

Message

From: Akers, Brad (he/him/his) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=950FA7E55CDB4B5FB19C3DC51D2CE065-AKERS, DAVI]
Sent: 11/1/2024 8:11:19 PM
To: Khokhar, Wasim [wasim.khokhar@shelbycountyttn.gov]
Subject: FW: EPA R4 Response
Attachments: 24-05729-R04--DES_Correspondence_Michelle Taylor_24-05729-R04-DES_Michelle Taylor_xAI Turbines.pdf

FYI

From: Diaz, Denisse <Diaz.Denisse@epa.gov>
Sent: Friday, November 1, 2024 4:05 PM
To: Michelle.Taylor@shelbycountyttn.gov
Cc: Alexander, Kasia <Kasia.Alexander@shelbycountyttn.gov>; Benjamin, Lynorae <benjamin.lynorae@epa.gov>; Akers, Brad (he/him/his) <Akers.Brad@epa.gov>; Barnett, Nicholas (he/him/his) <Barnett.Nicholas@epa.gov>
Subject: EPA R4 Response

Good afternoon Dr. Taylor:

Attached please find our response to your August 16th and August 31st letters. Please, let us know if you have any questions or need further assistance.

Have a nice weekend.

Denisse

Denisse D. Diaz
Director
Air and Radiation Division
Cell: (404) 754-4804
Office: (404) 562-9248



REGION 4

ATLANTA, GA 30303

November 1, 2024

Michelle Taylor, MD, DrPH, MPA
Director-Health Officer
Shelby County Health Department
814 Jefferson Avenue
Memphis, Tennessee 38105

Dear Director Taylor:

Thank you for your August 16, 2024 and August 30, 2024, letters to the U.S. Environmental Protection Agency (EPA), Region 4 Air and Radiation Division with respect to the public inquiries the Shelby County Health Department (SCHD) has received regarding xAI's temporary gas-burning turbines in use at 3231 Paul R. Lowry Road, Memphis, TN, 38109. Please find the EPA Region 4's responses to your questions and requests for assistance below.

Regarding your first request that the EPA provide a health study of the impacts expected from the temporary emissions from the deployed portable turbines, the EPA notes that **at present, the Agency does not have enough information to make any assessment of potential local health impacts of emissions**. In 2020, the EPA conducted a Clean Air Act (CAA) section 112 residual risk review for the stationary combustion turbines source category. This review included a risk assessment based on air toxics emissions modeling of 253 combustion turbine facilities, including facilities many times larger than the combined capacity of the four 16 megawatt turbine units reportedly in use at xAI. The EPA determined that the air toxics risks for the sources reviewed were acceptable, and the current CAA section 112 standards applying to regulated turbines provide an ample margin of safety to protect public health.¹ While the EPA's risk review of the combustion turbine source category may be illustrative, only a risk assessment based on site-specific information could confirm that the same conclusions would apply to operations at xAI. A risk assessment is best supported with monitoring or emissions modeling information, but no relevant monitoring data or emissions modeling information for this specific situation has been provided to the EPA at this time.

One path SCHD could take would be to require that the facility conduct ambient air modeling to generate information for a risk screening. The EPA's Office of Air Quality Planning and Standards (OAQPS) has developed a set of health-protective limits for long-term (chronic) and short-term (acute) inhalation exposures² that are used to support dose-response and hazard identification for estimating

¹ See <https://www.govinfo.gov/content/pkg/FR-2020-03-09/pdf/2020-02714.pdf>

² See <https://www.epa.gov/fera/dose-response-assessment-assessing-health-risks-associated-exposure-hazardous-air-pollutants>

the risk of short- and long-term health effects. Given that these emissions are temporary, it would be most appropriate to compare modeled concentrations of anticipated hazardous air pollutants (HAPs) with the dose-response values for acute (short-term) effects. It is the EPA's understanding that the ongoing infrastructure project to provide long-term power supply to this facility is expected to be completed, and that the turbines are expected to cease operations, in the next few months. Please let us know if you have any updated information on the timeline for the deployment of these turbines.

Regarding your request that the EPA Region 4 confirm that the portable combustion turbines are mobile sources and that no stationary source permits are required, the Agency acknowledges that the EPA Region 4 permitting staff previously consulted with SCHD permitting staff on this situation. Per SCHD staff's request, the EPA staff provided informal feedback during this brief consultation. The regulatory requests in your August 16, and August 30, 2024, letters, trigger a formal review process by which the EPA will conduct a Regulatory Interpretation. The EPA processes formal requests for Regulatory Interpretation in accordance with the Process Manual for requests under CAA section 111(b), 111(d), 112, and 129.³ The conclusions of this review process will be detailed in a formal response letter to you that outlines the Regulatory Interpretation. To proceed with this review, the EPA will need more specific information about the generator units operating at the xAI site. We will be following up with your staff about the information that the Agency needs.

We will work closely with EPA Headquarters and keep you apprised of the status of the formal Regulatory Interpretation. If you have any additional questions, please contact Brad Akers of my staff at (404) 562-9089 or by email at akers.brad@epa.gov, or Ryan Brown at (404) 562-9147 or by email at brown.ryan@epa.gov.

Sincerely,

DENISSE
DIAZ

 Digitally signed by
DENISSE DIAZ
Date: 2024.11.01
15:48:47 -04'00'

Denisse D. Diaz
Director
Air and Radiation Division

³ See <https://www.epa.gov/title-v-operating-permits/epa-process-manual-caa-requests-under-111b-111d-112-and-129>

Message

From: Akers, Brad (he/him/his) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=950FA7E55CDB4B5FB19C3DC51D2CE065-AKERS, DAVI]
Sent: 11/13/2024 3:22:52 PM
To: Khokhar, Wasim [wasim.khokhar@shelbycountyttn.gov]
CC: Carpenter, Jacob (he/him/his) [Carpenter.Jacob@epa.gov]; Brown, Ryan [Brown.Ryan@epa.gov]; Zhang, Henian [Zhang.Henian@epa.gov]; Carpenter, Jacob (he/him/his) [Carpenter.Jacob@epa.gov]; Brown, Ryan [Brown.Ryan@epa.gov]; Zhang, Henian [Zhang.Henian@epa.gov]
Subject: Re: Regulatory Interpretation - information needs

Thanks, Wasim. Jake and Ryan and I will be at Metro 4/ SESARM in Richmond next week, so we would be happy to talk further there as well.

Brad

On Nov 13, 2024, at 8:20 AM, Khokhar, Wasim <wasim.khokhar@shelbycountyttn.gov> wrote:

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Hi Jake,

I will try to get this information.

Wasim Khokhar
Technical Manager – Air Pollution Control
Shelby County Health Department
1826 Sycamore View Road
Memphis, TN 38134
Office: (901) 222-9587
Email: wasim.khokhar@shelbycountyttn.gov

Website: www.shelbytnhealth.com
Twitter: www.twitter.com/ShelbyTNHealth
Facebook: www.facebook.com/ShelbyTNHealth
Instagram: www.instagram.com/ShelbyTNHealth

<image001.png>

From: Carpenter, Jacob (he/him/his) <Carpenter.Jacob@epa.gov>
Sent: Wednesday, November 13, 2024 6:40 AM
To: Khokhar, Wasim <Wasim.Khokhar@shelbycountyttn.gov>
Cc: Akers, Brad (he/him/his) <Akers.Brad@epa.gov>; Brown, Ryan <Brown.Ryan@epa.gov>; Zhang, Henian <Zhang.Henian@epa.gov>
Subject: RE: Regulatory Interpretation - information needs

[This EMAIL was not sent from a Shelby County Government email address. Please use caution.]

Hi Wasim,

If not included in specifications documentation or technical literature, can you also provide CAP and HAP emissions information for each type of generator in operation?

Thank you!
Jake

Jacob D. (Jake) Carpenter

Environmental Engineer | Air Toxics Coordinator | Air and Radiation Division

U.S. Environmental Protection Agency, Region 4 | 61 Forsyth Street, SW | Atlanta, GA 30303

Voice: 404-562-9039 | Fax: 404-562-9066 | Email: carpenter.jacob@epa.gov

From: Khokhar, Wasim <Wasim.Khokhar@shelbycountyttn.gov>

Sent: Tuesday, November 12, 2024 1:53 PM

To: Carpenter, Jacob (he/him/his) <Carpenter.Jacob@epa.gov>

Cc: Akers, Brad (he/him/his) <Akers.Brad@epa.gov>; Brown, Ryan <Brown.Ryan@epa.gov>; Zhang, Henian <Zhang.Henian@epa.gov>

Subject: RE: Regulatory Interpretation - information needs



Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Hi Jake,

We will work with the company to get this information for you.

Wasim Khokhar

Technical Manager – Air Pollution Control

Shelby County Health Department

1826 Sycamore View Road

Memphis, TN 38134

Office: (901) 222-9587

Email: wasim.khokhar@shelbycountyttn.gov

Website: www.shelbytnhealth.com

Twitter: www.twitter.com/ShelbyTNHealth

Facebook: www.facebook.com/ShelbyTNHealth

Instagram: www.instagram.com/ShelbyTNHealth

<image001.png>

From: Carpenter, Jacob (he/him/his) <Carpenter.Jacob@epa.gov>

Sent: Wednesday, November 6, 2024 3:51 PM

To: Khokhar, Wasim <Wasim.Khokhar@shelbycountyttn.gov>

Cc: Akers, Brad (he/him/his) <Akers.Brad@epa.gov>; Brown, Ryan <Brown.Ryan@epa.gov>; Zhang, Henian <Zhang.Henian@epa.gov>

Subject: Regulatory Interpretation - information needs

[This EMAIL was not sent from a Shelby County Government email address. Please use caution.]

Hi Wasim,

Following up on EPA R4's letter to Michelle Taylor last week, we're looking at the requests to EPA from SCHD regarding the temporary generators at xAI. We've reviewed the information provided by SELC in its letter to SCHD and need to validate some details before we can continue with our review process. We'll likely be following up with more questions, but first we would like to confirm exactly what generator units are operating at the facility. Can you please provide a list of all of the generators onsite, including for each:

1. Type of generator (RICE, combustion turbine, etc.)
2. Fuel (SELC identified all as natural gas)
3. Manufacturer / Model
4. Rated capacity (MW)
5. Please provide any spec sheets or technical literature available on each make/model

Feel free to reach out - I'd be happy to discuss.

Thanks,

Jake

Jacob D. (Jake) Carpenter

Environmental Engineer | Air Toxics Coordinator | Air and Radiation Division

U.S. Environmental Protection Agency, Region 4 | 61 Forsyth Street, SW | Atlanta, GA 30303

Voice: 404-562-9039 | Fax: 404-562-9066 | Email: carpenter.jacob@epa.gov