

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Toby Baker, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

March 19, 2019

The Honorable Eddie Bernice Johnson  
Chairwoman, House Committee on Science, Space, and Technology  
2321 Rayburn House Office Building  
Washington, D.C. 20515-6301

The Honorable Lizzie Fletcher  
House Committee on Science, Space, and Technology  
Chair, Subcommittee on the Environment  
2321 Rayburn House Office Building  
Washington, D.C. 20515-6301

The Honorable Mikie Sherrill  
House Committee on Science, Space, and Technology  
Chairwoman, Subcommittee on Investigations and Oversight  
2321 Rayburn House Office Building  
Washington, D.C. 20515-6301

Dear Committee and Subcommittee Chairs:

We appreciate this opportunity to respond to the concerns and request for documents expressed in your March 6 letter.

The Texas Commission on Environmental Quality (TCEQ) agrees wholeheartedly that Texans should expect their government to provide an "all hands on deck" response to disaster and that health concerns should be fully investigated. These activities are central to our agency's mission and culture.

With respect to Hurricane Harvey, TCEQ along with EPA and numerous other federal, state, and local partners provided an "all hands on deck" response—as we have planned and routinely practice with our partner agencies. The multi-faceted response entailed assessing drinking water and wastewater systems serving more than 11 million people and helping to restore these services to the nearly 400,000 people who lost them, gathering hundreds of hazardous material drums and tanks that were displaced by floodwaters, evaluating the integrity of dams as well as engineering controls at landfills and superfund sites, helping ensure the proper management and disposal of more than 13

million cubic yards of debris from the hundreds of thousands of homes that were damaged or destroyed, responding to industrial crises, and mounting robust investigations of health concerns—including with respect to air emissions.<sup>1</sup>

As it relates to concerns about air quality, our emergency response teams worked night and day, at times alongside the first responders, logging hundreds of hours in investigating reported releases and in seeking out unreported or undetected releases. The response teams employed handheld and mobile instruments to monitor for air pollutants in neighborhoods and at industrial fence lines and conducted aerial surveys to identify potential facility-level releases.

In addition, TCEQ and its partners maintained operations at no fewer than 24 Houston-area stationary monitors for the duration of the hurricane and its aftermath.<sup>2</sup> Monitors that had been shut down or damaged were urgently repaired and redeployed. Despite ongoing widespread flooding, road closures, and other hazards from Harvey's record rainfall, most of the Houston-area monitors were back online within just a few days of Harvey's passing. TCEQ kept the public informed by posting air monitoring data in near real-time to its *Hurricane Harvey* and its *Air Quality and Monitoring* websites.<sup>3</sup>

And so the suggestion by the *Los Angeles Times* that the State of Texas and EPA would rather not know about potential toxic chemical releases that could have been impacting our communities and first responders is false. TCEQ is keenly focused on gathering actionable data to protect public health. That was even more true in Harvey's aftermath. As described, TCEQ rushed to deploy and redeploy an array of assets designed to identify chemical releases and assess the risks to public health.

NASA's proposed Atmospheric Tomography Mission (ATom) test flight over Houston, however, was not designed to support TCEQ's efforts to protect public health in the aftermath of Hurricane Harvey. The flight was ad hoc to NASA's research mission. It would have collected data for a mere three hours and would have been conducted more than two weeks after Harvey had blown through Houston. By that time, 97% of the Houston-area monitors were back online and TCEQ had already collected over a week's

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<sup>1</sup> For additional details, see TCEQ's Hurricane Harvey After Action Review Report, available on TCEQ's Hurricane Harvey website, <https://www.tceq.texas.gov/response/hurricanes/hurricane-harvey>, and included with this response (Bates TCEQ-0015 to TCEQ-0032).

<sup>2</sup> Data collection was continuous at these monitors, except for isolated gaps not uncommon to normal operations. In the Houston area, TCEQ receives data from a network of 61 stationary monitors, 26 of which it owns and operates. TCEQ temporarily shut down all but two of its monitors as part of a wider effort to protect state assets from Harvey's onslaught—assets important to Texas's recovery.

<sup>3</sup> It remains archived there. See <https://www.tceq.texas.gov/response/hurricanes/air-quality-reports> and <https://www.tceq.texas.gov/airquality/monops/air-mon>.

worth of data, in addition to information from neighborhood and fence-line sampling. All of it was ground-level data calibrated to identify and evaluate potential public health risks.

More to the point, the proposed ATom flight—for all of its sophistication—was not equipped to identify facility-level releases or assess risks to public health. Based on the information NASA provided, TCEQ understood that the flight would lack these capabilities. Accordingly, TCEQ shared with both EPA and NASA its assessment that the ATom flight would not be useful to its disaster response efforts. EPA agreed, and NASA expressed no disagreement.

TCEQ appreciates NASA’s significant contributions in response to Hurricane Harvey, especially in providing critical information such as precipitation measurements, flood mapping, and short-term regional scale forecasts. TCEQ also has a deep appreciation for the quality of NASA’s scientific research. TCEQ has worked in support of NASA’s research objectives and on mutual objectives for nearly two decades. This includes, for example, research on atmospheric photochemistry and, more recently, efforts to improve NASA’s satellite-based air quality observations. TCEQ has never stood in the way of NASA’s scientific research.

And that is precisely what the proposed ATom flight was: a scientific research mission that was intended to add three hours of sampling data to an existing dataset to ultimately support a more complete understanding of atmospheric chemistry. The flight had research value. That it did not go forward was a lost research opportunity—but did not, in Harvey’s aftermath, compromise public health.

The *Times* article, and comments critical of EPA and TCEQ that have followed, assume—without examination—that data collected by the flight would have been useful in identifying threats to public health in the aftermath of Hurricane Harvey. But TCEQ did examine whether the data would be useful.<sup>4</sup>

Based on the information NASA provided, TCEQ determined that the data would not be useful for identifying threats to public health for two independent reasons: (1) the data would be collected at an altitude of 1,000 feet or more and at a regional-scale and thus could not identify emission sources or neighborhoods at risk; and (2) given the sampling methods (e.g., location and duration), the data could not be used to determine potential health effects, that is whether any measured concentration is potentially harmful or benign.

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<sup>4</sup> See, e.g., Email from Michael Honeycutt, TCEQ to David Brymer, TCEQ, FW: *More information about the proposed DC-8 flight over Southeastern TX for Thursday September 14<sup>th</sup>* (Sept. 11, 2017) (Bates TCEQ-0005) (asking, “Would this be useful?”).

NASA Program Manager Barry Lefer was clear: “The [NASA] science team thought that it could be *interesting scientifically* to sample the atmosphere of southeastern Texas as the region is recovering from Hurricane Harvey.”<sup>5</sup> Mr. Lefer further explained:

The instrument payload . . . is not optimized for urban sampling, rather, for the opposite). [sic] \* \* \* The design of this flight is regional in scope. \* \* \* The ATom DC-8 will not (firstly, *because it is not able to*) sample emissions from facilities in any effective way. \* \* \* Facility emissions are not the focus of the flight that we have planned.<sup>6</sup>

The *Times* article quotes a researcher from the National Oceanic and Atmospheric Administration opining that “[i]t’s totally possible we’d have found nothing at all to be concerned about . . . [b]ut at least we’d have known that . . . without a doubt.”<sup>7</sup> However, the absence of chemicals at 1,000 or 10,000 feet says nothing about public health risks, which occur at ground-level. Nor would the presence of chemicals.

In addition to lacking utility to TCEQ’s response mission, TCEQ had some concern that NASA’s proposed flight had the potential to distract its efforts and place additional burdens on agency resources, both in terms of coordination and in evaluating, interpreting, and explaining data that was incapable of speaking to exposure or health risk. Internal TCEQ communications express the agency’s priority: “Right now, I think we’re more interested in finding leaking sources than research.”<sup>8</sup>

As we now reflect on an assessment that TCEQ made over 18 months ago, in response to criticisms that first arrived this month, we still believe it was appropriate in the aftermath of Hurricane Harvey for TCEQ to prioritize its efforts to discover and address public health threats—specifically those from leaking sources.

It is certainly reasonable to reexamine the question of ATom’s capabilities and to reevaluate TCEQ’s assessment of the ATom flight’s utility to its disaster response mission. Accordingly, we welcome any input from NASA on whether a similarly-equipped ATom flight could provide actionable information in support of a disaster response mission or whether the ATom DC-8 could be re-equipped for disaster response missions. Among other topics, this could address source identification capabilities, whether the data would

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<sup>5</sup> Email from Barry Lefer, Program Manager, NASA, to David Gray, EPA and Michael Honeycutt, TCEQ, *More information about the proposed DC-8 flight over Southeastern TX for Thursday September 14<sup>th</sup>* (Sept. 10, 2017) (Bates TCEQ-0003) (emphasis added).

<sup>6</sup> *Id.* (emphasis added).

<sup>7</sup> Susanne Rust and Louis Sahagun, *Post-Hurricane Harvey, NASA tried to fly a pollution-spotting plane over Houston. The EPA said no*, L.A. Times, Mar. 5, 2019 (Bates TCEQ-0009).

<sup>8</sup> Honeycutt, *supra* n. 4 (Bates TCEQ-0005).

support evaluation against public health criteria (e.g., with appropriate location and duration characteristics), and whether the DC-8 could be on-scene sooner and for more than three hours.

The *Times* characterization of TCEQ as the “key decision-maker”<sup>9</sup> in the cancellation of NASA’s flight is inconsistent with our understanding of TCEQ’s authority and the facts as they unfolded. The flight’s research value is not diminished by TCEQ’s determination that it could not advance the disaster response efforts. To our knowledge, NASA does not require another agency’s permission to carry out its research—and certainly not TCEQ’s. As reported by the *Times*, the chief scientist for NASA’s Earth Sciences Division stated as much: “NASA does NOT need EPA approval . . . . [NASA] certainly should notify and potentially coordinate, but we don’t need approval.”<sup>10</sup> In any event, TCEQ did not tell NASA to stay away or otherwise prevent the ATom flight.

Again, we appreciate this opportunity to address the Committee’s concerns. To that end, following a thorough search, we are providing all documents that we have identified as responsive to your request.<sup>11</sup> Please let us know if we can provide any additional information useful to the Committee’s resolution of this matter.

Finally, to gain a true sense of TCEQ’s values and dispel the profound mischaracterizations of who we are and how we approach our mission to protect our fellow Texans, we invite you to come visit with us. We welcome you to meet with some of the many hundreds of outstanding men and women at TCEQ who worked tirelessly to protect Texans’ health and critical infrastructure in the face of Harvey’s unprecedented destruction.

We also invite you and your staff to join us for our annual multi-agency hurricane preparedness exercise. This full-scale exercise, which will take place on May 6<sup>th</sup> through the 10<sup>th</sup>, will simulate landfall of a category 4 hurricane along the Texas coast. We hope you can join us, and we look forward to working with you.

Sincerely,



Toby Baker  
TCEQ, Executive Director



Jon Niermann  
TCEQ, Chairman

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<sup>9</sup> Rust and Sahagun, *supra* n. 7 (Bates TCEQ-0013).

<sup>10</sup> *Id.*

<sup>11</sup> In addition to the responsive documents (Bates TCEQ-0033 to TCEQ-0311), we have included, for reference, certain materials cited in this letter (Bates TCEQ-0003 to TCEQ-0032).