From City Councilman Keith Powers to Melanie La Rocca, Commissioner, DOB

Commissioner La Rocca:

Thank you for engaging with my colleagues and I on the CHP plant proposals in Stuyvesant Town. As you know, the prospect of commercial power plants being built within our residential complex is alarming to many tenants, myself included.

We eagerly await a response to the letter we sent you on November 4th regarding DOB’s interpretation of the "accessory use" definition that Stuyvesant Town management is using to justify the construction on the CHP plants.

Additionally, the Stuyvesant Town-Peter Cooper Village Tenants Association has asked me to relay the attached report it has commissioned from George Janes. The Tenants Association has collected signatures from hundreds of tenants who have concerns about the approval of the CHP plants that they will likely share with you in the near future.

I look forward to discussing these matters further once DOB is able to review these materials.

Thanks,
Keith
November 22, 2021

Ms. Melanie La Rocca  
Commissioner  
New York City Department of Buildings  
280 Broadway  
New York, NY 10007  

Re: Stuyvesant Town combined heat and power plants—legality of zoning and accessory use

Dear Commissioner La Rocca:

The Stuyvesant Town–Peter Cooper Village Tenants Association (“TA”) is extremely concerned about your agency's position that the two combined heat and power plants on site qualify as accessory use. We continue to be joined in this by our elected representatives at every level.

These continued concerns over your definition of accessory use were expressed by Congresswoman Carolyn Maloney, New York State Senator Brad Hoylman, New York State Assembly Member Harvey Epstein, New York City Councilman Keith Powers, and Manhattan Borough President Gale Brewer in a letter dated November 4, 2021, which you have received.

The TA, independently, retained George M. Janes of George M. Janes & Associates as our zoning expert to assess whether the CHPs qualify as accessory use. Mr. Janes has expertise in zoning, simulation and visualization, and statistics and quantitative modeling, and has more than 20 years of experience in these fields. His clients include the City of New York as well as local governments, community boards, and community groups.

Mr. Janes has produced a report, which we have attached, that expresses serious concerns regarding the legality of your agency's approval of the CHPs as accessory use. We are submitting this to support the contentions expressed in the November 4 letter.

The TA is further alarmed by the issue of environmental justice, which affects our neighbors to the south, where there is much NYCHA housing, and elsewhere. The city’s own data document the bad air quality and bad health outcomes as a result.

Further, our community and our nearby neighbors stand to be seriously impacted by the operation of plants that will be in contravention of our right to clean air, newly approved as a state constitutional amendment by the voters of New York State, and that will burn fossil fuel, universally acknowledged as detrimental to our climate’s health and ours.
Based on our reading of the definition of accessory use and those of our elected representatives and expert George Janes, we call on you to deny approvals of these additional pollutants to our neighborhood.

Sincerely,

Susan Steinberg
President

cc: Commissioner Basil Seggos, NYC Department of Environmental Conservation
Commissioner Vincent Sapienza, NYC Department of Environmental Protection
Congresswoman Carolyn Maloney
NYS Senator Brad Hoylman
NYS Assembly Member Harvey Epstein
NYC Council Member Keith Powers
Manhattan Borough President Gale Brewer
Corey Johnson, Speaker, New York City Council
Raju Mann, Director, Land Use, New York City Council
Caitlyn P. Nichols, NYSDEC

Att.
November 8, 2021

Melanie La Rocca
Commissioner
Department of Buildings
280 Broadway
New York, NY 10007

RE: Zoning compliance 245 Avenue C
DOB job number: 123805383

Dear Commissioner La Rocca:

On behalf of concerned neighbors, I have examined your approval of the combined heat and power generating plant proposed on the campus of Stuyvesant Town. I have concerns regarding the legality of your approval of this application.

As you know, I’m an urban planner who commonly reviews Department of Buildings (DOB) approvals for zoning compliance.

**Project summary and background**

The applicant has constructed a structure to house a boiler room, generator room, switch gear room, transformer room and battery room located on top of an existing accessory parking garage on Avenue C in Stuyvesant Town. The applicant has installed boilers and combined heat and power (CHP) units in this space.

The job was filed as an Alt 1 and is located between two of the residential buildings on the Stuyvesant Town campus, buildings 33 and 35. The zoning district is R7-2. The site plan and axonometric diagram that are a part of the zoning diagram for the project are below:
Plan view from ZD1

Axonometric view from ZD1
As shown in the plan, the addition is abutting two residential apartment buildings. The project has been permitted and built but it is not yet operational. The following shows before and after images of the addition and alteration:

![Google Maps images. November 2017 (left) and July 2021 (right).](image)

On January 19, 2021, after the Department issued its approvals, several elected officials wrote to your office to question the approval of the proposed use as accessory to the residential use on the site. You responded to the elected officials on April 20, 2021, writing that you were issuing an Intent to Revoke (INR) the applicant’s zoning approval. Your response explained that the “Applicant must respond to the Letter of Intent to Revoke by demonstrating that the electricity and heat generated by the CHP plant is distributed to the users within the same zoning lot.” According to information posted on BIS, however, the Department had already lifted the Intent to Revoke on April 16, 2021, four days before you sent the letter to elected officials. You also wrote in that letter that “[a] standalone CHP plant is considered zoning use group 17C electric utility substation.”

After the INR was lifted, elected officials wrote to your office on June 16 reiterating their concerns about the project, with a special focus on your decision to approve the project as accessory to the residential use on site. You responded to the elected officials’ letter on July 21, writing that the facility “will generate its own electricity and rely on the existing grid for distribution and is sized to generate no more electricity than what is needed for peak consumption on the zoning lot.” You wrote this as a part of your justification to find the use accessory.

**Zoning Concerns**
I have several concerns about the zoning approval for this project, including, but not exclusively, the finding that this CHP is accessory to the residential use. My zoning concerns are as follows:

1. **A standalone CHP is not UG 17c**
   In your April 20, 2021 letter, you wrote that a CHP is an electrical substation, which is UG 17c. This cannot be accurate. Electrical substations step up or step down the voltage of an existing electric current. They do not generate electrical
power, rather they are a part of a distribution system for power that is already generated. A CHP may have an electrical substation to support the distribution of the power so generated, but it is primarily a power generating facility, which is UG 18b, “Electric power or steam generating plants.”

2. **This CHP has an unusual configuration. It cannot be considered an accessory use, like most other CHPs**

Many CHPs have been built and permitted in New York City over the past 50 years. The U.S. Department of Energy (DOE) has mapped them at [https://doe.icfwebservices.com/chp](https://doe.icfwebservices.com/chp) and a snapshot of that map appears below:

![Screen grab of DOE’s CHP system map](image)

CHPs are generally permitted as accessory to the primary use of the zoning lot. CHPs are typically designed to supply power directly to buildings to which they are accessory, by connecting to a power panel in the building or buildings they serve. Those that are powered with boilers, like Stuyvesant Town, are typically configured as follows:
This design shows that the usual and customary design for a CHP with a boiler directs power to both the building and to the grid. But in the vast majority, if not all installations of CHPs in our area, most of the power is backfed into the building’s power systems with only incidental amounts of excess power being fed into the grid. The fact that this system may supply trivial amounts of power to the public grid does not override its accessory nature.

This is not how the CHP at Stuyvesant Town is designed, which has no direct electrical connection to the buildings of Stuyvesant Town. Rather, it is more like the following:

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1 https://www.epa.gov/chp/what-chp  
2 While not a zoning issue, the price paid for electricity fed into the grid is much lower than the cost of electricity from ConEd. Consequently, this kind of configuration for a large-scale CHP is almost never in the interest of the applicant, which makes them unusual for more than just zoning reasons.
A generalized schematic of the CHP configuration at Stuyvesant Town

The CHP at Stuyvesant Town has no direct electrical connection to the buildings on the zoning lot. This difference between the Stuyvesant Town CHP and the typical CHP is critical: a direct connection to the buildings that constitute the primary use of the zoning lot is what makes most CHPs accessory. Without a direct connection, the CHP is UG 18, which cannot be placed in an R7-2 district.

From the wording of your July 21 letter, the fact that this CHP will not generate more power than the peak demand of Stuyvesant Town mattered in your decision-making. It should not have. What matters in determining accessory uses is who and what is being directly served. In that same letter, you acknowledge that the applicant intends to “rely on the existing grid for distribution” and the buildings of Stuyvesant Town will continue to rely upon that grid for all their electrical needs. Electricity distributed in such a manner only incidentally serves the buildings of Stuyvesant Town. Indeed, if the grid fails, Stuyvesant Town will not have power because the CHP is not designed as an accessory use serving Stuyvesant Town.

Again, CHPs are usually accessory uses, but this CHP, with a design that does not directly serve the primary use of the zoning lot, makes it non-accessory. The concept is perhaps best explained by another example of accessory uses in New York City. A 50-unit development can construct an accessory sewage disposal plant (ZR 12-10 (18) Accessory). Only those 50 units can be served by the accessory sewage treatment plant. If those 50 units hook up to the City’s sewage treatment system, and that plant starts taking in wastewater from elsewhere, it becomes a UG 18 sewage disposal plant. Who or what is being served by the

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ZR 12-10 Accessory use “is operated and maintained on the same #zoning lot# substantially for the benefit or convenience of the owners, occupants, employees, customers, or visitors of the principal #use#.”
accessory use matters. To be accessory, the use must directly serve the main use(s) of the zoning lot.

Commercial activities as accessory to a residential use are extremely limited in the Zoning Resolution. For instance, zoning explicitly allows the following as accessory uses:

- Newsstands that serve residents, as long as there are no exterior signs or displays;
- the sale of sod and dirt from a construction site
- parking where fees may be collected; and
- home occupations.

Solar energy systems are explicitly allowed but other types of power generating systems are not listed. That omission is notable as other industrial uses, like incinerators and sewage disposal plants, both UG 18 as stand-alone facilities like power generation, are both explicitly listed as accessory uses.

**Legislative intent**

New York City amended the Zoning Resolution in 2012, in part, to add solar energy systems to the Zoning Resolution. Classified as Use Group 6D when they were non-accessory, solar energy systems could be a permitted obstruction in open space, yards, and rooftops. Further, under the definition of accessory, they were explicitly added to uses that would be considered accessory. The City Planning Commission report regarding the recommendation for approval of this change stated: “excess energy generated through solar PV can be sold back to the grid through net metering.”

Evidently, the City decided that the Zoning Resolution needed to explicitly clarify the status of these systems. Note that it did not include “power generating systems” to the list of accessory uses. Instead, it added “solar energy systems.” The latter would have included CHPs of all types, but the legislature decided to identify only solar energy systems as an accessory use.

**If power systems do not need to serve the zoning lot, what are the consequences?**

The reason the Department hasn’t seen more proposals for CHPs designed to feed directly to the grid rather than to the main use of the zoning lot is likely because of economics. In New York State, when electricity is sold back into the grid, revenue generated by that sale is vastly less than the amount customers pay the electrical supplier for electricity consumed. Therefore, it is in applicants' interests...
interests to design their systems so that they are truly accessory: feeding electricity to the buildings on the campus they are located. But what happens if the rates for electricity sold into the grid increase and CHPs do not need to directly serve the buildings on site to qualify as accessory? That means that every substantial development, existing or new, becomes a potential site for a UG 18 power generating facility: a facility that generates electricity for the grid, and not the buildings where they are sited. That cannot be the intention of the term “accessory use” in the Zoning Resolution. Yet, if you take your interpretation that allowed the approval of the CHP at Stuyvesant Town as an accessory use to its logical conclusion, if the economics change, we will see many more such applications.

If the City wants to make UG 18 power generating facilities legal in residential districts, it needs to change the Zoning Resolution to allow unconnected CHPs as accessory uses, as it did for solar energy systems. It should not be relying upon a strained Department of Buildings interpretation of accessory use.

3. The structure holding the CHP does not comply with ZR 23-711

Completely independent of its classification as an accessory use, the bulk of approved structure does not comply with the bulk regulations of residential districts. Industrial buildings like this one do not normally have to comply with residential zoning regulations, but as an accessory residential use, this one does.

The facility has been located on top of an accessory parking garage and abuts buildings 33 and 35, which are two of the Stuyvesant Town apartment houses. The addition created a complying outer court with the residential buildings, both of which have legally required windows overlooking the outer court. The applicant claims that the building complies with ZR 23-861, and it does for the lower portion of the building. But once the addition no longer abuts with the neighboring buildings, it must comply with ZR 23-711. That is because ZR 23-82 instructs:

at any level at which two portions of a single #building# or #abutting buildings# on a single #zoning lot# are not connected one to the other, such portions shall be deemed to be two separate #buildings#, and the provisions set forth in Section 23-71 (Minimum Distance Between Buildings on a Single Zoning Lot) shall apply.

While the facility does abut the residential buildings, there is a portion of that facility that is not connected, and that portion must comply with 23-711, which regulates the spacing of buildings on the same zoning lot in residential districts.

The following diagram attempts to show where the building spacing rules of 23-711 apply.
The above image is the section from the applicant’s zoning diagram. It shows the new facility with dark lines and the existing garage in light lines. The support columns shown on the image are a part of the existing garage and they hold up the roof of that existing facility, which spans from building 33 to building 35. The new industrial addition sits on top of that roof.

On this diagram, my office has annotated dimensions. The roof of the addition slopes upward toward Avenue C. That portion of the building that does not abut buildings 33 and 35 is governed by the building spacing rules of 23-711 and is outlined in red in the above image.

ZR 23-711 requires that buildings on the same zoning lot be separated by a certain distance depending on their height and window/wall condition. The table providing those distances is reproduced below:
Building spacing table from 23-711. The topmost portion of the structure housing the CHP must be 35 feet from the other buildings on the zoning lot.

<table>
<thead>
<tr>
<th>Wall Condition*</th>
<th>25</th>
<th>35</th>
<th>40</th>
<th>50</th>
<th>Over 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall to Wall</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Wall to Window</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>Window to Window</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>55</td>
<td>60</td>
</tr>
</tbody>
</table>

Buildings 33 and 35 have legal windows overlooking this space, and so the row that needs to be referenced is “Wall to Window.” As measured from the roof connecting the two buildings, the addition is 31.75 feet. The building spacing table of 23-711 tells us that at heights greater than 25 feet and less than 35 feet, buildings on the same zoning lot must be 35 feet apart at their closest. The addition, however, is placed just 31.5 and 31.08 feet from the building walls of building 33 and 35, and so is, therefore, too close to those buildings.

This is not an issue of interpretation: the building as approved is illegal under 23-711, as the topmost portion is too close to buildings 33 and 35. You should instruct the applicant to alter the building so that it complies with 23-711, as it has not yet been occupied.

4. Open space and FAR compliance have not been confirmed

Stuyvesant Town is very close to being built out under the R7-2 district regulations. The district allows a variable amount of floor area depending on the amount of open space provided, and Stuyvesant Town is near its maximum floor area ratio and required open space. Consequently, a reduction in open space, which the addition creates, needs to be closely evaluated to determine if it creates or increases a non-compliance. The applicant should have provided an as-built building survey to the Department, showing how much zoning floor area occupies the lot, and a survey of the qualifying residential open space to demonstrate its allowable FAR and required open space ratio. Was this done?

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5 In most cases, height is measured from the base plane. Because these buildings are separated from each other by a roof, however, 23-82 instructs: “In applying such provisions, the height of the two portions shall be measured from the roof of the connecting portion of such building instead of from the base plane# or curb level#, as applicable.” Consequently, the height used when applying 23-711 is the height from the top of the garage to the highest point of the new addition.

6 This measurement is found nowhere on the applicant’s zoning drawings. It was scaled in CAD by my office from other dimensions the applicant provided on the drawing.
Information from the survey would then be summarized into a zoning compliance table. The following is a partial reproduction of the zoning compliance table from the zoning drawing at the resolution found in that document:

Reproduction of a portion of the zoning compliance table from the approved ZD1

It’s difficult to read, so I have blown up an important portion that details existing and required conditions:

Reproduction of detail of the zoning compliance table from the approved ZD1. It is not legible.

Unfortunately, the table that is supposed to demonstrate zoning compliance is not legible. Why does the Department approve and distribute approved plans with
numbers that cannot be read? It is a question that I have asked your office many times, and to which I have never received an answer. The work you do is important. Our zoning regulations are important. These plans are important. Why can’t they be produced and distributed so that the numbers can be read? Basic minimum quality standards, such as all numbers should be legible, is a very low bar for your Department to enforce.

So not only are reviewers like myself unable to thoroughly evaluate these plans, distributing approved materials that have such obvious quality deficiencies raises unnecessary questions about the thoroughness, accuracy and the competence of the Department’s review, especially in the context of the other zoning issues this review has raised.

**Other concerns**

This CHP requires a permit from New York State Department of Environmental Conservation to allow it to emit pollutants into the air. Permits issued by the NYSDEC must consider environmental justice. Environmental justice is a concept that focuses on *improving* the environment in minority and low-income communities and addressing disproportionate adverse environmental impacts that exist in those communities. While environmental justice has been around for decades, the concept was reinforced last week when voters passed a ballot measure to amend the state constitution to add: “Each person shall have a right to clean air and water, and a healthful environment.”

Around Stuyvesant Town are many areas that may qualify as Environmental Justice Areas. These areas are marked in blue in the map below.\(^7\)

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\(^7\) NYS GIS Clearinghouse.
The site of the CHP on Avenue C is marked in red; Stuyvesant Town is marked in bold and EJ areas are marked in blue.

Across from the proposed CHP plant is a large Consolidated Edison generating facility and substations. This is an area that already has substantial environmental challenges and environmental justice populations, and the applicant’s program is classified as a major project under the Uniform Procedures Act, which may have a significant impact on the environment.

I realize that this is not a zoning concern, and therefore is not a consideration in your approval. Nevertheless, should a facility that requires an NYSDEC permit as a source of air pollutants be located in an area where we are striving to improve the environment for the benefit of EJ populations in the surrounding area? It is not a question either of us are qualified to answer, but it is a question that the NYSDEC should address as a part of their permitting process.
Close
Thank you for your hard work to make New York City a better place. Should you have any questions or would like to discuss, please feel free to contact me at george@georgejanes.com.

Sincerely,

George M. Janes, AICP
George M. Janes & Associates

CC: Carolyn Maloney, US Representative, 12th District
Keith Powers, New York City Council Member
Corey Johnson, New York City Council Speaker
Gale Brewer, Manhattan Borough President
Brad Hoylman, New York State Senator
Harvey Epstein, New York Assembly Member
Raju Mann, Director, Land Use, New York City Council
Basil Seggos, Commissioner, NYSDEC
Vincent Sapienza, Commissioner, NYCDEP
Caitlyn P. Nichols, NYSDEC