



NEW YORK CITY COMPTROLLER
BRAD LANDER

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Deputy Comptroller for Audit

Audit Report on the New York City Housing Authority's Controls over the Installation of Roof Top Fans at NYCHA Buildings

MG22-059A | September 30, 2022



THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
BRAD LANDER

September 30, 2022

To the Residents of the City of New York,

My office has audited the New York City Housing Authority (NYCHA) to determine whether NYCHA had adequate controls over the installation of roof top fans at its buildings.

The audit determined that NYCHA generally maintained adequate controls over the vendors' installation of the roof top fans. The agency monitored the installations, took steps to combat the delays, and utilized project managers to certify that the work was completed as reported in invoices by vendors. However, the audit found that NYCHA lacked formal written procedures to show that certifications were completed prior to issuing payments to vendors.

The audit recommends that NYCHA update its written guidelines to require that it maintain evidence of work being certified prior to payment of invoices.

The results of the audit have been discussed with NYCHA officials, and their comments have been considered in preparing this report. Their complete written response is attached to this report.

If you have any questions concerning this report, please e-mail my Audit Bureau at audit@comptroller.nyc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Lander".

Brad Lander
New York City Comptroller

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AUDIT IMPACT

Summary of Findings

The audit found that the New York City Housing Authority (NYCHA) generally maintained adequate controls over the vendors' installation of the roof top fans and that it took steps to combat associated delays. Construction Project Managers (CPMs) were on site daily to oversee the installation process, regularly communicated the status of the installations to NYCHA's Office of Mold Assessment and Remediation (OMAR), and confirmed that the installations were performed for payments rendered to vendors.

Auditors reviewed a sample of invoices totaling \$1,336,881 and found NYCHA's oversight to be generally adequate and that service was provided in accordance with the terms of its contracts.

However, the audit also found that NYCHA should update its written guidelines for certifying that work is completed in a satisfactory manner before payments are rendered. A review of 20 sampled invoices revealed that all but one of the associated certifications signed by an inspector were not dated. The audit recommends that NYCHA should update its written guidelines requiring that certification of work performed be documented prior to the payment of invoices.

Intended Benefits

The audit identified areas in which NYCHA can improve its oversight of roof top fan installations to ensure that they are performed satisfactorily and without unnecessarily lengthy delays.

INTRODUCTION

Background

NYCHA, the largest public housing authority in North America, was created in 1935 to provide decent, affordable housing for low- and moderate-income New Yorkers. NYCHA's mission is to increase opportunities for low- and moderate-income New Yorkers by providing safe, affordable housing and facilitating access to social and community services. As of April 2022, NYCHA provided affordable housing to residents within 335 developments throughout the City.

On June 11, 2018, the United States District Court (Southern District of New York) filed a Complaint against NYCHA alleging that NYCHA breached its duty to provide decent, safe, and sanitary housing for its residents. According to the Complaint, "Mold grows unchecked at many NYCHA developments, often on a large scale." On January 31, 2019, NYCHA, the City, and the U.S. Department of Housing and Urban Development entered into an agreement which called for the appointment of a federal monitor who would act independently on behalf of NYCHA residents and help to facilitate changes at NYCHA, including overseeing a project involving the installation of oversized roof top fans to improve ventilation to combat mold contamination in NYCHA developments.

NYCHA's Office of Mold Assessment and Remediation (OMAR) instituted an Action Plan with a goal of replacing over 8,000 aging/difficult-to-maintain roof top fans by June 30, 2021. NYCHA began soliciting contracts for installation in September 2019, and during the period November 2019 through March 2021, it awarded eight contracts related to the installation of roof top fans. The cumulative value of the contracts was \$44,700,000, to upgrade roof top fans at 186 of NYCHA's 277 conventional housing developments.¹ According to NYCHA, from March 2022 through May 2022, it modified the purchase order amounts for four of the eight vendors, from \$11,300,000 to \$20,850,000, an increase of \$9,550,000.²

NYCHA faced delays that prevented it from meeting its initial June 2021 deadline and had to extend its completion deadline three times, with the last extension ending May 2022. NYCHA cited difficulty in soliciting qualified vendors; the need for asbestos removal; manufacturing delays; and mandated COVID-19-related closures, as reasons for the delays. As of August 23, 2022, the agency had installed 6,182³ (or 99.9%) of the 6,188 roof top fans required to be installed by OMAR.⁴ NYCHA made payments totaling \$16,498,649 to the eight vendors: \$14,130,583 for the installation of roof top fans and \$ 2,368,066 for engineering services.

¹ The ventilation program at large consists of three major areas: roof fan installation; vent cleaning; damper/grill replacement. Some of the services require engineering services to support the implementation of the project. Ventilation contracts are used to support a subset or all three areas of the program.

² According to NYCHA, the contracts allowed for an increase from the original cost of the contract if the cost of the work exceeded the cost of the contract. The cost of the work remaining to be performed for the four contracts exceeded the original contract amounts.

³ In its response, NYCHA stated that as of September 15, 2022, the installation of the 6 remaining roof top fans was completed, accounting for all 6,188 roof top fans required to be installed by OMAR.

⁴ NYCHA assigned 186 developments to OMAR, which represent 8,436 roof top fans. Through the engineering verification process, the engineers verified that 2,248 roof top fans were to be retained as they were installed by divisions other than OMAR, leaving 6,188 to be installed by OMAR.

CPMs from OMAR oversee the installations and inspect the roof top fans. Once OMAR verifies that the work has been completed, it forwards the invoices to the Accounts Payable department, which uses the Oracle Financial System to process all payments to vendors.⁵

Objective

The objective of this audit was to determine whether NYCHA had adequate controls over the installation of roof top fans at its buildings.⁶

Discussion of Audit Results with NYCHA

The matters discussed in this report were discussed with NYCHA officials during and at the conclusion of this audit. An Exit Conference Summary was sent to NYCHA on August 10, 2022 and discussed with NYCHA officials at an exit conference held on August 18, 2022. On September 16, 2022, we submitted a draft report to NYCHA with a request for written comments. We received a written response from NYCHA on September 28, 2022. In its response, NYCHA agreed with the audit's recommendation, stating that "the NYCHA Team would like to thank the Comptroller's Office for this audit, the positive evaluation and the recommendation, which will further improve NYCHA's payment protocols."

In its response, NYCHA also provided minor edits for consideration, which have been incorporated in this final report. The full text of the NYCHA response is included as an addendum to this report.

⁵ NYCHA coordinates with the ventilation unit field team to confirm completion of the work and receives updated roof top fan trackers with the status of the work including completion.

⁶ The focus of this audit was on NYCHA's installation of fans in residential buildings (and not the non-residential/capital installations), by its Office of Mold Assessment and Remediation (OMAR).

DETAILED FINDINGS

NYCHA generally maintained adequate controls over the vendors' installation of the roof top fans. Regarding the delays, NYCHA provided evidence that it monitored the installations and took steps to combat the delays, including the use of emergency contracts to attract qualified vendors; mobilization of its asbestos team to identify the fans throughout the developments where asbestos remediation efforts were needed and taking corrective action; and negotiation with manufacturers to improve lead times and establish direct communication to minimize delays and to reduce the time between manufacturing and shipment.

Regarding oversight of the installations, the audit found that CPMs were on site daily to oversee the installation process, regularly communicated the status of the installations to OMAR, and confirmed that the installations were performed for payments rendered to vendors. OMAR has a team of CPMs and inspectors who monitor and inspect the installations. Although there are no initial inspection reports, the team communicates their findings to OMAR via emails and daily chats on Microsoft Teams. A review of these communications confirmed that the team used them to inform OMAR about the number of fans installed, issues relating to installation, and requests to the vendors to correct any installation issues. OMAR also uses a roof top fan installation tracker to cross-reference the information. Once the vendors correct any outstanding issues, OMAR inspectors conduct re-inspections to verify that the issues have been corrected and sign-off on re-inspection reports.

The audit found that vendors had submitted detailed invoices to OMAR upon completion of work, along with a Statement of Services (SOS) form signed by both the vendor and the CPM who oversaw the work. Auditors reviewed a sample of 54 invoices (totaling \$1,336,881) from the population of 259 invoices (totaling \$9,933,959) paid through January 25, 2022 and found NYCHA's oversight to be generally adequate and that service was provided in accordance with the terms of its contracts.

However, the auditors found that NYCHA should update its written guidelines for certifying that work is completed in a satisfactory manner prior to issuing payments. Upon receipt of an SOS form, an OMAR inspector conducts an inspection to determine whether the vendor followed the scope of work as specified in the contract and, if so, is responsible for signing and dating the SOS form. According to NYCHA, the sign-off date is used to note the date that the work was satisfactorily completed and serves as evidence that the necessary approvals were obtained prior to payment being rendered. A review of 20 sampled invoices revealed that all associated SOS forms were signed by an inspector; however, only one was dated. Without requiring a sign-off date, NYCHA has limited assurance that payments are made after staff confirms that the work reflected on the invoices has been satisfactorily completed.

RECOMMENDATION

To address the detailed findings, the auditors propose that:

1. NYCHA should update its written guidelines to require that adequate evidence be maintained to certify work is performed prior to payment of invoices. This requires that related documents include the date of the certification.

NYCHA Response: NYCHA agreed with this recommendation.

Recommendations Follow-up

Follow-up will be conducted periodically to determine the implementation status of each recommendation contained in this report. Status updates are reported in the Audit Recommendations Tracker available here: <https://comptroller.nyc.gov/services/for-the-public/audit/audit-recommendations-tracker/>

SCOPE AND METHODOLOGY

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. This audit was conducted in accordance with the audit responsibilities of the City Comptroller as set forth in Chapter 5, §93, of the New York City Charter.

The scope of the audit was May 2019 to August 26, 2022.

To gain an understanding of NYCHA's policies and procedures, and existing regulations governing roof top fan installations, the auditors reviewed NYCHA's Standard Procedures Manual (SP008031) – Procurement of Materials and Services, as well as various City and New York State codes, rules, and regulations, such as Title 27 of the New York City Administrative Code, Construction and Maintenance: Light, Heat, Ventilation and Noise Control, and Title 15, Chapter 1 of the Rules of the City of New York, Asbestos Rules and Regulations. To obtain an understanding of NYCHA's internal controls over the installation of roof top fans, the auditors conducted a walkthrough of the installation process with officials from OMAR, including Directors and Construction Project Managers.

To assess the accuracy and consistency of the data on the installation tracker, the auditors obtained a dataset listing 1,072 buildings where roof top fans were either installed or scheduled to be installed at NYCHA's developments across the five boroughs with projected completion dates of May 2020 through October 2021. The auditors determined whether all fields⁷ in the tracker dataset were populated and compared the information in the tracker to the bi-weekly ventilation project update reports to determine the number of roof top fans that were installed and the number remaining to be installed.

Auditors reviewed invoices for the eight contracts submitted for the period of August 28, 2020 through August 18, 2022, between NYCHA and its roof top fan installation vendors and the supporting documentation (e.g., checks, bank confirmations, roof top fans payment detail spreadsheets) to determine whether the tasks performed (listed as line items for these invoices) were in compliance with the scope of work and cost proposals in the vendors' contracts, and payments matched what was billed on the invoices. To account for any differences between distributed amounts and check amounts, the auditors reviewed the payment detail spreadsheets bank confirmations (checks and ACH payments); batch payments, and screen shots from NYCHA's Oracle Financial System.

Auditors conducted a walkthrough with OMAR officials in which officials outlined their process for ensuring that roof top fans were installed in a satisfactory manner. From the population of 259 invoices totaling \$9,933,959 submitted by vendors during the period August 2020 through January

⁷ Fields include Building ID; Consolidation; Development Name; Address; Engineer; Contractor; Total Building Fans; Fans Installed; Fans Retained; Non-Residential; Total Fans Left to Install; and Month/Year of Completion.

2022, auditors selected a sample of 54 invoices—34 engineering⁸ and 20 non-engineering invoices—totaling \$1,336,881 and reviewed supporting documentation maintained by NYCHA (e.g., emails, daily Team Chats, re-inspection reports, SOS forms) to determine whether inspections were conducted on the newly installed roof top fans and whether these inspections were conducted prior to payment of the related invoices.

As evidence of NYCHA's efforts to address the delay issues which impacted the installation process, the auditors reviewed the Roof Fan Ventilation-Days Work Tracker, communication between NYCHA and the manufacturer, and evidence of mobilization of NYCHA's asbestos team.

The results of the above tests, while not statistically projected to their respective populations, provide reasonable assurance to assess whether NYCHA had adequate controls over OMAR's installation of roof top fans at NYCHA's buildings.

⁸ According to NYCHA, inspection of work performed for engineering contracts is conducted by OMAR staff, who are responsible for reviewing timecards against the engineering drawings; facilitating site visits; and verifying the delivery of service in real time as the documents/deliverables are submitted.



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LISA BOVA-HIATT
INTERIM CHIEF EXECUTIVE OFFICER

September 28, 2022

By Electronic Mail

Maura Hayes-Chaffe
Deputy Comptroller for Audit
NYC Office of the Comptroller
One Centre Street, Room 1100
New York, NY 10007
Email: mhayes1@comptroller.nyc.gov

Dear Ms. Hayes-Chaffe:

This letter is in response to your September 16, 2022 letter, which provided the Draft Audit Report on the New York City Housing Authority's Controls over the Installation of Roof Top Fans at NYCHA Buildings -- # MG22-059A.

Thank you for your findings and for your work auditing this program. We agree with your conclusion that "NYCHA generally maintained adequate controls over the vendors' installation of the roof top fans" and that "NYCHA provided evidence that it monitored the installations and took steps to combat the delays, including the use of emergency contracts to attract qualified vendors; mobilization of its asbestos team to identify the fans throughout the developments where asbestos remediation efforts were needed and taking corrective action; and negotiation with manufacturers to improve lead times and establish direct communication to minimize delays and to reduce the time between manufacturing and shipment."

NYCHA is committed to providing a safe and clean home for everyone living in public housing. To that end, NYCHA understands that adequate roof top fan ventilation is key to enhancing indoor air quality. Improving ventilation within the home reduces indoor moisture and humidity, two (2) issues which form some of the leading root causes of mold within NYCHA's buildings. Therefore, NYCHA's commitment to replacing roof top fans across the NYCHA's portfolio was a key component of NYCHA's mold response.

We are pleased to share that as of September 15, 2022, NYCHA has completed the installation of the remainder six (6) roof top fans, bringing the total number of roof top fans installed to 6,188 and 2,248 roof top fans retained. Overall, the verification and/or

replacement of 8,436 roof top fans across 186 developments was an extremely complex task.

At the outset, NYCHA faced significant challenges to procure vendors capable of providing adequate installation capacity. After unsuccessful bids, NYCHA resorted to declaring an emergency to secure vendors. In addition, NYCHA tapped into newly awarded Job Order Contracts mid-way to further supplement the installation capacity.

NYCHA's Office of Mold Assessment and Remediation (OMAR) led this effort and administered the contracts including the payments. To account for the project's complexities, OMAR established a daily roof top fan tracker which incorporated each roof top fan asset and counted the total number of roof top fans per development, roof top fans retained, roof top fans with asbestos, roof top fans to be replaced, and each roof top fan's phase of implementation (i.e., engineering, asbestos). The OMAR Team ensured the roof top fan tracker was constantly refreshed using the latest information provided from the OMAR Team working on-site. Once the tracker was updated, the OMAR Team would communicate any changes to the overall roof top fan numbers via regular updates to multiple stakeholders including daily reporting to the General Manager's Office (now known as Chief Operating Officer's Office), weekly reporting to the NYCHA Chair/CEO, bi-weekly reporting to the HUD Monitor and Independent Mold Analyst (IMA), and a report updated every six (6) weeks for the *Baez* Plaintiffs.

We have included the NYCHA response in the following paragraphs, which provides our corrective actions to address the one (1) recommendation presented in the report:

Audit Recommendation No. 1

NYCHA should update its written guidelines to require that adequate evidence be maintained to certify work is performed prior to payment of invoices. This requires that related documents include the date of the certification.

NYCHA Response:

NYCHA has noted the New York City Comptroller's Office recommendation and has put controls in place to ensure that as part of the approval process, the Statements of Services are checked by the OMAR Administrators to ensure that in addition to the signature, they are dated as part of the sign-off, prior to submitting the documents to Accounts Payable for processing of the payments.

Further, NYCHA has updated the Accounts Payable Procedures Manual to reflect that receipts should not be submitted by the Business Units for payment, without a signed and dated Statement of Services.

In addition to the above, we are providing to your office some minor edits for your consideration, in the attached Appendix 1, which also includes justification for the suggested changes.

While there were many challenges to complete the roof top fans installation project, NYCHA staff at all levels stepped up to ensure the project's success. To see the project through to completion, the OMAR Team often worked weekends as well as holidays to ensure the timely completion of all ventilation related work. Furthermore, the contributions of NYCHA's Executive Team cannot be understated. Senior managers at NYCHA worked tirelessly to support the OMAR Team overcome any obstacles and challenges they faced. Finally, the HUD Monitor Team and the IMA provided countless hours of support to this project to both ensure the work was completed properly and on time. Without the combined help of all three (3) of these groups, this project would not have been possible.

The NYCHA Team would like to thank the Comptroller's Office for this audit, the positive evaluation and the recommendation, which will further improve NYCHA's payment protocols.

If you have any questions, please contact Mr. Terrence H. Clarke, Acting Audit Director, at 212-306-8484.

Sincerely,



Lisa Bova-Hiatt
Interim Chief Executive Officer

cc: Daniel Steinberg, Director, Mayor's Office of Operations
Doug Giuliano, Associate Director, Programs, Mayor's Office of Operations
Henny Izlovich, Audit Manager, NYC Comptroller's Office
Greg Russ, Chair
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Elena Tenchikova, Senior Director, Office of Mold Assessment and Remediation
Terrence H Clarke, Acting Director, Internal Audit & Assessment
Anil Agrawal, Assistant Director for External Audits, Internal Audit and Assessment
File

**Audit Report on the New York City Housing Authority’s
Controls over the Installation of Roof Top Fans at NYCHA Buildings
Audit No. MG22-059A**

| # | Page | Current Content | Proposed Content | Justification |
|---|---|---|---|--|
| 1 | 1-Summary Section-3 rd paragraph | “However, the audit also found that NYCHA lacks formal written procedures for certifying that work is completed in a satisfactory manner before payments are rendered.” | “However, the audit also found that NYCHA should update its written guidelines for certifying that work is completed in a satisfactory manner before payments are rendered.” | <ul style="list-style-type: none"> • For consistency, as per Recommendation section of the Draft report - page 5. |
| 2 | 1-Summary Section-3 rd paragraph | “The audit recommends that NYCHA establish written guidelines requiring that certification of work performed be documented prior to the payment of invoices.” | “The audit recommends that NYCHA should update its written guidelines requiring that certification of work performed be documented prior to the payment of invoices.” | <ul style="list-style-type: none"> • For consistency, as mentioned on #1 above and as per Recommendation section of the Draft report - page 5. |
| 3 | 2- Background Section-3 rd paragraph | “NYCHA Office of Mold Assessment and Remediation (OMAR) instituted an Action Plan with a goal of replacing 8,000 non-functioning roof top fans by June 30, 2021.” | “NYCHA Office of Mold Assessment and Remediation (OMAR) instituted an Action Plan with a goal of replacing 8,000 aging/difficult-to-maintain roof top fans by June 30, 2021.” | <ul style="list-style-type: none"> • Most of the roof top fans were functioning and operational; however, they were aging. NYCHA is proposing to use the same language as in the Mold HUD Action Plan on page 16. |
| 4 | 2- Background Section- 3 rd paragraph | “The cumulative value of the contracts was \$44,700,000, to upgrade roof top fans at 166 of NYCHA’s 335 developments.” | “The cumulative value of the contracts was \$44,700,000, to upgrade roof top fans at 186 of NYCHA’s 277 conventional housing developments.” | <ul style="list-style-type: none"> • 186 developments were originally assigned to OMAR where engineering services were performed. • 166 developments had roof top fans replacement and 20 developments had retained roof top fans. • 335 developments include Section 8, and PACT/RAD |

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| | | | | <i>programs. We shouldn’t include those roof top fans.</i> |
| 5 | 2- <i>Background Section -4th paragraph</i> | <i>“As of August 23,2022, the agency had installed 6,182 (or 99.9%) of the 6,188 roof top fans required to be installed by OMAR. NYCHA made payments totaling \$16,498,649....”</i> | <i>“As of September 15, 2022, the agency had installed 6,188 (or 100%) of the 6,188 roof top fans required to be installed by OMAR. As of August 23, 2022, NYCHA made payments totaling \$16,498,649....”</i> | <ul style="list-style-type: none"> • <i>OMAR completed the installation of the 6 remaining roof top fans.</i> |
| 6 | 2- Foot <i>Note No. 3</i> | <i>“The contract called for the installation of 8,436 roof top fans. However, 2,248 were retained (installed by division other than OMAR), leaving 6,188 to be installed by OMAR. Of those, 6,182 were installed and 6 were remaining to be installed.”</i> | <i>“NYCHA assigned 186 developments to OMAR which represent 8,436 roof top fans. Through the engineering verification process, the engineers verified that 2,248 roof top fans were to be retained as they were installed by division other than OMAR, leaving 6,188 to be installed by OMAR.”</i> | <ul style="list-style-type: none"> • <i>The contracts did not directly specify how many roof top fans were assigned. They were Indefinite Delivery Indefinite Quantity (IDIQ) contracts. The decision on what developments were to be in OMAR’s scope was decided and directed by NYCHA leadership, based on the assessment of the overall portfolio and the funding sources.</i> |
| 7 | 4-Detailed <i>Findings Section-last paragraph</i> | <i>“However, the auditors found that NYCHA lacks formal written procedures for certifying that work is completed....”</i> | <i>“However, the auditors found that NYCHA should update its written guidelines...”</i> | <ul style="list-style-type: none"> • <i>For consistency, as mentioned on #1 above and as per Recommendation section of the Draft report - page 5.</i> |



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