Dear Mr. Sarno:

I write today in response to your March correspondence to staff at the New York State Department of Environmental Conservation (NYS DEC) and the New York State Department of Health (NYS DOH) relating to the ongoing environmental cleanup efforts at the Former Citizens Manufactured Gas Plant site (224012, C224012, and C224012B). Please see the following responses.

Gowanus CAG Land Use Committee Questions

1) On November 8th, 2021, the use of Coal Tar was banned in the State of New York due to it being a "proven human carcinogen" and "sulfur dioxide and nitric oxide are known respiratory irritants." Here is the link to the Governor Hochul’s announcement: https://www.governor.ny.gov/news/governor-hochul-signs-package-bills-prohibiting-use-grade-6-fuel-oil-and-use-pavement-products

a) Based on the recent passage of this law, will the NYS DOH and NYS DEC be adjusting what is considered to be safe exposure levels to coal tar and coal tar vapors for those working, living and attending school near the 3 former Gowanus Canal MGP sites?

RESPONSE: In addition to cleaning up MGP sites statewide that result in reducing potential exposures to coal tar contamination, New York State has taken action to prevent a known source of environmental contamination from coal tar chemicals. The bill (Legislation S.4095b/A.518a), which passed in November 2021, helps reduce future environmental contamination and exposure to the chemicals found in coal tar by eliminating the use of pavement products containing coal tar in New York State. The remediation of sites and the recently passed legislation have the same goal of reducing public exposure to the chemicals in coal tar. The toxicity of the chemicals in coal tar has been well-documented in the scientific literature. If new toxicity information on these chemicals becomes available, this information will be reviewed by the NYS DOH to evaluate if changes to Community Air Monitoring Plan action levels, guidelines or standards are needed.
2) Please provide current specific health standards for human exposure for the following contaminants in light of the fact that construction will be occurring at and around all 3 of the former MGP sites in the near future. From the below list of toxins, please delineate safe exposure levels for each of the following categories: a) Children, b) Adults, c) Elderly and d) those who have cancer, are disabled, immunocompromised or suffer from respiratory issues.

1,2,4-trimethylbenzene  
benzo(a)anthracene  
ethylbenzene  
tetrachloroethene (PCE)  
benzo(a)pyrene  
benzo(b)fluoranthene  
copper  
xylene (mixed)  
benzene  
chrysene  

1,3,5-trimethylbenzene  
lead  
polycyclic aromatic hydrocarbons (PAHS),  
total benzene,  
toluene,  
ethylbenzene and xylenes (BTEX)  
coal tar

Please include any other contaminants that are not listed above that have been discovered at or near the 3 former MGP sites.

RESPONSE: The air monitors used as part of each site's Community Air Monitoring Plan (CAMP) report average air levels of total VOCs and dust (total airborne particulate matter [PM]) every 15 minutes. The CAMP also specifies action levels for total VOCs and PM. These action levels are not chemical specific health-based standards, rather, they represent thresholds at which site-related work is beginning to impact air at the worksite perimeter. When the downwind monitor exceeds the action level for total VOCs or PM compared to what is being reported at the upwind monitor (the background level), measures are taken at the worksite to bring total VOCs or PM back down below the action level. Stopping remedial work and re-evaluating site conditions based on a 15-minute exceedance of the action levels at the site perimeter helps ensure that elevated air levels of VOCs and dust are unlikely to travel offsite and persist on a long-term basis. The CAMP is a health protective risk management tool to identify a fence line impact from ground intrusive activities at the site, which is aimed at reducing the potential for long term exposure in the community. There are no standards for any of these contaminants that are relevant in this context.

3) Given the migration of coal tar from the three former MGP sites, and that there are residential buildings in very close proximity to the former Citizens MGP and Fulton MGP sites, are there currently plans to install air monitoring devices in the basements of these homes to alert residents of any vapor intrusion from the coal tar and other toxic contaminants that may be present under their foundations?

RESPONSE: NYS DOH has reviewed existing soil vapor intrusion and soil gas data related to the Former Citizens MGP and Fulton MGP sites and has determined that based
on these data, no actions are needed to address soil vapor intrusion from site-contaminants. However, based on the information gathered thus far in the Gowanus Canal area and the soil vapor concerns found in some existing buildings near the canal, NYSDEC and NYSDOH have committed to completing a Gowanus Area Wide Soil Vapor Intrusion Study that will encompass the areas located adjacent to the Former MGP sites. It is anticipated that this indoor air sampling will be begin in the 2023-2024 heating season.

4) **DEC has recently acknowledged, in its letter of December 22, 2022, to National Grid**, that “the coal tar plume at the Citizens Site is deeper and more widespread than previously anticipated.”

a) **Can DEC provide more information about its size and migration, and whether it can or will endanger residents, children, workers, properties and/or the general public’s welfare?**

**RESPONSE:** NYSDEC is working with and providing oversight of Brownfield Cleanup Applicants and National Grid on the clean-up of the Citizens site. The *Remedial Action Work Plan, Decision Document,* and *Site Management Plan* are each designed to clearly lay out requirements during remediation and after the implementation of the remedy is complete to prevent non-aqueous phase liquid (NAPL)/coal tar at the Citizens Site from threatening public health or the environment. Since the site is fenced and covered by two feet of crushed stone, people will not come into contact with site related soil and groundwater contamination unless they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination.

b) **In the places where the PRPs have installed deep bulkheads (cutoff walls), we understand that coal tar is being collected in recovery wells. Please specify where these wells have been installed or planned to be installed, how do they function and who specifically is monitoring them to protect nearby residents, children, workers, properties, and the general public?**

**RESPONSE:** The wells are traditionally installed several feet inland of cut-off walls/new bulkheads. Their specific location is dependent on known locations of coal tar that is mobile, access around underground utilities, and locations that would provide minimal disruption to use of the space where the wells are located. During the installation of the wells, air monitoring is performed to ensure that the public is not exposed to volatile organic compounds (VOC) that may be related to the tar. The wells are a passive collection system. Tar flows into the wells at depth through screens and is collected in a sump at the bottom of the well, below the screens. The wells are regularly monitored, and tar is removed as the sumps fill. Depending on the characteristics of the tar, space constraints among other considerations, that removal may be done via automatic pumps and piping to underground vaults for removal and off-site disposal. Otherwise, workers will remove the tar manually from each well. VOC air monitoring will be performed during tar removal.
5) In light of DEC’s recommendation in its December 22, 2022, letter that “...National Grid should prepare a supplemental area-wide off-site investigation work plan that, at a minimum, includes accessible street rights-of-way (ROW) to fill data gaps...” and National Grid’s concession that “the contamination is more widespread than originally anticipated”:

Is National Grid preparing a supplemental area-wide off-site investigation work plan that, at a minimum, includes accessible street ROWs to fill data gaps?

**RESPONSE:** Yes, DEC requested that National Grid complete the offsite investigation. Should National Grid decline to do the work, DEC is prepared to complete the work.

Assuming this is taking place:

a) Which entity is in charge of determining the area’s scope?

**RESPONSE:** DEC is the lead agency for the Citizens and Fulton MGP Site Offsite Investigations. DEC is coordinating with EPA to confirm that the remedies at these MGP sites, along with Brownfield Cleanup Sites near the canal, will not negatively impact the canal remedy.

b) Will DEC specifically define the perimeter of an area wide off-site investigation?

**RESPONSE:** Yes, DEC will determine the extent of any necessary offsite investigations.

c) Will the community have the ability/opportunity to comment on the area wide off-site investigation perimeter before finalization and implementation?

**RESPONSE:** In general, for sites under an order on consent, remedial investigation work plans do not have a public comment requirement. The approved offsite investigation work plan will be made available to the public through DECInfo Locator. Please note that while a general planned study area may be shown on a map, DEC follows the data. This means that sampling will continue to “step-out” out from the MGP sites until the extent of contamination is determined, which may be within or outside of the initial planned study area boundary.

d) Will a National Grid investigative plan need EPA’s approval as well as DEC’s?

**RESPONSE:** DEC will provide the draft offsite investigation work plan to EPA for comment and review.

e) Has DEC given National Grid a deadline to submit its plan?

**RESPONSE:** DEC has established the scope for the initial phase of the investigation and have provided requirements to National Grid.
f)  What is the deadline for implementation?

**RESPONSE:** DEC anticipates field work to begin on the offsite investigation in mid-2023.

g)  Will the complete results of the investigation be shared with the community?

**RESPONSE:** Yes, an offsite investigation report will be prepared and shared with the community.

6)  The State and EPA have stated that they are unable to fully extract the coal tar and other toxic materials from the various sites along the Gowanus Canal. Of the numerous sites on which construction either has begun or will soon begin:

a)  Will there be air and noise monitoring of these sites before and during construction and will the public be able to readily access and interpret the monitoring data live?

**RESPONSE:** Site specific Community Air Monitoring Program(s) (CAMP) (VOC and dust monitoring) will be implemented during all intrusive remedial work. Daily reports, which includes the CAMP data, will be posted to DECInfo Locator upon receipt from the remedial engineering firm. DEC does not regulate noise on construction sites. That is the purview of NYC [see Construction Noise Rules & Regulations - DEP (nyc.gov)].

b)  Will such monitoring continue after construction is completed? For how long?

**RESPONSE:** The CAMP is only applicable to ground intrusive work conducted under a remedial work plan. Upon completion of remedial work, CAMP monitoring is no longer required. However, the long-term post-remediation Site Management Plan (SMP) will guide future activities and requirements to ensure the site remedy remains protective as designed. Should future intrusive work on the site be performed, CAMP monitoring would be required during that intrusive work.

7)  For many years the CAG has requested EPA, DEC, and/or DEP perform a hydrology study at the Gowanus Rezoning sites.

a)  Have all underground streams in the Gowanus area been tested for contamination and pollution? Has this been done prior to any developers’ work on the various sites?

**RESPONSE:** All sites within a DEC remedial program are required to delineate the nature and extent of contamination on their site, including contamination present in groundwater. Responsible parties, such as National Grid, are required to determine the extent of off-site contamination as well.

b)  Is there any data as to whether the planned work will redirect the underground streams that flow among the CSOs and coal tar plumes?
RESPONSE: Through appropriate remedial design and long-term monitoring, all sites within in a DEC remedial program are required to demonstrate and ensure that their remedy will not spread contamination in any media, including groundwater. The off-site MGP investigation discussed above will provide this type of data.

c) If contamination is found and EPA’s Chief Engineer has determined that the conditions are unsafe, what entity would issue a “Stop Work Order”?

RESPONSE: If a site is in a DEC remedial program, DEC has the authority to stop work. Should another Federal or State agency note unsafe conditions, they will notify DEC who will stop work as appropriate.

d) Going forward, how can the community be sure that dangerous conditions will be responded to expeditiously and by what entity?

RESPONSE: DEC has and continues to ensure that all sites within a DEC remedial program protect human health and the environment. DEC should be notified of observed conditions of concern.

Please feel free to reach out to the Former Citizens MGP site’s Project Manager Kati Liloia by email at Kati.Liloia@dec.ny.gov or by phone at 518-402-9612.

Sincerely,

Andrew Guglielmi
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Division Director
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