay the price for New Indy's misrepresentation and failure to control its toxic emissions.

II. New Indy's Corrective Action Plan hinges on air modeling that, because of erroneous inputs of WWTP emissions, has produced inaccurate and unreliable results that ignores the toxic air pollutant methyl mercaptan and significantly understates the facility's ongoing emissions of H₂S.

As part of its Corrective Action Plan ("CAP"), New Indy in October³ submitted to DHEC an Air Dispersion Model Analysis Report (the "Air Model") that purports to show that New Indy complies with South Carolina toxic air pollutant requirements at its property line for H₂S. EPA will likely rely on this report as the basis to conclude that New Indy's remedial measures taken to date are sufficient to satisfy the requirements of the Emergency Order and to claim there is no endangerment to the community. The Air Model's results, however, cannot be relied upon because methyl mercaptan has not been modeled and the inputs related to the modeled H₂S emissions from the WWTP are unsubstantiated and grossly understated.

The Air Model only works and produces reliable results when key model inputs (i.e. emissions estimates) are themselves accurate. Here, instead of measuring emissions coming off its WWTP, New Indy used the same NCASI H₂SSIM model derived by the pulp and paper industry to estimate emissions from its WWTP. However, as noted above and NCASI itself states, the NCASI model is meant to predict how much H₂S is being emitted from a properly functioning WWTP. Even if New Indy's WWTP were functioning properly (which it is not), actual emission measurements would be much more reliable than NCASI's theoretical wastewater model.

Wastewater expert Kenneth Norcross has analyzed the current operations of New Indy's WWTP, reaching three conclusions. *See* Ex. A, Kenneth Norcross December 23, 2021 Report.

³ The latest version New Indy's Air Dispersion Modeling Analysis Report only became publicly available on or about December 3, 2021.

First, the prerequisite operating conditions that would qualify New Indy to use the NCASI model to predict air emissions are not present, and thus use of the NCASI model cannot be justified.

Second, New Indy's air modeling simply omitted emissions from 18 acres of accumulated sludge that amassed during New Indy's catastrophic malfunction in the period from February to May 2021. The sludge itself is a significant source of toxic emissions of H₂S, methyl mercaptan, and other reduced sulfur compounds. New Indy measured these substances in the WWTP in August and found very high concentrations of methyl mercaptan that Mr. Norcross has determined is bubbling up from the sludge. In addition to methyl mercaptan's adverse impact on quality of life due to its noxious odor, it can irritate mucus membranes in the respiratory system, eyes, and skin. [ECF No. 7, Ex. A, Ex. 7, Meggs Declaration and Report at p. 3].

Third, NCASI Technical Bulletin #956 describes techniques that can readily be used to measure emissions from a WWTP, rather than relying on a water model calculation. New Indy's NCASI water model-based emissions estimates are unreliable and no substitute for performing actual emission measurements at the WWTP.

All of this poses the question why has New Indy not measured actual emissions when there are multiple methods of collecting actual emissions of H₂S, methyl mercaptan, and TRS from wastewater facilities like New Indy's WWTP? *See* Ex. D, Rick Osa December 23, 2021 Report. There are thousands of people breathing this air and there is very little protective monitoring. Is New Indy afraid of what actually measuring its emissions will show?

For New Indy to produce potentially valid air modeling results, it must obtain actual emissions data from the WWTP by either: i) installing temporary total enclosures and using traditional source measurement methods; or ii) measuring emissions using flux chambers or boundary layer methods for all TRS-emitting sources at the WWTP. *See* Ex. D, Rick Osa

December 23, 2021 Report. Using these actual measurements as input data, it must run the air dispersion model for H₂S, methyl mercaptan, and TRS to determine whether levels of these toxic pollutants at its property line and in the surrounding community meet federal and South Carolina regulatory requirements and are protective of human health.

III. New Indy's Air Dispersion Model does not demonstrate compliance with South Carolina's Toxic Air Pollutant Requirements.

New Indy's October 2021 Air Dispersion Model Analysis ("Air Model") attempts to show that current air emissions from its facility meets South Carolina's Toxic Air Pollutant standards which limit the concentrations of H₂S and methyl mercaptan at New Indy's property lines. *See Ex. E, New Indy CAP Air Dispersion Model Analysis, Section 5.3, p. 5-17, Table 5-6.*⁴ For the reasons presented above, the Air Model uses significantly understated input values for fugitive H₂S and TRS emissions from New Indy's WWTP, and thus cannot be relied upon to accurately predict the levels of such emissions in the surrounding community, let alone the property line.

However, even if New Indy's Air Model results were somehow viewed as reliable, there has been no independent modeling of methyl mercaptan, a Toxic Air Pollutant designated by DHEC with property line limits 14 times more stringent than H₂S. *See S.C. Code Regs. 61-62.5, Standard No. 8, Toxic Air Pollutants.* Based on the current Air Model's results for H₂S and TRS (*See Ex. E, New Indy CAP, Section 5.3, p. 5-17, Table 5-6*), the level of methyl mercaptan would likely exceed its maximum acceptable ambient concentration at New Indy's property line. *See Ex. D, Rick Osa December 23, 2021 Report.*

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⁴ Full document available online: <https://scdhec.gov/sites/default/files/media/document/New-Indy%20Catawba%20Modeling%20Report%20FINAL.pdf>

This Supplement further demonstrates that Intervenor and their experts should be permitted to participate in crafting the additional measures New Indy must take. For these additional reasons, the Court should grant Intervenor's Motion.

WHEREFORE, Intervenor respectfully request that the Court grant the Motion to Intervene.

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