

NYCHA Compliance Department:
5th Assessment of Compliance with Requirements Of
Paragraphs 14 and 15 of Exhibit A to the January 31, 2019 Agreement
Between NYCHA, HUD, SDNY and the City of New York

Introduction and Methodology

On January 31, 2019, the New York City Housing Authority (“NYCHA”), the United States Department of Housing and Urban Development (“HUD”), the Southern District of New York (“SDNY”), and the City of New York (“City”) entered into a settlement agreement (“HUD Agreement”) which sets forth specific requirements for NYCHA to remedy physical conditions in its developments, including lead-based paint. Exhibit A of the HUD Agreement sets forth the requirements pertaining to lead-based paint.

Paragraph 30(b) of Exhibit A requires NYCHA to provide, every 6 months, “the United States and the Monitor a certification describing its compliance with paragraph 8 through 15” of Exhibit A. Paragraphs 8 through 13 of Exhibit A set forth future obligations that NYCHA must comply with concerning long-term lead abatement projects. In contrast, Paragraphs 14 and 15 represent ongoing compliance obligations for NYCHA under the EPA Abatement Rule (40 CFR § 745.227) (“Abatement Rule”), and the lead safe work practice requirements set forth in the Lead Safe Housing Rule (24 CFR Part 35, subparts B – R) (“Lead Safe Housing Rule”) and the Renovation, Repair, and Painting Rule (40 CFR Part 745, subpart E) (“RRP Rule”). This is NYCHA’s 5th report assessing compliance with Paragraphs 14 and 15.

To evaluate NYCHA’s ability to certify to the requirements of Paragraphs 14 and 15 on July 31, 2021, the Compliance Department conducted a review of NYCHA records and activities for the period between December 16, 2020 through June 15, 2021 (“Covered Period”). Additionally, the NYCHA Environmental Health and Safety Department (EHS) issued a report (annexed as Attachment A) documenting field oversight activities that should be read in tandem with this Report.

The Compliance Department uses the following methodology to evaluate NYCHA’s compliance with Paragraphs 14 and 15:

- **Existence of Written Policies, Procedures or Contract Specifications:** This criterion evaluates whether NYCHA has established specific written policies, procedures, contract specifications, trainings or instructional materials that required staff and/or vendors to perform the requirements set forth in the regulations during the Covered Period.
- **Existence of IT Controls:** This criterion evaluates whether NYCHA’s Maximo Work Order system (or other system) has established IT controls that strengthen compliance with the applicable regulatory requirement during the Covered Period.
- **Quality Assurance or Field Monitoring Protocols:** This criterion evaluates whether NYCHA has performed any quality assurance or any field monitoring during the Covered Period of abatement, interim control, or RRP projects to assess compliance with each specific regulatory requirement and the results of the quality assurance or field monitoring activities.

- **Recordkeeping/File Review:** This criterion evaluates whether project files for work orders closed during the Covered Period contain documentation required by and/or evidencing compliance with each specific regulatory requirement.
- **Overall Assessment of Compliance:** This overall assessment of NYCHA's compliance during the Covered Period with each specific requirement is based upon the above-described criteria and any additional information provided by NYCHA staff. This shall also disclose any significant identified deficiencies with each specific regulatory requirement and, where available, provide action items that NYCHA must conduct in the next 6 months to address compliance shortfalls.

Update on Compliance-Related Activities Since Last Paragraph 30(b) Certification (January 31, 2021)

On January 31, 2021, NYCHA was unable to certify to compliance with Paragraphs 14 and 15 for the following main reasons.

- NYCHA needed to improve vendor recordkeeping to reach substantial compliance with the requirements of paragraph 14(d).
- NYCHA needed to improve compliance with the Notice of Hazard Reduction ("NOHR") requirement set forth in 24 CFR §35.175 and 40 CFR § 745.227 (i) (paragraph 14(g))
- NYCHA did not have adequate controls to collect RRP checklist and pre-work notice documentation from vendors (paragraph 15(e)(f)(h)(i)).
- NYCHA did not have enough controls on collecting and reviewing vendor firm and worker certification requirements under the RRP rule (paragraph 15(b))
- NYCHA was generally not in compliance with the clearance examination requirements due to inadequate worksite controls while waiting for dust wipe results and missed or late clearance examinations (paragraph 15(j)).

On January 31, 2021, NYCHA Compliance did determine that NYCHA had exhibited adequate controls or documentation to demonstrate compliance with the following sub-paragraphs:

- Paragraphs 14 (a), (b), (c), (f): Completion of lead abatement activities pursuant to CFR 40 C.F.R. § 745.227(e)- 4, 5, 8-10.
- Paragraph 15(a): Establishing sufficient information in NYCHA's renovation and maintenance computer systems to readily identify renovation and maintenance projects involving work to which lead-safe work practice regulations apply in accordance with 24 CFR §§35.1330, 35.1350 and 40 CFR §745.85, 745.90.
- Paragraph 15(c): Maintaining status as a certified RRP firm.
- Paragraph 15(d): Confirming that its storerooms have sufficient supplies that can be used by NYCHA staff daily to fulfill the lead safe work practice requirements pursuant to 24 CFR § 35.1350 and 40 CFR § 785.85.

Since January 31, 2021, NYCHA has continued to take certain actions to correct or attempt to improve its ability to meet the requirements set forth in Paragraphs 14 and 15. However, NYCHA continues to have continued compliance struggles in several areas, including related to documentation for vendor-performed RRP work, clearance examinations for RRP and interim control projects, and the transmittal of timely NOHRs following the completion of abatement or remedial work.

In addition, two new separate areas of compliance risk have been identified during the Covered Period. First, NYCHA has identified 4,523 apartments with positive components in buildings with local and/or federal exemptions from lead-based paint requirements.¹ This finding has required modifications to the Maximo work order system, as well as adding these apartments to the lead compliance program.

Second, Compliance has identified that, for over 94% of work orders potentially subject to RRP requirements, NYCHA renovators are indicating on the work order that they are not performing work that requires RRP protocols. While this does not necessarily mean these work orders are non-compliant, it does mean that there should be greater supervisory oversight to ensure that NYCHA renovators are correctly following the work order protocols when determining if they are performing RRP work. Compliance's ongoing review of this issue found that additional training for renovators and IT enhancements are necessary to further improve its already sophisticated work order system for lead.

General Update on Compliance with Paragraph 14: NYCHA has made significant strides in building a compliant abatement program. Both documentary and field monitoring from the Covered Period show a high rate of compliance for abatement projects. EHS observed 441 jobs and observed a 100% compliance rate with various requirements. Compliance's documentary monitoring also exhibited a high rate of compliance. Based on results from field monitoring and file review, Compliance recommends that NYCHA can continue to certify substantial compliance in the following parts of Paragraph 14: a, b, d, e, and f.

Despite these improvements, continued field and documentary oversight is necessary to detect non-compliance and ensure staff accountability, especially in abatement work performed in occupied units. Compliance is a continuous process and NYCHA needs to maintain the positive performance. This is very important as NYCHA begins its efforts to in complete abatement work in units with children under 6 ("CU6") and one to two lead components through the new TEMPO program, which is described below.

General Update on Compliance with Paragraph 15: NYCHA continues to make some strides to improve compliance with RRP Rule and Lead Safe Housing Rule requirements set forth in Paragraph 15. Field monitoring performed by EHS continues to show that NYCHA renovators are adhering to their training in the field. EHS has also observed improvements in all aspects of RRP performance and availability of RRP equipment in storerooms. The major issues preventing certification with Paragraph 15 are establishing better controls for vendor RRP documentation, maintaining more consistency in issuing the NOHRs, and improving performance of clearance examinations.

In addition, as discussed in more detail under Paragraph 15(a) below, Compliance is investigating how the skilled trades and maintenance workers answer the RRP enforcement questions in Maximo work orders. Thus far, the ongoing inquiry has shown that skilled trades and other NYCHA employees do not always answer the RRP enforcement question with full comprehension of the underlying requirements. This needs to be addressed through additional and ongoing training to ensure complete and sustained RRP compliance.

On clearance examinations, NYCHA is using dashboards and systems that improve the management of clearance examinations. While clearance examinations remain a compliance challenge, performance has generally stabilized over the past year, and Compliance and LHC are focusing on this requirement on a

¹ As discussed further below, as of July 1, 2021, 1,161 apartments are still pending paint chip analysis and thus may be determined to be negative after these results are received from the laboratory.

daily basis. Drops in performance over the Covered Period were attributed to supervisory staff absences and data entry issues.

On vendor RRP documentation, in May 2021, NYCHA launched a Vendor Compliance Portal, which requires vendors to upload RRP firm and worker certificates into a centralized database. This is a step in standardizing the process for vendors who may perform RRP work.

While EHS observed high rates of compliance with RRP procedures and other lead requirements during the Covered Period, EHS did escalate six matters to Compliance for staff accountability and corrective action, four of which involved RRP compliance. All six matters are described further below.

- **January 13, 2021 (Albany Houses):** EHS observed painters violating RRP requirements, including containment and cleaning protocols. Compliance reviewed this matter and recommended that the Department of Management and Planning (DMP) issue written counseling memorandums to the two paint supervisors involved in this infraction. DMP issued counseling memorandums to the supervisors on January 28, 2021.
- **February 8, 2021 (Kingsborough Houses):** EHS observed a lead dust wipe technician not adhering to the clearance protocols. The technician did not take measurements of the window sill and well where the dust wipes were taken. The technician also did not clean the template for the floor sample between uses. Additionally, the technician took part of their sample outside of the template. EHS escalated this matter to Compliance. Compliance recommended that a new dust wipe be taken (even though the first clearance had passed) and that the technician receive a counseling memo. On February 25, LHC served a memorandum to the technician for failing to follow protocol and for uncooperative conduct. On March 2, 2021, LHC management notified Compliance that the second dust wipe sample had passed.
- **February 11, 2021 (Bronx River Houses):** EHS escalated a matter where the EHS inspector observed painters not following RRP cleaning protocols. Compliance researched the applicable work order and identified that the workers had, in accordance with protocol, indicated on the work order that they were not performing work on lead positive components. The EHS inspector later acknowledged that he did not observe the painters performing any work on the lead positive components in the apartment, which were the window sills and window case. Therefore, Compliance concluded that no corrective action or staff accountability was warranted. EHS is currently working with the IT Department to add positive component data to all lead oversight inspection work orders. When complete, this information will be available on the LOT inspection application.
- **April 9, 2021 (Morisania/Jackson Houses):** EHS escalated a matter where the Property Management Office did not have the required Lead Disclosure Rule documents available for inspection. Compliance has recently published a training on the Lead Disclosure Rule, and will hold technical assistance sessions with developments that are found to not have the necessary documents available for inspection. LDR documents such as the developments' Lead Disclosure Summaries are readily available on NYCHA's share drive and from Lead Hazard Control.

- **May 12, 2021 (Riis Houses):** EHS observed a plasterer's helper performing wet scraping and plastering. The plasterer's helper did not have an RRP certification. NYCHA's procedure manual requires all workers that perform RRP tasks to have an RRP certification. Compliance recommended counseling memos for the plasterer supervisor and the plasterer's helper and an instructional memo to the plasterer. The staff accountability memorandums were issued in July 2021.
- **May 14, 2021 (Ingersoll Houses):** EHS escalated a matter where the Property Management Office did not have the required Lead Disclosure Rule documents available for inspection. Compliance has recently published a training on the Lead Disclosure Rule, and will hold technical assistance sessions with developments that are found to not have the necessary documents available for inspection. LDR documents such as the developments' Lead Disclosure Summaries are readily available on NYCHA's share drive and from Lead Hazard Control.

Based on results from field monitoring and file review, Compliance recommends that NYCHA can continue to certify substantial compliance in the following parts of Paragraph 15: a and c. In order to certify to Paragraph 15 b, e, f, g, h, and i, NYCHA must strengthen its oversight of vendors performing RRP work, and further improve its clearance protocols.

Updates on Other Significant Lead Matters

Approval of the Initial Lead Action Plan: On January 20, 2021, the Federal Monitor approved NYCHA's Initial Lead Action Plan, marking a significant milestone in NYCHA's efforts to improve its compliance and its lead programs. The Initial Lead Action Plan sets forth 11 individual actions that NYCHA must take over the next several years. One of the centerpieces of the Initial Lead Action Plan is the Team for Enhance Planning, Management, and Outreach, or TEMPO. The TEMPO Program is dedicated to apartments with children under the age of 6 (CU6), as this age group is most susceptible to the dangers of lead-based paint. The TEMPO Program will begin proactive abatement in CU6 apartments, starting with apartments that have two or fewer components with lead-based paint. In addition to abatement, the TEMPO Repair Team will be a single dedicated, trained, and accountable team for performing any paint disturbing repairs in CU6 apartments with three or more lead-based paint components. Both the TEMPO Abatement and Repair Teams work closely with a newly formed Relocation Unit that will offer free voluntary temporary relocations to hotels or other NYCHA apartments while repair or abatement activities in certain areas are taking place. In addition to these improvements, TEMPO will also double the number of lead visual assessments performed in CU6 apartments each year which will enable NYCHA to detect and correct lead-based paint hazards on a more frequent basis.

Because of the focus of TEMPO is on CU6 apartments, the Initial Lead Action Plan also requires NYCHA to do a better job in identifying these units and keeping track of them throughout the year. Thus, the Initial Lead Action plan requires NYCHA to perform more outreach and make it easier for residents to update information on whether children under 6 living or regularly visiting their apartment for at least 10 hours per week. NYCHA will also perform annual door-knock surveys in developments with known or presumed lead-based paint in the apartments. Further, NYCHA will update its roster of CU6 apartments for the TEMPO program once every two months to account for any changes that may take place during the year, such as a new child under 6 entering the home. NYCHA will also begin outreach to expecting families this Fall to enroll them in TEMPO early to address any hazards in the apartment.

In addition to TEMPO, the Initial Lead Action plan also has various actions geared towards improving NYCHA’s overall lead compliance, including with the requirements identified in Paragraph 14 and 15. These include updating NYCHA’s standard operating procedures, formalizing the EHS and Compliance Lead Oversight program, strengthening staff training, and beginning to require more vendor accountability on lead issues. The full Initial Lead Action Plan is publicly available on NYCHA’s website at <https://www1.nyc.gov/site/nycha/about/reports.page>.

Update on NYCHA XRF Initiative and Identification of Positive Apartments in Exempt Developments: NYCHA’s proactive initiative to perform inspections for lead-based paint X-ray fluorescence (XRF) spectrometer technology in more than 134,000 of its apartments across New York City is now more than two-thirds completed. As of July 27, 2021, NYCHA has completed inspections in 97,504 apartments, over 72 percent of the initiative. NYCHA has received results for 68,201 apartments: 45,770 have tested negative at the federal standard of 1.0 mg/cm² and 22,413 have tested positive.²

During an inspection, NYCHA tests approximately 150 components in each apartment for lead-based paint. Components can include a wall, a ceiling, a window sill, or a door buck, among many other items. Thus far, in units that have tested positive, in 45 percent of cases only one component in the apartment has tested positive for lead-based paint and in 22 percent of cases only two components have tested positive. This component-level information is then collected into a database so NYCHA can effectively work to remediate and abate lead-based paint across its portfolio. Put simply, the XRF initiative is critical because NYCHA will now know where the lead is above the federal standards, ensuring NYCHA can address the condition and protect against the risks associated with disturbing lead paint.

The 134,000 units that are included in the XRF testing initiative are pre-1978 units without a prior negative XRF test or a record of abatement. NYCHA’s current proactive testing initiative is designed with an abundance of caution and includes a broad range of developments. This includes developments previously designated exempt from lead requirements based on the random sampling methodology set forth in the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing. That random sampling was completed in the early 2000s.

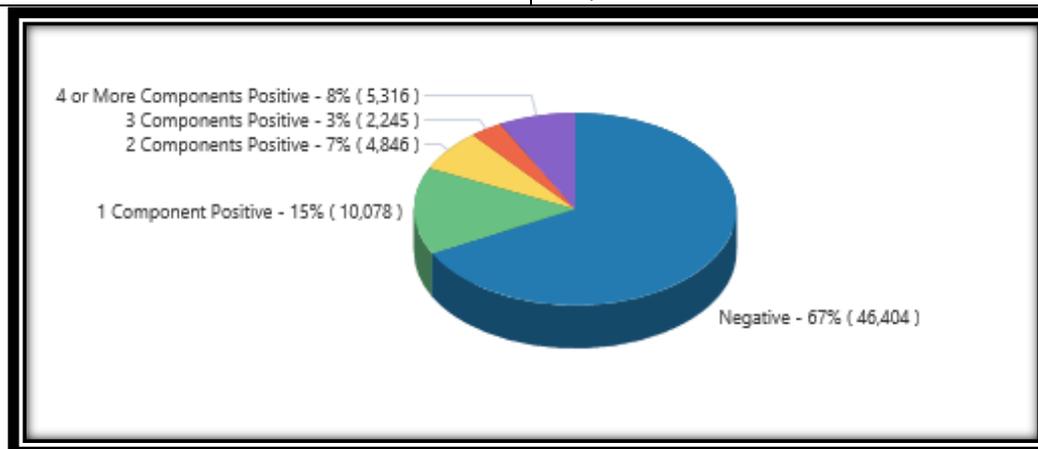
The current XRF initiative will test every development built prior to 1978, even if that development was previously designated as exempt using the random sampling methodology. Developments were scheduled/prioritized based on the number of CU6 units in each development. All units in a pre-1978 development that have not yet received individual testing will receive individual unit-based testing, instead of a random sampling, through the XRF testing initiative.

NYCHA is on track to schedule and attempt to inspect the remaining apartments in the XRF testing initiative in 2021. The full interim XRF lead testing results are below:

Category (data as of July 27, 2021)	All Testing Based on Federal 1.0 mg/cm ² standard
# of Units with Test Results Received	68,889
Positive	22,485

² On December 1, 2021, the standard for lead-based paint in New York City will be lowered to 0.5 mg/cm². This significant modification will necessitate changes to the way that all New York City landlords of pre-1978 buildings address lead-based paint, including NYCHA. NYCHA is beginning to plan for the transition to the new standard, which will primarily affect how NYCHA manages lead-based paint in apartments with children under the age of 6. The federal standard remains at 1.0 mg/cm².

Negative	46,404
# of Units Pending Results	29,342
Total Completed	98,231
Total Attempted	110,445
Total Remaining to be Attempted	23,639
Total in XRF Universe	134,084



While the XRF Initiative has identified a significant number of negative apartments under the federal standard, it is also identifying apartments with positive components in developments considered exempt under federal and/or local law. So far, as of June 30, 2021, NYCHA has received results for a total of 29,415 apartments across 60 developments for buildings that were previously thought to be exempt based on the random sampling method. As of June 30, 2021, of the 29,415 apartments, 24,892 are negative under the federal standard and 4,523 are positive in buildings that were identified as being exempt. Of the 4,523 apartments that have tested positive, 1,161 are still pending paint chip analysis. Based on the paint chip analysis, it may be determined that some of these apartments are actually negative. Additionally, 24,192 apartments in these developments remain untested, or have been tested but have results that are pending.

As discussed further in Paragraph 15(a) below, in February 2021, Compliance identified a gap in the Maximo work order system where apartments that tested positive in exempt buildings were not being automatically flagged with the lead-based paint warnings and RRP enforcement protocols. Upon identification of this gap, Compliance worked with LHC and NYCHA IT to fix the issue, and the enhancement went live in the system on April 8, 2021. In the interim period, Compliance and IT had warning flags placed on these apartments to warn renovators of the presence of lead-components.

Now that this enhancement is put into place, these apartments will be subject to RRP enforcement protocols when renovators disturb any of the surfaces with lead-based paint. These apartments will also be subject to annual visual assessments, and will be included in the TEMPO program if they have a child under the age of 6. In addition, these apartments will be subject to the abatement obligations set forth in the HUD Agreement.

Completion of Biennial Risk Assessment Reevaluations: While not part of the Paragraph 30(b) certification, another important update from the Covered Period is NYCHA's completion of biennial risk

assessments pursuant to 24 CFR §35.1355(b) and Exhibit A, Paragraph 18 of the HUD Agreement. The biennial risk assessments, as required, evaluate exterior areas (including bare soil), interior common areas, and units. This project evaluated lead-based paint risks at 238 developments.³

The biennial risk assessment and re-evaluation process is outlined in Chapter 5 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint. NYCHA adhered to the below methodology for conducting its biennial risk assessments at the 238 developments' apartments, interior common areas, and exterior areas.

Type of Inspection	Description
Inspections in Apartments with Known or Presumed Lead Based Paint	Risk assessment of statistical sample of apartments, including paint inspection and dust wipe testing.
Inspections in Apartments with No Lead-Based Paint Components	Risk assessment focused and lead dust hazards
Inspections of Common Areas w/ Known or Presumed Paint in Common Areas	Risk assessment of statistical sample of common areas, including paint inspection and dust wipes
Inspections Exterior Areas w/ Known or Presumed Paint in Exterior Areas	Risk assessment including paint inspection of exterior areas, bare soil inspections, and soil sampling

In conducting the biennial risk assessment, the risk assessors inspected 4,014 CU6 apartments and 1,380 non-CU6 apartments, for a total of 5,394 apartments. In these apartments, the risk assessors identified 18,648 individual components in satisfactory condition and 2,527 components with unsatisfactory paint conditions. This unsatisfactory conditions resulted in 856 remediation work orders (some apartments had multiple components with deficiencies). Of these, 255 remediations have been closed as of July 28, 2021.

With respect to dust lead hazards, the risk assessors took 37,219 dust samples in the CU6 apartment and 13,114 samples in the non-CU6 apartments, for a total of 50,333 samples. Of these, 48,583 samples passed and 1,560 samples failed. The unsatisfactory conditions resulted in 707 work orders to address failed dust wipe samples (some apartment had multiple failed samples). Of these, 247 remediations have been closed as of July 28, 2021.

With respect to common areas, the risk assessors conducted 3,727 inspections. In regard to paint conditions, NYCHA inspected a total of 44,535 individual building components. Of these, 26,487 were in satisfactory condition and 18,048 were in unsatisfactory condition. The unsatisfactory conditions resulted in 1,715 remediation work orders.⁴ NYCHA has yet to begin these remediations.

In regard to dust wipe samples in common areas, the risk assessors collected a total of 22,594 samples. Of these, 18,983 samples passed and 3,611 failed.⁵ The failures resulted in 396 remediation work orders. 145 of these work order have been completed as of July 28, 2021.

³ According to LHC, data reported below may fluctuate by 3-4% based on the closure of individual work orders following the work completion date.

⁴ As noted, this data may fluctuate by an estimated 3 – 4% based on correction of data entry errors.

⁵ As noted, this data may fluctuate by an estimated 3 – 4% based on correction of data entry errors.

With respect to exterior areas, the risk assessors conducted 2,222 inspections. In regard to paint conditions, NYCHA inspected a total of 8,208 individual building components. Of these, 4,986 had satisfactory paint conditions and 3,222 had unsatisfactory paint conditions. The unsatisfactory paint conditions resulted in the creation of 1,152 remediation work orders. 52 of these remediation work orders have been closed as of July 28, 2021. In addition, the risk assessors identified paint deficiencies on play structures at 32 developments with paint deficiencies. LHC has performed paint chip testing at 22 of the 32 developments, and the play structures tested negative for lead-based paint. Paint chip testing is in progress at the remaining 10 developments. While conducting the inspection, LHC did identify peeling paint on hand rails, fencing, and a bench support at five developments. Three of these developments have been painted and the two others are in progress.⁶

In regard to soil samples, 1908 samples passed and 10 samples failed. LHC performed interim controls in the locations where the soil samples failed.

On the whole, the 2020 biennial risk assessments provide a wealth of lead data regarding NYCHA apartments, common areas, and exterior areas. Under the Initial Lead Action Plan, NYCHA will use this data to create development specific lead-based paint Operations and Maintenance Plans that will be directed at each developments specific lead-based paint issues. The O&M plans are scheduled for completion by December 31, 2021.

Visual Assessments and Remediations

NYCHA continues to perform visual assessments on an annual basis, and will now perform two visual assessments per year for child under 6 apartments with known or presumed lead-based paint pursuant to the TEMPO program. While NYCHA has performed over 34,000 remediations⁷ over the past approximately two and a half years (and attempted to perform remediation for thousands of other work orders) based on these visual assessments. NYCHA continues to have an ongoing backlog of open work orders for remediation arising from the 2018, 2019, and 2020 visual assessments. The total number of open remediation work orders, by year, is as follows:

Round	CU6 Apartments w/ Open Remediation WOs	CU6 Apartments w/ No Record of Attempted Remediation	Non-CU6 Apartments w/ Open Remediation WOs	Non-CU6 Apartments w/ No Attempted Remediation
2018 Round	106	1	11,091 ⁸	1,748
2019 Round ⁹	78	4	2,849	901
2020 Round	2,927	894	3,218	2,868

Thus, despite significant effort, the amount of historically deferred work at NYCHA continues to necessitate significant resources to correct paint deficiencies in apartments. In addition, NYCHA continues

⁶ As noted, this data may fluctuate by an estimated 3 – 4% based on correction of data entry errors.

⁷ As previously disclosed, NYCHA did not perform clearance examinations for all of these remediations.

⁸ DMP staff indicate that this number may overcount the number of apartments with deficiencies, because some of these apartments may have tested negative through the XRF initiative. DMP will work to refine this number in line with the ongoing testing initiative.

⁹ In 2019, NYCHA added additional information regarding CU6 status from surveys and other data sources. When taking this additional information into account for the 2019 round, there are current 251 possible CU6 apartments with open remediation work orders, 67 of which have not had an attempted remediation.

to have a significant number of deficiencies in its common areas that also must be corrected in order to attain compliance.

I. Assessment of Compliance with Paragraph 14 for the Covered Period

General Statement

Field Monitoring Report: Documentation of the abatement field monitoring performed by EHS that is described in this section is set forth in Attachment A.

Abatement File Review: The Compliance Department Monitoring Unit (“MU”) performed a file¹⁰ review of 100 abatements in vacant units (“moveouts”) and 10 abatements in occupied units. The MU selected a random sample of 100 moveout abatement work orders out of a total of 164 work orders that had an “Actual Finish” date between December 16, 2020 to June 15, 2021 (“Covered Period”), and a work order status of “CLOSE” as of June 15, 2021. Additionally, the MU selected a random sample of 10 completed abatement work orders out of a total of 323 work orders in occupied units during the Covered Period, which included abatements for Elevated Blood Lead Level (“EBLL”), individualized projects¹¹, and NYCHA’s CU6 abatement initiative. When comparing results from the two sample reviews of vacant and occupied units, it should be noted that abatements in vacant units were selected for review once the work order was closed, while abatements in occupied units were selected for review if the abatement was completed, even if the work order status was still open. An open work order can signify not all required paperwork has been obtained, despite the completion of the abatement. However, the MU chose to capture this delay in its review to more closely monitor abatements in occupied units and the beginning stages of the CU6 abatement initiative. The results of this review are set forth in Attachment B.

Indicator	Description	Regulations	Agreement Section Referenced
1. XRF testing results	XRF Testing Results Performed Prior to Abatement	40 C.F.R. § 745.227(b)	2
2. XRF Vendor Certifications	Certification for XRF Testing Vendor	40 C.F.R. § 745.227(b)	2
3. EPA Notification	EPA was notified of abatement, and original notification is uploaded to Maximo	40 C.F.R. § 745.227(e)(4)	14(b)
4. Meets 5-Day EPA Requirement	EPA must be notified 5 full business days prior to the start of abatement	40 C.F.R. § 745.227(e)(4)(14(b)
5. Occupant Protection Plan	Completion of the Occupant Protection Plan	40 C.F.R. § 745.227(e)(5)	14(c)
6. Certified Supervisor Assigned	Certified lead abatement supervisor assigned to abatement with current certification on file	40 C.F.R. § 745.227(e)(1) – (3)	14(a)

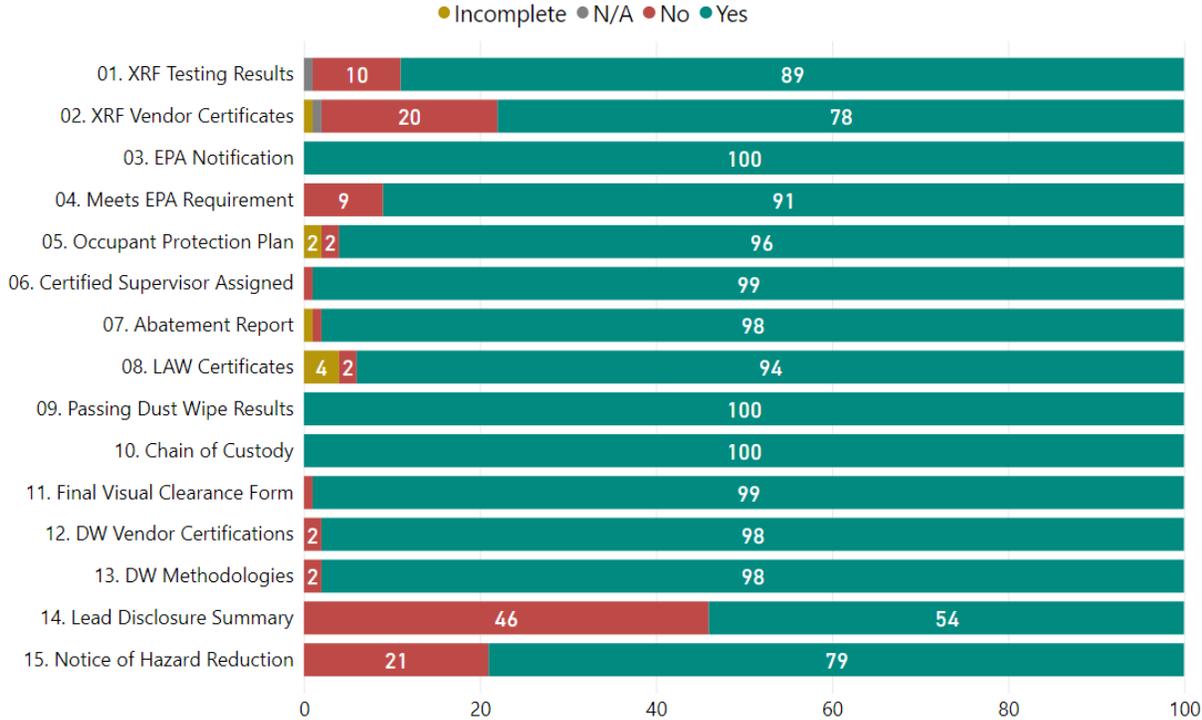
¹⁰ For the purposes of this review, “files” refers to Maximo work orders associated with a particular abatement.

¹¹ Includes resident requests, complaints, and court orders.

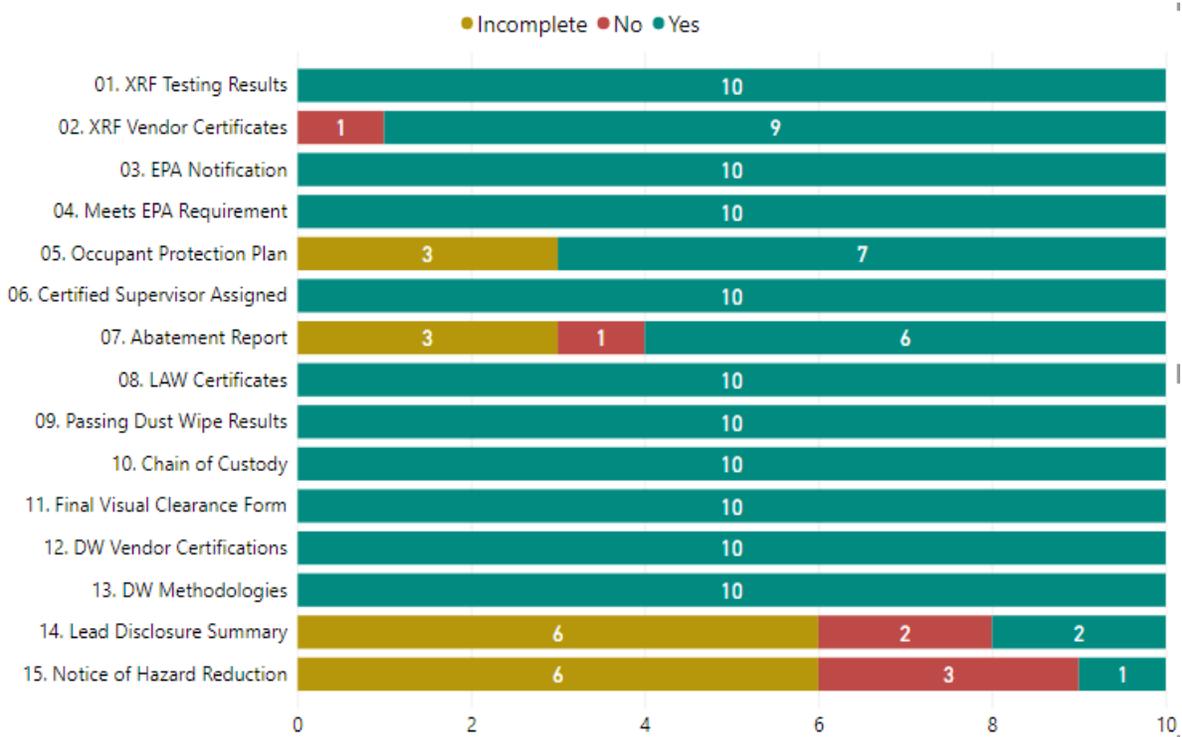
7. Abatement Report	Completion of Abatement Report	40 C.F.R. § 745.227(e)(10)	14(f)
8. LAW Certificates	Certifications on file for each lead abatement worker assigned to abatement	40 C.F.R. § 745.227(e)(1) – (3)	14(a)
9. Passing Dust Wipe Results	Final passing dust wipe results	40 C.F.R. § 745.227(e)(8)	14(e)
10. Chain of Custody	Chain of Custody completed for final passing dust wipe results	40 C.F.R. § 745.227(e)(8).	14(e)
11. Final Visual Clearance Form	Visual Clearance form completed for final passing dust wipe results	40 C.F.R. § 745.227(e)(8).	14(e)
12. DW Vendor Certifications	ELLAP and NLLAP Certifications	40 C.F.R. § 745.227(e)(8)	14(e)
13. DW Methodologies	Specified methods of collection and lab analysis of dust wipes	40 C.F.R. § 745.227(f)	14(d)
14. Lead Disclosure Summary	LHC sends to development for future tenants to sign prior to move-in disclosing abatement of lead hazard	24 CFR Part 35 Subpart A	14(g)
15. Notice of Hazard Reduction	LHC sends to development for future or present tenants detailing components abated in unit	24 CFR § 35.125	14 (g)

A summary of the overall results of the file review based on the 14 indicators is set forth below.

Summary of File Review for Abatements Performed in Vacant Units



Summary of File Review for Abatements Performed in Occupied Units



Paragraph 14(a): NYCHA shall ensure that a certified supervisor is onsite or otherwise available in accordance with 40 CFR § 745.227(e).

Regulatory Requirements for 14(a):

40 CFR §745.226(a) and (b)(1) sets forth the EPA-certification requirements for certified supervisors.

40 CFR §745.227(e)(2) states “A certified supervisor is required for each abatement project and shall be onsite during all work site preparation and during the post-abatement cleanup of work areas. At all other times when abatement activities are being conducted, the certified supervisor shall be onsite or available by telephone, pager or answering service, and able to be present at the work site in no more than 2 hours.”

Applicable NYCHA Written Policies, Procedures, and/or Contract Specifications for 14(a):

Written Policies and Procedures: The Lead SP sets (annexed as Attachment C) forth the following procedures related to requirement set forth in paragraph 14(a):

- A certified abatement supervisor:
 - Must be onsite during all work area preparation. The certified abatement supervisor confirms they are on site by entering the actual start time in Maximo. See Lead SP, § VII.G.1(j)(1)(b)(i).
 - Must be onsite or available on call and able to be present at the work area in no more than two hours at all other times when abatement activities are being performed. The

certified abatement supervisor must post their telephone number at the abatement location to ensure they can be contacted. See Lead SP, § VII.G.1(j)(1)(b)(ii).

Contract Specifications: During the Covered Period, NYCHA utilized three vendors to perform abatements. The specifications for the contracts (annexed in Attachment D) are described below:

Vendor Name	Agreement to comply with 40 CFR § 745.227 (e)
Linear	See Attachment D, § 1.1.6; <i>Id</i> , § 1.2.1; <i>Id</i> , § 1.4.5
Joseph Environmental	See Attachment D.1, § 1.1.6; <i>Id</i> , § 1.2.1; <i>Id</i> , § 1.4.5
ADG	See Attachment D.2 § 1.1.6; <i>Id</i> § 1.2.1; <i>Id</i> § 1.4.7

IT Controls for 14(a):

In December 2019, NYCHA placed controls within Maximo to reinforce the requirement for the lead abatement supervisor be onsite during the set up and clean-up phases for apartment work orders. The business requirements document (BRD) explaining the scope of this and other abatement-related IT controls is annexed as Attachment E. Maximo now has the following requirements for NYCHA performed and vendor performed abatement work orders:

- The system maintains the list of vendor personnel and NYCHA personnel who are certified as Lead Abatement Supervisors;
- Adding a trade skill level that is set to “Supervisor”;
- The abatement work order must have at least one labor transaction where the craft is that of a lead abatement supervisor. If it does not, the system will not allow the work order to be closed;
- Lead abatement work orders now must be made visible on handheld devices to both lead abatement workers and lead abatement supervisors.

Field Monitoring/QA for 14(a):

During the Covered Period, EHS observed 441 abatement jobs. A certified supervisor was present for 100% of these jobs. LOT evaluates whether the abatement supervisor is present on the jobsite during the required times, whether this is the supervisor listed on the NOC, and if he has his credentials are available for review and valid. See EHS Report (Attachment A) for additional information.

File Review for 14(a):

The MU conducted a review of work order records in Maximo to determine if certified supervisors were identified for each abatement, either as indicated in the Labor Information field in Maximo, or consistently listed on the abatement report, occupant protection plan (“OPP”), and EPA notification.

For Moveout Units:

The MU found that certified supervisors were identified on 99 of 100 (99%) moveout work orders. The 1 work order which did not have a certified supervisor identified was a moveout work order. The abatement was effectively cancelled because it was discovered that renovators had removed the lead-based paint component (baseboards) prior to the arrival of the abatement vendor. While 99% of work orders were indicated to have assigned supervisors with valid certifications, such

- If a vendor is performing the abatement, the vendor notifies the EPA at least five business days prior to the abatement using the EPA’s Central Data Exchange online portal. The vendor sends the EPA notice to a Lead Hazard Control Department assistant director. *Id.*
- The EPA notice is printed and attached to the work order. *Id.*
- If an abatement start date is changed so it will start before the original start date provided to the EPA, the updated notification must be provided to the EPA at least 5 business days before the new start date. VII.G.2(g)(a)(i)
- The updated notifications are attached to the work order. If a vendor performs these steps, they send the updated notifications to a Lead Hazard Control Department assistant director. *Id.*

Contract Specifications: During the Covered Period, NYCHA utilized three vendors to perform abatements. The specifications for the contracts are described below:

Vendor Name	Agreement to comply with 40 CFR § 745.227 (e)(4)(vi)
Linear	<i>See Attachment D, § 1.4.2; Id § 1.5.2; Id 2.4.2; Id § 2.6.3</i>
Joseph Environmental	<i>See Attachment D.1, § 1.4.2; Id § 1.5.2; Id 2.4.2; Id § 2.6.3</i>
ADG	<i>See Attachment D.2, § 1.4.2; Id § 1.5.2; Id 2.4.3; Id § 2.6.3</i>

[IT Controls for 14\(b\):](#)

In December 2019, NYCHA IT instituted additional controls for abatement work orders. One of these controls requires LHC to upload a copy of the EPA notification as an attachment to the Maximo work order. Without this attachment, the work order cannot be closed. *See Attachment E.*

[Field Monitoring/QA for 14\(b\):](#)

EHS has developed field monitoring checklists for assessing compliance with abatement requirements, including the requirements set forth in Paragraph 14(b). *See Attachment A.* The Lead Abatement Inspection Work Order contains the following items:

- Is the EPA Notice posted at the entrance of the work area?
- Does the work location including the unit number match the location on the EPA Notice of Commencement (“NOC”)?
- Is the abatement occurring within the timeframe specified on the NOC?
- Certified Abatement Supervisor: Does the abatement supervisor’s name match the name on the EPA NOC?

The NOC must include when work will start and end, the form’s EPA certification number, and the location where work will be conducted. During an Abatement observation, LOTS verifies that the notice is present, the required information is documented and accurate, and work is occurring within the timeframe indicated on the notice.

The LOT conducted 441 inspections and 100% complied with the NOC requirements. *See Attachment A* for more details.

[File Review for 14\(b\):](#)

The MU conducted a review of work order records in Maximo to determine if the EPA notification required by 40 CFR § 745.227(e)(4)(vii) was present in the relevant project files.

For Moveout Units:

The MU reviewed a total of 100 moveout work orders completed during the Covered Period. 100 of the 100 (100%) work orders reviewed submitted the EPA notification. In 91 (91%) work orders, NYCHA or the abatement vendor notified the EPA at least five or more business days ahead of the scheduled abatement or were emergency cases. Of the 9 (9%) work orders that did not meet EPA notification guidelines, 6 (67%) were performed by NYCHA and 3 (33%) were performed by a vendor. See Attachment B.

For Occupied Units:

The MU reviewed a total of 10 occupied work orders completed during the Covered Period. 10 of the 10 (100%) work orders reviewed submitted the EPA notification. In 10 (100%) work orders, NYCHA or the abatement vendor notified the EPA at least five or more business days ahead of the scheduled abatement or were emergency cases. Of the 10, 1 (10%) was an emergency abatement and therefore the EPA was notified less than five business days in advance. See Attachment B.

Overall Description of Compliance for 14(b):

During the Covered Period, NYCHA demonstrated substantial compliance with the requirement set forth in Paragraph 14(b) of the HUD Agreement. Evidence of compliance consists of:

- 100% of moveout abatements and 100% of occupied abatements reviewed notified the EPA prior to commencement.
- 91% of moveout abatements and 100% of occupied abatements notified the EPA in accordance with the required timeframe of greater than five business days or were emergency abatements.
- 100% of the field observations had complete and accurate Notices of Commencement.

Based on this documentation, there is evidence supporting that NYCHA is in substantial compliance with the most requirements set forth in 14(b).

Paragraph 14(c): NYCHA shall prepare and implement written occupant protection plans for all abatement projects in accordance with 40 CFR § 745.227(e)(5).

Regulatory Requirements for 14(c):

40 CFR § 745.227(e)(5) states: "A written occupant protection plan shall be developed for all abatement projects and shall be prepared according to the following procedures: (i) The occupant protection plan shall be unique to each residential dwelling or child-occupied facility and be developed prior to the abatement. The occupant protection plan shall describe the measures and management procedures that will be taken during the abatement to protect the building occupants from exposure to any lead-based paint hazards. (ii) A certified supervisor or project designer shall prepare the occupant protection plan."

Applicable Written Policies, Procedures, and Contract Specifications for 14(c):

Policies and Procedures: The Lead SP (effective January 21, 2020) sets forth the following procedures related to the requirements set forth in paragraph 14(c):

- Requires lead abatement supervisor or vendor to prepare and sign the Occupant Protection Plan (“OPP”). See SP § VII.F.2.d. The Lead SP includes requirements on what must be included in the OPP. *Id.* The Lead SP includes a template OPP. *Id.*, Appendix F.
- Requires that the OPP be annexed to the abatement work order. *Id.*, § VII.F.2.e. The plan must be provided to the resident if the unit is occupied. *Id.*, § VII.F.1.g. It must be posted in common areas. *Id.* § VII.F.2.d(3)

Contract Specifications: During the Covered Period, NYCHA utilized three vendors to perform abatements. The specifications for the contracts are described below:

Vendor Name	Agreement to comply with 40 CFR § 745.227 (e)(5)
Linear	See Attachment D, § 3.6.1
Joseph Environmental	See Attachment D.1, § 3.6.1
ADG	See Attachment D.2, § 3.3.3

[IT Controls for 14\(c\):](#)

In December 2019, IT enhanced Maximo to require that the OPP be attached to Maximo abatement work orders. See Attachment E. The work orders cannot be closed without this attachment.

[Field Monitoring/QA for 14\(c\):](#)

EHS finalized its inspection work order for abatement projects. The inspection checklist includes the following items:

- Does the Occupant Location on the Occupant Protection Plan match the unit’s occupancy status during the abatement i.e. Occupied vs Unoccupied?
- The abatement inspection work order also includes numerous items regarding specific lead safe work practices.

The LOTS reviewed 441 OPPs during abatement oversight inspections All abatements had completed OPPs. See Attachment A for more details.

[File Review for 14\(c\):](#)

The MU conducted a review of work orders in Maximo to determine if the written OPP required by 40 CFR § 745.227(e)(5) was uploaded in the relevant work orders.

For Moveout Units:

The Compliance Department reviewed a total of 100 moveout work orders, 96 (96%) of which contained a complete OPP. In 2 instances (2%), the OPP was uploaded but missing information on whether the apartment was vacant or occupied. In 2 other instances (2%), an OPP was not found. See Attachment B.

For Occupied Units:

The Compliance Department reviewed a total of 10 occupied work orders, 7 (70%) of which contained a correctly completed OPP. In the remaining 3 instances (30%), the OPP was uploaded but had marked the abatement as a vacant unit instead of an occupied unit. The MU reviewed these findings with LHC, who notified vendor and in-house lead abatement supervisors on the correct procedure to complete an OPP. See Attachment B.

Overall Compliance Assessment for 14(c):

- 96% of moveout abatements and 70% of occupied abatements reviewed contained a complete OPP.
- Lead abatement supervisors and vendors are not consistently completing the vacancy section of the OPP correctly. As a result of findings from this review, LHC informed lead abatement supervisors and vendors regarding the correct procedure to complete an OPP, especially for occupied units.
- EHS observed 441 abatement work orders and 100% had OPPs.

Based on the results of file review of occupied abatement work orders, Compliance believes NYCHA is in substantial compliance with 14(c), but has compliance concerns about the three OPPs for occupied apartments that designated the unit as vacant. This issue will continue to be monitored by Compliance in upcoming Lead Compliance Assurance Program reports.

Paragraph 14(d): NYCHA shall specify methods of collection and lab analysis in accordance with 40 CFR § 745.227(f).

Regulatory Requirements for 14(d):

40 CFR § 745.227(f) states: “Any paint chip, dust, or soil samples collected pursuant to the work practice standards contained in this section shall be: (1) Collected by persons certified by EPA as an inspector or risk assessor; and (2) Analyzed by a laboratory recognized by EPA pursuant to section 405(b) of TSCA as being capable of performing analyses for lead compounds in paint chip, dust, and soil samples.”

Applicable Written Policies, Procedures, and Contract Specifications for 14(d):

Policies and Procedures: The Lead SP (effective September 9, 2020) contains the following procedures related to Paragraph 14(d):

- Clearance examinations following abatement must be performed by a certified risk assessor or lead inspector. Lead SP, § VII.H.1. If the work is to be performed by a vendor, the LHC Assistant Director must ensure that the vendor submits the documentation meeting this requirement. *Id.*, § VII.H.3.
- Dust wipe samples following abatement must be submitted to an EPA National Lead Laboratory Accreditation Program (“NLLAP”) and New York State Environmental Laboratory Approval Program (“ELAP”) certified testing laboratory. Lead SP, § VII.H.5.
- Paint chip sampling (which is performed during lead paint inspections in advance of an abatement) must be performed by a certified risk assessor or lead inspector. Lead SP, § VII.E.2. These samples must be submitted to an EPA NLLAP-recognized and New York State ELAP certified testing laboratory. *Id.*

Contract Specifications: During the Covered Period, NYCHA utilized nine vendors to perform dust wipes. The specifications for the contracts are described below and contracts are annexed in Attachment D.

Vendor Name	Agreement to comply with 40 CFR § 745.227 (f)
Accurate Analysis Testing	See Attachment D, § I.A , § II.C.1-3, § III.D.1-2
Atlas Environmental Lab	See Attachment D, § I.A, § § II.C 1-2, § III.D 1-2
Eastern Analytical Services	See Attachment D, § I.A , § II.C.1-3, § III.D.1-2.
EMSL Analytical Inc.	See Attachment D, § I.A, § II.C.1-3 § III.D.1-2.
Genesis Environmental Consultants	See Attachment D, § I.A, § § II.C 1-2, § III.D 1-2
Laboratory Testing Services	See Attachment D, § I.A ,§ II.C.1-3, § III.D.1-2.
Metro Analytical Laboratories	See Attachment D, § II.C.1-3, § III.D.1-2.
The ALC Group	See Attachment D, § I.A, § § II.C 1-2, § III.D 1-2
Warren & Panzer Engineers	See Attachment D, § I.A, § § II.C 1-2, § III.D 1-2

[IT Controls for 14\(d\):](#)

In December 2019, NYCHA IT enhanced Maximo to require that the abatement report, which should include the credentials of individuals and laboratories performing sampling/testing, be uploaded to the work order. The work order cannot be closed without these attachments. See Attachment E.

[QA/Field Monitoring Protocols for 14\(d\):](#)

Data on certifications and personnel is not included in this reporting period. However, LOT did not report any failures related to lead abatement personnel certifications. See Attachment A.

[File Review for 14\(d\):](#)

The MU conducted a review of work orders in Maximo to determine if documented methodologies specifying certifications of inspectors, risk assessors, and laboratories are contained in each file, as well as copies of relevant EPA certifications in accordance with the Lead SP.

For Moveout Units:

The MU reviewed a total of 100 moveout work orders, and 98 of 100 (98%) files contained documented methodologies for collection and lab analysis of dust wipes. Of the 2 (2%) files that did not contain documented methodologies, 1 (50%) were dust wipes handled by a vendor, and 1 (50%) were for dust wipes handled by NYCHA. See Attachment B.

For Occupied Units:

The MU reviewed a total of 10 occupied work orders, and 10 of 10 (100%) files contained documented methodologies for collection and lab analysis of dust wipes. See Attachment B.

Overall Compliance Assessment for 14(d):

During the Covered Period, NYCHA demonstrated substantial compliance with the requirement set forth in Paragraph 14(d) of the HUD Agreement. Evidence of compliance consists of:

- 98% of moveout abatements and 100% of occupied abatements reviewed contained documented methodologies for collection and lab analysis of dust wipes.

Based on the documentation, NYCHA is in compliance with the requirements of 14(d).

Paragraph 14(e): “NYCHA shall ensure that a clearance examination is performed, and a clearance examination report provided by a lead paint inspector/risk assessor certified and licensed as applicable for the property location, in accordance with 24 CFR § 745.227(e) (8)-(9). The lead paint inspector/risk assessor must be independent of the lead-based paint abatement firm, supervisor, and contractors performing the abatement work.

Regulatory Requirements for 14(e):

40 CFR § 745.227(e)(8) states, in relevant part: The following post-abatement clearance procedures shall be performed only by a certified inspector or risk assessor

“(i) Following an abatement, a visual inspection shall be performed to determine if deteriorated painted surfaces and/or visible amounts of dust, debris or residue are still present. If deteriorated painted surfaces or visible amounts of dust, debris or residue are present, these conditions must be eliminated prior to the continuation of the clearance procedures.

(i) Following the visual inspection and any post-abatement cleanup required by paragraph (e)(8)(i) of this section, clearance sampling for lead in dust shall be conducted. Clearance sampling may be conducted by employing single-surface sampling or composite sampling techniques.

(ii) Dust samples for clearance purposes shall be taken using documented methodologies that incorporate adequate quality control procedures.

(iii) Dust samples for clearance purposes shall be taken a minimum of 1 hour after completion of final post- abatement cleanup activities.

(iv) The following post-abatement clearance activities shall be conducted as appropriate based upon the extent or manner of abatement activities conducted in or to the residential dwelling or child-occupied facility:

(A) After conducting an abatement with containment between abated and unabated areas, one dust sample shall be taken from one interior window sill and from one window trough (if present) and one dust sample shall be taken from the floors of each of no less than four rooms, hallways or stairwells within the containment area. In addition, one dust sample shall be taken from the floor outside the containment

area. If there are less than four rooms, hallways or stairwells within the containment area, then all rooms, hallways or stairwells shall be sampled.

(B) After conducting an abatement with no containment, two dust samples shall be taken from each of no less than four rooms, hallways or stairwells in the residential dwelling or child-occupied facility. One dust sample shall be taken from one interior window sill and window trough (if present) and one dust sample shall be taken from the floor of each room, hallway or stairwell selected. If there are less than four rooms, hallways or stairwells within the residential dwelling or child-occupied facility then all rooms, hallways or stairwells shall be sampled.

(C) [*Exterior abatement provision omitted*]

(v) The rooms, hallways or stairwells selected for sampling shall be selected according to documented methodologies.

(vi) The certified inspector or risk assessor shall compare the residual lead level (as determined by the laboratory analysis) from each single surface dust sample with clearance levels in paragraph (e)(8)(viii) of this section for lead in dust on floors, interior window sills, and window troughs or from each composite dust sample with the applicable clearance levels for lead in dust on floors, interior window sills, and window troughs divided by half the number of subsamples in the composite sample. If the residual lead level in a single surface dust sample equals or exceeds the applicable clearance level or if the residual lead level in a composite dust sample equals or exceeds the applicable clearance level divided by half the number of subsamples in the composite sample, the components represented by the failed sample shall be recleaned and retested.

(vii) The clearance levels for lead in dust are 40 µg/ft² for floors, 250 µg/ft² for interior windowsills, and 400 µg/ft² for window troughs.”¹²

**** NYCHA has not utilized the random sampling clearance methodology during this reporting period, so this section intentionally omits 40 CFR 745.227(e)(9).*

[Applicable Written Policies, Procedures, and Contract Specifications for 14\(e\):](#)

The Lead SP contains the following provisions on the requirements set forth in Paragraph 14(e):

- Requires that the clearance examination be performed by a certified risk assessor or lead paint inspector. Lead SP, § VII.H.1.
- Requires the certified risk assessor or certified lead paint inspector perform a visual inspection and sets forth the protocols if the work area fails the visual inspection. Lead SP, § VII.H.4.
- Sets forth the basic protocols for the certified risk assessor or lead inspector to follow for dust wipe sampling. Lead SP, § VII.H.5. The Lead SP does not provide detailed means and methods on how the risk assessor and lead inspector needs to conduct the dust wipe samples.
- Requires that the clearance be documented in a dust wipe report. Lead SP, § VII.H.5.
- Requires the dust wipe report be uploaded to Maximo. Lead SP, § VII.H.G.

¹² Lead dust clearance standards in New York City during most of the Covered Period were as follows: 10 µg/ft² for floors; 50 µg/ft² for window sills; and 100 µg/ft² for window wells (troughs). On June 1, 2021, the City reduced the standard for floors to 5 µg/ft² for floors and to 40 µg/ft² for window sills.

The MU conducted a review of work orders in Maximo to determine if a clearance examination was performed, and a clearance examination report was provided by a licensed lead paint inspector/risk assessor, independent of the contractors performing the abatement work. The MU ensured that the clearance examination report included passing dust wipe results, a chain of custody, a visual clearance form, and certifications for the risk assessor and laboratory.

For Moveout Units:

The MU reviewed 100 moveout abatement work orders. Of these, 100 (100%) contained passing dust wipe results, 100 (100%) contained the chain of custody, 99 (99%) contained the visual clearance form, and 98 (98%) contained certifications for both the risk assessor and laboratory. See Attachment B.

For Occupied Units:

The MU reviewed 10 occupied abatement work orders. Of these, 10 (100%) contained passing dust wipe results, 10 (100%) contained the chain of custody, 10 (100%) contained the visual clearance form, and 10 (100%) contained certifications for both the risk assessor and laboratory. See Attachment B.

Overall Compliance Assessment for 14(e):

During the Covered Period, NYCHA demonstrated substantial compliance with the requirement set forth in Paragraph 14(e) of the HUD Agreement. Evidence of compliance consists of:

- 100% of moveout abatements and 100% of occupied abatements reviewed contained passing dust wipe results.
- 98% of moveout abatements and 100% of occupied abatements contained all required documentation for a clearance examination report.
- All (50) employees and (272) vendors performing clearance examinations were certified.
- EHS observed 322 visual inspections and all were compliant.
- ESH observed 322 sample collection and 99.7% were compliant.

Based on the file review and filed oversight during the Covered Period, NYCHA is in substantial compliance with the requirements referenced in Paragraph 14(e). However, Compliance has concerns about worksite restrictions used when abatement is in occupied apartments and taking place in a bathroom, bedroom, or kitchen.

Paragraph 14(f): NYCHA shall ensure that the certified supervisor on each abatement project prepares an abatement report in accordance with 40 CFR § 745.227(e)(10).

Regulatory Requirements for 14(f):

40 CFR § 745.227(e)(10) states as follows: "An abatement report shall be prepared by a certified supervisor or project designer. The abatement report shall include the following information: (i) Start and completion dates of abatement. (ii) The name and address of each certified firm conducting the abatement and the name of each supervisor assigned to the abatement project. (iii) The occupant protection plan prepared pursuant to paragraph (e)(5) of this section. (iv) The name, address, and signature of each certified risk assessor or inspector conducting clearance sampling and the date of

clearance testing. (v) The results of clearance testing and all soil analyses (if applicable) and the name of each recognized laboratory that conducted the analyses. (vi) A detailed written description of the abatement, including abatement methods used, locations of rooms and/or components where abatement occurred, reason for selecting abatement methods for each component, and any suggested monitoring of encapsulants or enclosures.”

[Applicable Written Policies, Procedures, and Contract Specifications for 14\(f\):](#)

Policies and Procedures: The Lead SP sets forth the following procedures related to the requirements set forth in paragraph 14(f):

- Requires that the certified abatement supervisor for each abatement project prepare an abatement report within 30 days of clearance. See Lead SP, § VII.H.9. The report must contain all of the items set forth in 24 CFR § 745.227(e)(10). *Id.*
- LHC adopted a template for certified supervisors to use in preparing the report. A copy of this template is annexed as Attachment F.

Contract Specifications: During the Covered Period, NYCHA utilized three vendors to perform abatements. The specifications for the contracts are described below:

Vendor Name	Agreement to comply with 40 CFR § 745.227 (e)(5)
Linear	See Attachment D, § 1.1.6
Joseph Environmental	See Attachment D.1, § 1.1.6
ADG	See Attachment D.2, § 1.1.6

[IT Controls for 14\(f\):](#)

In December 2019, NYCHA IT enhanced Maximo to require staff to upload the abatement report to the abatement work order. The work order cannot be closed without this attachment. See Exhibit E.

[Field Oversight/QA for 14\(f\):](#)

There are no field oversight protocols in place or expected to monitor the creation of this final report.

[File Review for 14\(f\):](#)

The MU conducted a review of work orders in Maximo for an abatement report in accordance with 40 CFR § 745.227(e)(10) and prepared by a certified supervisor.

For Moveout Units:

The MU reviewed 100 moveout abatement work orders. Of these, 98 (98%) contained the abatement report prepared by a certified supervisor. Out of the 2 that did not, 1 (50%) listed a certified supervisor assigned to the abatement but did not contain the supervisor’s signature, and 1 (50%) did not have an abatement report due to the positive component (baseboard) being removed by renovators prior to the arrival of the abatement vendor. See Attachment B.

For Occupied Units:

The MU reviewed 10 occupied abatement work orders. Of these, 6 (60%) contained the abatement report prepared by a certified supervisor. Out of the 4 that did not, 3 (75%) contained missing or inaccurate information regarding the status of the unit as occupied or vacant. 1 (25%) abatement work order did not contain the abatement report in Maximo. See Attachment B.

Overall Compliance Assessment for 14(f):

During the Covered Period, NYCHA made progress towards compliance with the requirement set forth in Paragraph 14(f) of the HUD Agreement. Nonetheless, NYCHA must improve its abatement report practices in occupied apartments. Evidence of progress consists of:

- 98% of moveout abatements and 60% of occupied abatements reviewed contained an abatement report prepared by a certified supervisor.
- Lead abatement supervisors and vendors are not consistently completing the vacancy section and “reason for abatement” section of the abatement report correctly. As a result of findings from this review, LHC informed lead abatement supervisors and vendors regarding the correct procedure to complete an abatement report, especially for occupied units.

Based on this documentation, there is evidence supporting that NYCHA is making progress towards compliance with the requirements set forth in 14(f).

Paragraph 14(g): NYCHA shall maintain records in accordance with 40 CFR § 745.227(i) and 24 CFR § 35.125.

Regulatory Requirements for 14(g):

40 CFR § 745.227(i) states “All reports or plans required in this section shall be maintained by the certified firm or individual who prepared the report for no fewer than 3 years. The certified firm or individual also shall provide copies of these reports to the building owner who contracted for its services.”

24 CFR §35.125 states, “The designated party ... shall keep a copy of each notice, evaluation, and clearance or abatement report required by subparts C, D, and F through M of this part for at least three years. Those records applicable to a portion of a residential property for which ongoing lead-based paint maintenance and/or reevaluation activities are required shall be kept and made available for the Department's review, until at least three years after such activities are no longer required.”

For purposes of this review, the MU will review current files to ensure that they contain the necessary documentation to meet the record-keeping requirements, and that protocols are in place to store the records going forward. The MU has not, and does not intend to, conduct a retroactive review of files created before the January 31, 2019 HUD Agreement for compliance with record-keeping requirements.

Applicable Written Policies, Procedures, and Contract Specifications for 14(g):

Policies and Procedures: The Lead SP (effective January 21, 2020) sets forth the following procedures related to the requirements set forth in paragraph 14(g):

- “A Lead Hazard Control Department assistant director ensures all records related to this Standard Procedure are retained in the Lead Hazard Control Department central office for the life of the building while under NYCHA ownership, plus an additional three years.” See Lead SP, § VIII.C.

- Requires issuance of the hazard reduction letter following abatement activities. See Lead SP, § VII.D.2.

[IT Controls for 14\(g\):](#)

NYCHA does not have IT controls that support this requirement, although as of December 2019, the OPP, the EPA notification, and abatement reports can be attached to the Maximo work orders.

[Field Monitoring/QA for 14\(g\):](#)

Per LHC, before NYCHA deems a file complete, it requires that Lead Hazard Control staff review the file's contents and ensure that it contains the documentation for a completed file before it is sent to the central storage facility in Long Island City. Due to COVID-19 restrictions, Lead Hazard Control is not compiling a final paper file. Instead, staff verify that Maximo has all records before the Notice of Disclosure is issued.

[File Review for 14\(g\):](#)

The MU has performed a comprehensive review of required reports for abatements performed in NYCHA units since January 31, 2019 and has been performing a digital review of required reports in Maximo starting January 16, 2020. Reports in Maximo are presently retained indefinitely and in accordance with the three-year minimum as specified in 40 CFR § 745.227(i) and 24 CFR §35.125.

The MU performed a file review of the Notice of Hazard Reduction (NOHR), which was incorporated into the LHC abatement process on February 25, 2021 and revised on April 20, 2021. While the NOHR's issuance is consistent for vacant apartments, it appears less consistent for occupied apartments.

For Moveout Units:

The MU reviewed 100 moveout abatement work orders. Of these, 79 (79%) contained the NOHR.

Of the 100 reviewed moveout abatement work orders, 54 (43%) contained the Lead Disclosure Summary.

For Occupied Units:

The MU reviewed 10 occupied abatement work orders. As of July 13, 2021, 4 (40%) contained the NOHR. For the other apartments, LHC is awaiting corrected documentation regarding the project before issuing the NOHR..

As of July 13, 2021, of the 10 reviewed occupied abatement work orders, 8 (80%) contained the Lead Disclosure Summary. However, there have been delays in issuing these documents are in part due to the errors in vendor paperwork which require resubmission that are associated with the CU6 abatement initiative.

[Overall Compliance Assessment for 14\(g\):](#)

During the Covered Period, NYCHA made demonstrable progress towards compliance with the recordkeeping requirement set forth in Paragraph 14(g) of the HUD Agreement. Evidence of progress towards compliance consists of:

- Documented establishment of Maximo IT Control to require the OPP, the EPA Notice, and the Abatement Report to be uploaded to the work order;
- LHC demonstrated maintenance of all work orders in Maximo to the Compliance Department (although a small number of work orders were missing required documentation).
- Lead SP including the requirements set forth in Paragraph 14(g).

With respect to NOHR letters, the Compliance Department reviewed a sample of files for purposes of this certification. Given that the hazard reduction letter process has presented a compliance challenge for NYCHA in the context of interim controls in occupied units, Compliance does not yet recommend certifying to paragraph 14(g) until the NOHRs are consistently issued in the required timeframe.

II. [Paragraph 15](#)

[Paragraph 15\(a\): Establishing and maintaining sufficient information in NYCHA's renovation and maintenance computer systems to readily identify renovation and maintenance projects involving work to which lead-safe work practices regulations apply in accordance with 24 CFR §§ 35.1330, 35.1350 and 40 CFR §§ 745.85, 745.89.](#)

[Regulatory Requirements for 15\(a\):](#)

NYCHA interprets this requirement as ensuring that its computerized work order system, Maximo, can identify developments in which paint disturbing projects require adherence to lead safe work practices, as those requirements are defined in the above-cited regulations.

[Written Policies, Procedures, and/or Contract Specifications for 15\(a\):](#)

Policies and Procedures: The Lead SP states as follows: “Maximo flags locations in which lead-based paint is or may be present and identifies when RRP requirements must be met. If a Maximo work order identifies that RRP is required and there are no results of an XRF test in that apartment available in Maximo, all painted surfaces in an apartment or component must be presumed to be lead-based paint.” See Lead SP, § VII.1.3.a.(1).

Quick Reference Guides: NYCHA also published two Quick Reference Guides (“QRG”) related to RRP work and the “RRP flag.” The first, entitled “Lead Safe Work Practices: Renovation, Repair, and Painting Work” (Attachment G) provides a 5-page overview of the RRP process for NYCHA renovators. The second QRG, entitled “Renovation, Repair, and Painting (RRP) Work: Identifying Lead Components,” (Attachment G) provides a two-page overview of the “RRP flag” in Maximo, and provides examples of building components that may appear in the system. Both QRGs are available on the NYCHA Forms and Reference Library (“FRL”).

[IT Controls for 15\(a\):](#)

Based on prior lead inspection data, Maximo places a “RRP flag” on units that could require RRP work. A training document explaining this IT enhancement is annexed as Attachment H.

In February 2020, NYCHA enhanced the “RRP flag” for units that have received an individual XRF inspection through the 2019 XRF Initiative. Once a unit receives a new XRF test and the results are placed into

Maximo, the “RRP flag” will be moved from the unit level to the building component level and made available to NYCHA renovators performing work in the apartment on their handhelds.

Before the commencement of work, Maximo asks the user “Are you performing RRP work that would disturb the components listed below?” See Attachment H, Slides 4 through 6. The work order then lists the individual positive components by Room/Side/Component/Substrate. See Attachment H, Slide 4. If a specific component is positive for an entire room, the work order will state Room/All/Component/Substrate. See Attachment I, Slide 4. The renovator must then select any positive components that they may disturb in their work. See Attachment H, Slide 6. If the renovator is not disturbing any of the positive components, they must select “None from List.” See Attachment H, Slide 14. After the renovator makes their selection, they are prompted with the following certification: “I certify that the above-information is true and complete.” See Attachment H, Slides 6 and 14.

If the renovator selects positive components, the work will be performed under RRP work requirements, and the work order requires completion of the pre-renovator acknowledge form, adherence to lead safe work practices, the post renovation checklist, and a clearance examination. See Attachment H, Slides 7 through 12. If the renovator is not disturbing positive components, the work order is performed under standard work rules.

The component-level “RRP flag” is only activated after the unit is XRF tested and the XRF results are loaded into Maximo. See Attachment H, Slides 2, 3, and 22. Until that happens, the “RRP flag” remains at the unit level, meaning that any work order disturbing painted surfaces must be performed under RRP Rules. In addition, the NYCHA determined to retain the unit-level “RRP flag” for six high risk developments, so that all paint disturbing work must follow RRP work rules. The six developments are East River, Harlem River I, Harlem River II, Williamsburg, Gravesend, and Manhattanville. See Attachment I, Slide 18. In addition, for units that tested negative through the 2019 XRF initiative, the work order will remove the “RRP flag” and replace it with the following notification “Apartment XRF Results are Negative.” See Attachment H, Slide 19.

NYCHA took several actions in its implementation of the new component level flag. NYCHA sought review and comment on the component level enhancement from the Federal Monitor, HUD, and SDNY. Then, before the new component-level “RRP flag” went live in the system, NYCHA IT performed user acceptance testing in February 2020. NYCHA provided live training on the new component level “RRP flag” for development staff and skilled trades from February 27, 2020 to March 6, 2020. The training materials are annexed as Attachment H (note, training materials were revised during the training – the final version is attached).

During the Covered Period, NYCHA Compliance identified a gap in Maximo’s RRP enforcement protocols. Compliance discovered that apartments that tested positive through the 2019 XRF initiative in buildings considered exempt under federal and/or local law were not automatically made subject to the RRP enforcement protocols upon testing positive. Thus, once the apartment tested positive, the system would not be updated and the NYCHA staff member would not know that RRP was required for certain components. After this gap was identified, in March 2021, NYCHA IT instituted a short term solution by placing a temporary warning banner on work orders for these apartments. Then, on April 8, 2021, NYCHA IT updated the work order system to automatically turn on the RRP enforcement flag whenever an apartment tests positive. See Maximo/iWM Release 3.11.2, annexed as Attachment I.

Field Monitoring/QA for 15(a):

Please refer to the EHS report (Attachment A) for a description of RRP-related field monitoring activities during the Covered Period. Additionally, it should be noted that EHS uses Maximo to identify work orders that might require RRP procedures for their onsite monitoring. EHS conducted onsite monitoring of 309 work orders during the Covered Period. EHS does not solely rely on Maximo to identify vendor work because some vendors use paper work orders to document their work.

In addition to EHS's oversight of RRP work practices, in June 2021, Compliance began conducting site visits to specifically evaluate how NYCHA staff and vendors answer and interpret the RRP work order enforcement questions contained in the Maximo work orders. Compliance decided that this was necessary after conducting an inquiry on whether NYCHA renovators are properly answering the RRP enforcement questions. A more detailed explanation of this review is below in the "File Review for 15(a)" section below.

In the two site visits that Compliance has conducted to date, Compliance staff has identified several control weaknesses that must be addressed through IT enhancements and additional staff training and supervision. These concerns are as follows:

- **Ensuring that the Correct Failure Class/Problem Code is Used When Creating RRP Work Orders:** The renovator is only required to answer the RRP enforcement questions when the work order is for Failure Class/Problem Codes (FC/PCs) for activities that may disturb lead-based paint. If these specific FC/PCs are not used when creating the work order, the RRP enforcement questions are made optional. Compliance identified one work order at a high risk lead-development where the work order contained the problem code "follow-up" for a job that entailed removing damaged cabinets and significant wall plastering. The ticket was created by in-office staff. Because the problem code "follow-up" was used, the renovator was not mandated to answer the RRP work order enforcement question, and was not required to complete the pre- and post-renovation forms, or have a dust wipe performed. It should be noted that photos annexed to the work order indicate that the renovator did use containment while performing the job. The solution for this issue is an IT enhancement to add the problem code "follow-up" to the list of problem codes that will mandate the use of the RRP enforcement questions.
- **Ensuring Staff Performing RRP Work Have Their Handhelds With Them While Performing the Work:** NYCHA relies heavily on renovators using their handheld devices when performing potential RRP work. The handhelds contain the required checklists, and can also contain information on where lead is located in the apartment. Compliance identified one plumber that did not bring his handheld to work when performing a job in apartment subject to RRP requirements. The area where the plumber was working did not have lead-based paint components, but he could not know this without the information contained in his handheld device. Thus, NYCHA skilled trade supervisors must hold staff accountable for bringing the handheld to all required jobs, but especially jobs potentially requiring RRP.
- **Ensuring Vendor Staff Have All Necessary Information Contained in the Maximo Work Order Before Performing Jobs that May Require RRP:** NYCHA vendors performing RRP work do not have handheld devices and thus are not able to enter the information electronically. However,

the same information can be provided to the vendor on paper work orders printed by the development or NYCHA department managing the vendor. During its monitoring, Compliance identified a vendor painter that did not have copies of the paper work order, or any information about the apartment's lead status. Instead, the vendor painter had been texted a list of apartments by his employer. The vendor painter also did not check in with the development to obtain information about the apartments he planned to work on and, even if he had, the vendor painter only spoke Spanish while the work orders are in English. This is just one example of how the current oversight of vendors performing potential RRP work will inhibit NYCHA's ability to certified compliance with Paragraph 15.

- **Staff Need to Additional Ongoing Training and Guidance on How to Address Certain Complicated Scenarios Created by RRP Enforcement Questions:** The addition of the XRF data into Maximo has been very helpful, but it has also created complicated scenarios when addressing individual work orders. When Compliance conducted its monitoring, it identified one such scenario. A plasterer was working in an apartment where the RRP enforcement question had been answered "Yes" before he conducted labor on the work order. However, the apartment had also tested negative through the XRF initiative, and thus did not require RRP. However, once the RRP question is answered "Yes" it cannot be changed to "No" except by NYCHA IT, and an individual plasterer would not likely be able to have this circumstance addressed. Therefore, while NYCHA did provide training on the RRP enforcement question in 2020, additional training is needed and each trade must also have the ability to submit "on the job" questions on how to appropriately address this type of complex scenario.

In sum, EHS field monitoring exhibits a high rate of compliance when the RRP work order enforcement questions are followed appropriately. However, the recent Compliance site visits (as well as the information discussed in the "File Review for 15(a)" section below) indicate there are still ways to intentionally or unintentionally circumvent the RRP work order enforcement questions, creating a risk of non-compliance. As explained above, these risks can be reduced with improved vendor and staff supervision, IT enhancements to fill gaps, and more consistent training and guidance to staff on RRP work order protocols.

[File Review for 15\(a\):](#)

Potential RRP work orders contain a "flag" in Maximo signifying the presence of presumed or known lead-based paint in the apartment. The "RRP banner" reads: "ACTION REQUIRED: RRP-certified staff/vendor must be used and Lead Safe Work Practices must be followed." This "RRP flag" then requires that any paint-disturbing work in the unit requires renovators to follow RRP protocols, including a clearance examination.

When a renovator performs work in a unit with the RRP enforcement flag, the Maximo work order asks the renovator to answer questions about the work they are performing. For units where post-2019 XRF inspections have been performed, the Maximo work order identifies which specific components are positive for lead-based paint. The certified renovator then must use their handheld device to select any positive components that their work affects or indicate that their work will not affect any of the components. The renovator must certify that they are making the proper selection. If the renovator selects positive component(s), the work must follow all RRP requirements, including RRP documentation

and lead clearance examinations. If the renovator is not affecting any of the components, the renovator will follow normal work practices. If a unit has not yet been XRF tested, the “RRP banner” will remain at the unit level until the unit is XRF tested, meaning that all work orders that disturb paint must follow RRP rules. In the apartments that have not received XRF testing, the RRP enforcement question asks, “Are you performing RRP work?” which requires a “yes” or “no” answer.

As indicated in the “Field Monitoring/QA for 15(a)” section above, Compliance is conducting an ongoing inquiry of whether NYCHA renovators are properly answering the RRP enforcement questions. If renovators do not properly answer these questions, there is a high risk that they will not follow RRP protocols during their work including the required pre- and post-renovation checklist, and the performance of clearance examinations.

The table below shows that, for 94.8% (34,517 out of 36,397) of work orders closed between December 2020 to May 2021 where renovators must answer the RRP enforcement questions, renovators indicated that they were not performing RRP work. This trend is concerning and requires continued monitoring of whether the workers’ selection of “No” or “No Components Selected” to the RRP enforcement questions is appropriate.

RRP Selection from December 2020 to May 2021

	No Count	%	Yes Count	%	Blank count	%	Total
2020-12							
Bronx	1,276	91.8%	112	8.1%	2	0.1%	1,390
Brooklyn	1,607	96.6%	55	3.3%	2	0.1%	1,664
Manhattan	2,364	91.5%	221	8.5%		0.0%	2,585
Queens	711	98.6%	10	1.4%		0.0%	721
Staten Island	138	100.0%		0.0%		0.0%	138
2021-01							
Bronx	1,156	94.4%	68	5.6%		0.0%	1,224
Brooklyn	1,431	96.8%	48	3.2%		0.0%	1,479
Manhattan	2,362	96.0%	95	3.9%	3	0.1%	2,460
Queens	593	94.9%	32	5.1%		0.0%	625
Staten Island	131	99.2%	1	0.8%		0.0%	132
2021-02							
Bronx	966	94.4%	57	5.6%		0.0%	1,023
Brooklyn	1,242	93.5%	84	6.3%	2	0.2%	1,328
Manhattan	1,939	95.4%	92	4.5%	2	0.1%	2,033
Queens	588	95.9%	24	3.9%	1	0.2%	613
Staten Island	79	96.3%	2	2.4%	1	1.2%	82
2021-03							
Bronx	1,558	91.6%	142	8.4%		0.0%	1,700
Brooklyn	1,821	94.6%	103	5.4%	1	0.1%	1,925
Manhattan	2,229	94.9%	117	5.0%	2	0.1%	2,348

	No Count	%	Yes Count	%	Blank count	%	Total
Queens	938	92.3%	78	7.7%		0.0%	1,016
Staten Island	142	98.6%	2	1.4%		0.0%	144
2021-04							
Bronx	1,314	94.3%	80	5.7%		0.0%	1,394
Brooklyn	1,525	96.6%	53	3.4%		0.0%	1,578
Manhattan	2,067	95.3%	99	4.6%	2	0.1%	2,168
Queens	906	92.9%	69	7.1%		0.0%	975
Staten Island	149	96.1%	6	3.9%		0.0%	155
2021-05							
Bronx	1,123	94.1%	70	5.9%		0.0%	1,193
Brooklyn	1,400	97.2%	35	2.4%	5	0.3%	1,440
Manhattan	1,866	96.7%	61	3.2%	2	0.1%	1,929
Queens	753	95.7%	33	4.2%	1	0.1%	787
Staten Island	143	96.6%	4	2.7%	1	0.7%	148
Grand Total	34,517	94.8%	1,853	5.1%	27	0.1%	36,397

Importantly, answering “No” to the RRP enforcement question does not necessarily indicate non-compliance and, indeed, can be entirely appropriate in several circumstances. For instance, NYCHA has a growing volume of XRF data showing that apartments are either negative or have a limited number of lead components. Currently, over 44,000 apartments have tested negative and over 14,000 have two or fewer lead components. If a renovator is performing work in a negative apartment or working on components that do not contain lead-based paint, the renovator is correct to answer “No” to the RRP enforcement question. Additionally, for some work orders, the renovators are not performing work that disturbed paint above the de minimus thresholds, such as painting with no surface preparation or drilling small holes to install new cabinets on a wall. In these circumstances, renovators would also be correct to select “No.”

However, to ensure NYCHA renovators are following RRP protocols, the Compliance Department will increase its monitoring of work orders where renovators answer “No” to the RRP enforcement questions to ensure that the renovator’s answer was correct. The strategy will be fourfold.

First, as discussed in the “Field Monitoring/QA for 15(a),” Compliance will conduct surprise inspections of maintenance and skilled trade work orders to evaluate if they are following protocol regarding the RRP enforcement questions. Compliance will attempt to conduct two such inspections per months. Second, Compliance will conduct reviews of 50 work orders per month where renovator’s answered “No” to determine if the answer was accurate. Third, any issues identified in the field monitoring or the work order reviews will be raised with supervisor staff with recommendations for staff accountability if necessary. Fourth, Compliance will issue Compliance Advisory Alerts regarding the RRP work order enforcement questions and will ensure that the forthcoming RRP Refresher training required by the Initial Lead Action Plan has clear instructions on the RRP work order enforcement question protocols.

During the Covered Period, Compliance already began some of these activities. , Compliance conducted a review of 190 total work orders where the renovators answered “No” to the enforcement questions, including 40 from the new TEMPO Repair program, and identified 128 work orders that required further explanation from renovators. Compliance then conducted follow up interviews with 40 employees (34 skilled trades employees, 2 assistant superintendents and 4 maintenance workers) April 2021 to discern why they answered “No.” Compliance also requested information in writing from supervisory staff. While this work is still ongoing, key themes from the interviews are summarized below.

- **Incomplete Understanding of the RRP Procedures and Lead-Based Paint Information in the Handheld:** Many skilled trades and maintenance understand key aspects of their RRP training such as containment and cleaning protocols. However, many have less of an understanding of the “paperwork” aspects of RRP compliance such as the pre- and post-renovation checklist. Many also do not exhibit a comprehensive understanding of how to interpret information in the handheld, such as the XRF data.
- **Renovators Performing Work Are Not Always the Same People Who Answered the Enforcement Question:** Compliance identified eight work orders where the person answering the RRP enforcement question was different from the person performing the work. Sometimes these questions were answered by a supervisor. In some cases, the supervisor did not observe the actual work, but based the answer on conversations with the staff who performed the work. It is important for NYCHA to ensure that the individual answering the RRP enforcement question must have firsthand knowledge of the job and of the lead status of the apartment. The individual answer the RRP enforcement questions will be held accountable if the answer to the enforcement question is found to be inaccurate.
- **Staff Does Not Believe They Are Performing Work That Require RRP Protocols:** Some staff indicated that tasks requiring paint disturbing activities above the de minimus thresholds are actually less frequent than expected, and that the RRP enforcement questions are overapplied to activities that do not actually require RRP protocols. Staff seem to have a solid grasp on what work does and does not require RRP from their RRP training. Many staff seem to rely heavily on the de minimus threshold when explaining why they answered “No” to the enforcement question. While many of the staff observations appear accurate, supervisors must ensure that staff are not overapplying exclusions such as the de minimus exception.
- **Vigilance Against Intentional Use of “No” to Avoid Enforcement Protocols or Clearance:** While Compliance has not identified a specific instance where a renovator answered “No,” to avoid EHS oversight or clearance examinations, there is an understanding amongst some staff that answering “Yes” does result in EHS oversight and additional tasks, such as the checklists or clearance examinations. Similar to certain issues seen with MoldBuster work orders, it is imperative that Compliance continues to both monitor these work order and issue Compliance Advisory Alerts on the high importance of entering accurate information into Maximo.

[Overall Description of Compliance for 15\(a\):](#)

NYCHA has established a sophisticated work order system that can identify the lead status of the apartment and even components within the apartment. The system uses this information to prompt staff with RRP enforcement questions. The system was updated during the Covered Period to ensure that apartments that test positive in exempt buildings are automatically subject to the warning flags and enforcement measures upon testing positive.

While the work order system meets the requirements of the certification set forth in 15(a), additional training, supervision, and monitoring is needed to ensure that the system users (i.e., NYCHA staff) are properly following the required protocols. Compliance will continue to take steps to ensure that the system is used appropriately and hold staff accountable for deviations from the requirements.

Paragraph 15(b): Ensuring that only properly trained and certified firms and workers are assigned to perform work to which lead-safe work practices apply in accordance with 24 CFR §§ 35.1330, 35.1350 and 40 CFR §§ 745.85, 745.90.

Regulatory Requirements for 15(b):

NYCHA interprets this paragraph, and the regulations cited therein, as requiring that NYCHA have policies, procedures, controls, and practices to only permit RRP-certified staff or vendors to perform paint-disturbing work in lead paint Developments.

Written Policies, Procedures, and/or Contract Specifications for 15(b):

Regarding vendors, the Lead SP states as follows, “Property maintenance supervisors ensure vendor employees: (1) Are Certified Renovators. (2) Have their RRP certificates on file at the development. (3) Follow lead-safe work practices under federal and local law and regulations. (4) Provide the required notifications.” Lead SP, § XV.A.12.g. Developments using vendors must also provide the vendor with the “Lead Safe Practices Vendor notice.” Lead SP, § VII.I.2.c.2 and Appendix E.

Regarding NYCHA staff, the Lead SP states as follows: “Only Certified Renovators can perform Renovation, Repair, and Painting (RRP) work that requires RRP certification.” Lead SP, § VII.I.2. The Lead SP further states, “Supervisors are not permitted to assign work that requires a Certified Renovator to employees who are not Certified Renovators. If an employee who is not a Certified Renovator is assigned to complete a work order that has the ACTION REQUIRED message noted above, the employee must tell their immediate supervisor that they are not certified to complete the work order. In Assignment Manager and ESD Dispatching, the Labor List has a field to indicate which employees are Certified Renovators. The RRP certification information is imported from the Human Resources Database daily.” Lead SP, §§ VII.I.3.a.2.d. through VII.I.3.a.2.e.

IT Controls for 15(b):

NYCHA has IT controls that ensure that NYCHA assigns potential RRP work orders in lead paint Developments to RRP certified NYCHA staff. A document describing this IT control is annexed as Attachment J.

At present, Maximo does not identify the vendor or vendor staff assigned to perform RRP work at the lead paint Developments. NYCHA instead relies upon either Development staff or NYCHA paint supervisors to manually check the qualifications of the vendor and vendor staff at the development.

[Field Monitoring/QA for 15\(b\):](#)

A full description of field monitoring activities for RRP projects is set forth in the EHS Report, annexed as Attachment A. This section shall briefly summarize EHS's findings relevant to Paragraph 15(b).

Due to data duplication errors identified on the Data Warehouse RRP report, data on Certifications and Personnel is not included in this reporting period. However, one plastering job observed at Riis Houses was escalated to the Compliance Department due to the plasterer helper's inability to provide proof that he received the required RRP training and was a certified renovator. EH&S was also unable to obtain confirmation from NYCHA's Learning & Development Department. As described above, Compliance recommended staff accountability memoranda for the involved staff.

[File Review for 15\(b\):](#)

The Compliance Department randomly selected at least 50 work orders each month to verify if employees and staff were certified which resulted in a review of 426 work orders during the Covered Period. The Compliance Department compared data from closed RRP work orders on Maximo with training results from the Human Resources Department or requested vendor certificates from the development. Of the 426 work orders completed by NYCHA employees, 426 (100%) had RRP certified assigned to them.¹³

The Compliance Department also surveyed randomly selected developments and the Procurement Department to determine if the RRP vendors that NYCHA uses have their RRP certifications listed in the RRP Vendor Support Portal built by Compliance (see below). Compliance was able to identify 13 out of 14 (93%) randomly selected vendor certificates.

Compliance expanded its vendor RRP compliance portal that requires vendors performing RRP work to upload both their firm and worker certifications. NYCHA intends to use this portal to improve its oversight of vendor RRP compliance. To improve the portal, Compliance contacted 479 vendors that may perform RRP work. As of July 29, 2021, Compliance has received the following information:

- 200 vendors provided both their firm and work certifications;
- 30 vendors have only provided their firm certification;
- 27 vendors have only provided their worker certifications;
- 89 vendors have provided sufficient information that RRP certifications are not required for their scope of work;
- 77 vendors have responded, but have yet to provide documentation evidencing compliance;
- 56 vendors have not responded (of these, 56, 17 vendors appear on the EPA database of RRP certified firms).

NYCHA Compliance will continue to follow-up with vendors that have provide incomplete documentation, or no documentation, and will work with NYCHA Procurement on any steps needed to address firms that are non-compliance. While this control, as it is currently designed, is not nearly as robust as the controls for work orders performed by NYCHA staff, it has provided the basic ability to uniformly collect worker and vendor certifications in a centralized location.

¹³ Prior to March 2021, Compliance checked RRP certification for all workers identified on the work order actuals. After March 2021, Compliance limited the check to the certification of the renovator who completed the RRP checklist.

Overall Description of Compliance for 15(b):

During the Covered Period, NYCHA made demonstrable progress towards compliance with the requirement set forth in Paragraph 15(b) of the HUD Agreement. Evidence of progress towards compliance consists of:

- The existence of policies and procedures addressing the requirements of Paragraph 15(b);
- The existence of IT controls for work orders performed by NYCHA staff to ensure that only RRP certified workers can be assigned to RRP work orders;
- Strong evidence (100% compliance) from file review activities that these requirements are being followed for staff and good evidence (93% compliance) that these requirements are being followed for vendors.
- Existence of the RRP public web-based portal to track RRP certification for vendor companies and their employees.

Based on the documentation, NYCHA is showing significant progress on compliance with this paragraph but must still further strengthen its controls on vendors prior to certifying compliance.

Paragraph 15(c): Obtaining and Maintaining certification as a certified renovation firm if any of the workers described in this paragraph are NYCHA employees, and the work they do is covered by 40 CFR part 745, subpart E ... in accordance with 40 CFR §§ 745.81, 745.89.

Overall Description of Compliance for 15(c):

NYCHA is a certified RRP firm. Proof of the certification is annexed as Attachment K. Based on this documentation, there is evidence supporting that NYCHA is in substantial compliance with the requirements set forth in 15(c).

Paragraph 15(d): Ensuring supplies necessary to perform lead-safe work practices in accordance with 24 CFR § 35.1350 and 40 CFR § 785.85 are readily available to trained and certified workers.

Regulatory Requirements for 15(d):

NYCHA interprets this requirement as ensuring that its storerooms have sufficient supplies that can be used by NYCHA staff daily to fulfill the lead safe work practice requirements.

Written Policies, Procedures, and/or Contract Specifications for 15(d):

The Lead SP sets forth the mandatory materials that must be included in the standard RRP kit and available at the developments. See Lead SP, § VII.I.9.

Starting in April 2019, four developments per week had their storerooms inventory converted over from development control to Materials Management Department (“MMD”) control. As of December 2020, two separate NYCHA SPs govern storeroom management procedures: (1) NYCHA SP 006:19:1, Operations of Development Storerooms – MMD Locations, for locations under MMD control, and (2) NYCHA SP 040:04:2, Operation of Development Storerooms, for locations under development control.

For storerooms under MMD control, MMD monitors and distributes all maintenance work related materials out of the storeroom, including RRP required supplies. MMD implemented an initiative on April 1, 2019 to improve RRP storeroom supplies management at developments by establishing a visible model display of each item that is required to conduct RRP work. The Storeroom Caretaker at each development is responsible for RRP item monitoring, and reports to MMD supervisor any issues or items that need replenishment. Frequently used inventory item levels such as RRP supplies are monitored every 30 days.

MMD's Long Island City warehouse makes weekly deliveries of RRP supplies to each development, and services approximately 40 developments per day. Some items that MMD does not have in stock may be ordered and delivered directly from a vendor.

It should be noted that, as of March 18, 2020, MMD temporarily returned 19 development storerooms back to development management due to pandemic related staff shortages. As of May 28, 2021, MMD controls all but 14 of NYCHA's storerooms. Of those 14, 9 developments (71%) are among the developments that have lead-based paint in apartments. The MMD Director does not have an approximate start date for MMD to begin managing these storerooms.

[IT Controls for 15\(d\):](#)

There are currently no IT controls for the requirements set forth in 15(d).

[Field Monitoring/QA for 15\(d\):](#)

A full description of field monitoring activities for RRP projects is set forth in the EHS Report, annexed as Attachment A. This section shall briefly summarize EHS's findings relevant to Paragraph 15(d).

- Out of the 117 storerooms inspected for required RRP supplies, 105 were in compliance (89.7%%). Non-compliance indicates that 1 or more supplies was missing from the storeroom. Some storerooms were visited more than once because the EHS LOT was conducting a field inspection of scheduled RRP work.
- The most common missing supplies were Tyvek suits and the RRP supply kit.
- The 12 storerooms that failed were re-inspected and passed, therefore escalation to the Compliance Department was not required.
- Of the 105 Lead Disclosure Inspections, 10 failed during the initial inspection, however the Neighborhood Administrators and Property Management staff were notified and provided with guidance regarding NYCHA's Lead Disclosure recordkeeping requirements. These management offices were later re-visited and nine (9) passed re-inspections.

[File Review for 15\(d\):](#)

The Compliance Department did not conduct any file review to evaluate compliance with paragraph 15(d).

[Overall Description of Compliance for 15\(d\):](#)

During the Covered Period, NYCHA made demonstrable progress towards compliance with the requirement set forth in Paragraph 15(d) of the HUD Agreement. Evidence of progress towards compliance consists of:

- The existence of policies and procedures addressing the requirements set forth in 15(d);

- Field monitoring data showing an overall rate of 89.7% compliance;
- Creation of new centralized inventory management for most developments.

Based on this documentation, there is evidence supporting that NYCHA is in substantial compliance with the requirements set forth in 15(d).

Paragraph 15(e): Ensuring that firms and workers assigned to perform the renovation or maintenance work to which lead safe work practices apply use the RRP Renovation Checklist and establish and maintain records necessary to demonstrate compliance with the RRP Rule in accordance with 40 CFR § 745.86.

Regulatory Requirements for 15(e):

The relevant portion of 40 CFR § 745.86 states as follows:

“Documentation of compliance with the requirements of § 745.85, including documentation that a certified renovator was assigned to the project, that the certified renovator provided on-the-job training for workers used on the project, that the certified renovator performed or directed workers who performed all of the tasks described in § 745.85(a), and that the certified renovator performed the post-renovation cleaning verification described in § 745.85(b). If the renovation firm was unable to comply with all of the requirements of this rule due to an emergency as defined in § 745.82, the firm must document the nature of the emergency and the provisions of the rule that were not followed. This documentation must include a copy of the certified renovator's training certificate, and a certification by the certified renovator assigned to the project that:

- (i) Training was provided to workers (topics must be identified for each worker).
- (ii) Warning signs were posted at the entrances to the work area.
- (iii) If test kits were used, that the specified brand of kits was used at the specified locations and that the results were as specified.
- (iv) The work area was contained by:
 - (A) Removing or covering all objects in the work area (interiors).
 - (B) Closing and covering all HVAC ducts in the work area (interiors).
 - (C) Closing all windows in the work area (interiors) or closing all windows in and within 20 feet of the work area (exteriors).
 - (D) Closing and sealing all doors in the work area (interiors) or closing and sealing all doors in and within 20 feet of the work area (exteriors).
 - (E) Covering doors in the work area that were being used to allow passage but prevent spread of dust.
 - (F) Covering the floor surface, including installed carpet, with taped-down plastic sheeting or other impermeable material in the work area 6 feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to contain the dust, whichever is greater (interiors) or covering the ground with plastic

sheeting or other disposable impermeable material anchored to the building extending 10 feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to collect falling paint debris, whichever is greater, unless the property line prevents 10 feet of such ground covering, weighted down by heavy objects (exteriors).

- (G) Installing (if necessary) vertical containment to prevent migration of dust and debris to adjacent property (exteriors).
- (v) If paint chip samples were collected, that the samples were collected at the specified locations, that the specified NLLAP-recognized laboratory analyzed the samples, and that the results were as specified.
- (vi) Waste was contained on-site and while being transported off-site.
- (vii) The work area was properly cleaned after the renovation by:
 - (A) Picking up all chips and debris, misting protective sheeting, folding it dirty side inward, and taping it for removal.
 - (B) Cleaning the work area surfaces and objects using a HEPA vacuum and/or wet cloths or mops (interiors).
- (viii) The certified renovator performed the post-renovation cleaning verification (the results of which must be briefly described, including the number of wet and dry cloths used).

[Written Policies, Procedures, and/or Contract Specifications for 15\(e\):](#)

The Lead SP sets forth the required procedures for lead safe work practices, and for completing the required renovator's checklist. Lead SP, §§ VII.I.1. through VII.I.14. The template Renovator's Checklists (for vendors and staff) are also available on the Forms and Reference Library.

In November 2019, NYCHA created digital versions of the post renovator checklists for use in the handheld and desktop versions of Maximo. Screenshots of the digitized checklists are located in Attachment H, Slides 11 and 12. NYCHA received comments from HUD on the checklist items used for these digitized checklists. This enhancement is further discussed in the IT Controls for 15(e) section below.

[IT Controls for 15\(e\):](#)

As of November 2019, the pre-acknowledgment form and renovator's checklist were digitized and added into the Maximo work ticket. RRP work orders cannot be closed without completing these forms with required signatures and user-provided information about the renovation. Since vendors do not have handhelds, this control does not apply to their work.

[Field Monitoring/QA for 15\(e\):](#)

A full description of field monitoring activities for RRP projects is set forth in the EHS Report, annexed as Attachment A. With respect to overall compliance with RRP work practices, EHS made the following overall observations:

- The LOT observed 309 RRP jobs in this period which is almost twice what it observed (168) in the August to December 2020 reporting period.
- Among all the RRP work phases the “Worksite Preparation” phase achieved 99.6% compliance rates. 283 “Worksite Preparations” activities were observed.
- 285 “Work Activities” were observed, with a 99.6% compliance rate.
- 79 “Cleanup Activities” were observed, with a 98.7% compliance rate.
- 97 “Cleanup Verification Activities” were observed, with a 100% compliance rate.
- EHS continues to experience difficulties in identifying RRP vendor jobs. It appears that these jobs are not being properly scheduled and documented in Maximo.

[File Review for 15\(e\):](#)

The Compliance Department assessed 430 work orders (completed between December 16, 2020 and June 15, 2021) for the required attachments and confirmed whether the employees were certified RRP renovators. 96% (412 out of 430) of the work orders had the RRP Renovation Checklist. A spreadsheet documenting this file review is annexed as Attachment L. The digitized checklists apply to work orders created starting in November 2019. The Compliance Department saw nearly consistent performance during the reporting period as illustrated below. The 14 work orders in March that did not have the renovators’ checklist were created before November 2019. When 13 of these work orders were closed sometime in March 2021, the Brooklyn paint supervisor wrote “RRP not applicable” in the notes section of the checklist on Maximo. The questions on the actual checklist are left blank. For one of the work orders, a plasterer indicated that it was a duplicate in the notes section.

RRP Checklists December 16, 2020 to June 15, 2021

	December	January	February	March	April	May	June
RRP Checklists Present	20	94	84	73	68	51	23
RRP Checklists Missing	0	0	0	14	3	0	0
Total Work Orders Reviewed	20	94	84	87	71	51	23
Compliance Rate	100%	100%	100%	84%	96%	100%	100%

In some cases, MU observed that the skilled tradesperson did not confirm that they contained waste on-site or contained waste while it was transported off-site. When Compliance identifies these issues, the skilled tradesperson is given an opportunity to explain the reason for not following RRP procedures and Compliance informs them on how to properly complete the requirements in the future. Skilled trade supervisors typically responded to the inquiry stating that the skilled tradesperson forgot to check the box. Supervisors also reported that the trades staff sometimes found the instructions about the checklist confusing or the skilled tradesperson knew how to complete the checklist, but their handheld was reportedly not functioning properly.

[Overall Description of Compliance for 15\(e\):](#)

During the Covered Period, NYCHA made demonstrable progress towards compliance with the requirement set forth in Paragraph 15(e) of the HUD Agreement. Evidence of progress towards compliance consists of:

- The existence of policies and procedures addressing the requirements set forth in 15(e);
- Successful application of IT controls that require workers to complete the Renovator's Checklist before they can close the RRP work order;
- Field monitoring data providing an average rate of compliance of 99% across all 4 work phases;
- File review showing a slight downward trend of compliance to 96% (compared to 99% in last certification) for completion of the renovator's checklist.

The RRP Vendor Portal is operational and can be used to verify a vendor firm's RRP certificate as well as that firm's individual employee RRP certificates. However, Compliance is not aware of a systemic process for collecting RRP checklists from vendors and recording that information in Maximo or other centralized location.

Overall, the Compliance Department recommends not certifying to this requirement until field monitoring shows a period of consistent compliance for vendors and NYCHA strengthens policies on vendor record-keeping.

Paragraph 15(f): Ensuring that residents of units and developments in which renovation or maintenance work to which lead-safe work practices apply will be performed are informed of the work to be performed and the risks involved in accordance with 24 CFR § 35.1345 and 40 CFR §§ 745.84, 745.85.

Regulatory Requirements for 15(f):

The regulations cited in paragraph 15(f) require NYCHA to distribute the U.S. Environmental Protection Agency ("EPA") Renovate Right Pamphlet, and to obtain acknowledgment from an adult occupant of the unit.

Written Policies, Procedures, and/or Contract Specifications for 15(f):

The Lead SP sets forth the required procedure for distributing the required pre-renovation materials and obtaining the acknowledgment form from the resident. See Lead SP, § VII.I.5.

IT Controls for 15(f):

As of November 1, 2019, the pre-renovation acknowledgment form and renovator's checklist were digitized and added into the Maximo work ticket. A screenshot of the pre-renovation checklist as it appears in Maximo is located in Attachment H, Slide 8. RRP work orders cannot be closed without completing these forms with required signatures and user-provided information about the renovation. Since vendors do not have handhelds, this control does not apply to their work.

Field Monitoring/QA for 15(f):

A full description of field monitoring activities for RRP projects is set forth in the EHS Report, annexed as Attachment A. EHS made the following observations about the Lead Safe Certified Guide to Renovate Right:

- The Renovate Right Guide was not added to the LOT inspections until February 26th, 2021;
- To assess compliance with this requirement, LOT asked residents if they had received this guide for 222 work orders. All residents confirmed they were in receipt of the information, resulting in a 100% compliance rate.

[File Review for 15\(f\):](#)

The MU assessed 430 work orders (completed between December 16, 2020 and June 15, 2021) for the required attachments and confirmed if the pre-renovation acknowledgement form was offered to the resident. 93% (401 out of 430) of the work orders indicated the pre-renovation acknowledgment form was offered to the resident. In 1 instance, the work order had a comment that it was a move-out. See the table below for details regarding completion of the renovator’s checklist:

Renovator Checklists December 16, 2020 to June 15, 2021

	December	January	February	March	April	May	June
Acknowledge Form Present	20	89	78	72	68	51	23
Acknowledgment Form Missing	0	5	6	15	3	0	0
Total Work Orders Reviewed	20	94	84	87	71	51	23
Compliance Rate	100%	95%	93%	83%	96%	100%	100%

The count of renovation checklists in the above-table includes incomplete RRP checklists. The Compliance Department contacted skilled trade supervisors regarding missing or incomplete pre-renovation acknowledgements and renovator checklists to notify them of the errors.

There was a decline in compliance in March 2021; this was because Compliance selected work orders created before 2019 for its review, and certain IT controls do not apply to this vintage of work order.

[Overall Description of Compliance for 15\(f\):](#)

During the Covered Period, NYCHA made demonstrable progress towards compliance with the requirement set forth in Paragraph 15(f) of the HUD Agreement. Evidence of progress towards compliance consists of:

- The existence of policies and procedures addressing the requirements set forth in 15(f);

- Successful application of IT controls that require workers to complete the pre-renovation acknowledgment form before they can close an RRP work order;
- 100% of residents confirmed they had received the Renovate Right Guide;
- File review showing an average rate of compliance of 93%.

Despite this progress, NYCHA is still developing a more cohesive policy on monitoring vendor performance and ensuring that residents receive the pre-acknowledgment forms when vendors complete work in their apartments.

Overall, the Compliance Department recommends not certifying to this requirement until field monitoring shows a period of consistent compliance for vendors and NYCHA strengthens policies on vendor record-keeping.

Paragraph 15(g): Retaining records demonstrating compliance with the regulations set forth at 24 CFR § 35.125 and 40 CFR § 745.84.

Regulatory Requirements for 15(g):

Paragraph 15(g) requires compliance with 24 CFR § 35.125, which, among other things, sets forth the requirements for issuing notices of evaluation (“NOE”) following lead testing, inspections, and risk assessments, and notices of hazard reduction (“NOHR”), which must occur upon the completion or abatement or interim controls. 40 CFR § 745.84 sets forth the work notification requirements for RRP projects in residences and common areas. Compliance with section 40 CFR § 745.84 is also referenced in Paragraph 15(f) and this section shall focus on compliance with 24 CFR § 35.125.

Written Policies, Procedures, and/or Contract Specifications for 15(g):

Policies and Procedures: The Lead SP contains policies and procedures on the NOE and the NOHR. See Lead SP, § VII.D.1.c. (NOE following XRF inspection); Lead SP, § VII.D.1.d. (NOE for biennial re-evaluations); see also NYCHA Form 060.851, Notice of Evaluation. For policies and procedures for the NOHR, see Lead SP, § VII.D.2.b.1. (NOHR following hazard reduction activities performed in an apartment); Lead SP, § VII.D.2.b.2. (NOHR following hazard reduction activities performed in a common area or exterior); see also NYCHA Form 060.852, Notice of Hazard Reduction Activity.

Contract Specifications: The contract specifications for the NYCHA XRF initiative require vendors performing the XRF testing to perform the following:

- (a) Each dwelling unit that is found to contain lead-based paint is to receive a “Notice.”
- (b) The Notice shall be in a single page format that is approved by NYCHA.
- (c) The Notice is to be received by the resident within 15 calendar days of knowledge that lead-based paint is present.
- (d) Notices are to be mailed directly to the Resident’s address.

IT Controls for 15(g):

IT has developed a system to automate the sending of NOHR through Siebel. This automated process generates a hard copy NOHR after a passing clearance examination. The letter is then mailed to the

resident. An electronic version of the letter (in 4 languages) is also stored in the resident's MyNYCHA App file. The process auto-generates letters for "non-exception cases," meaning that all necessary criteria for the work order match in Maximo and no manual review is necessary to resolve discrepancies.¹⁴ If a case does not meet this criteria, the process auto-generates a list of "exception" cases, which LHC must review, resolve discrepancies, and if necessary, manually generate the NOHR.¹⁵

On January 11, 2021, IT and the General Services Department reported that the presence of the NOHR in Siebel reliably demonstrates that the letter was physically printed and mailed out to the resident within 1-2 business days of its creation and submission into Siebel.

[Field Monitoring/QA for 15\(g\):](#)

No field monitoring for the paragraph.

[File Review for 15\(g\):](#)

Notices of Evaluation:

The Compliance Department ran a report of XRF inspection work orders in Maximo completed between December 16, 2020 and June 15, 2021. Of 8,269 completed XRF inspections, 8,268 work orders (99.9%) contained the required NOE in Maximo.

Notices of Hazard Reduction – Non-Exception Cases:

From December 16, 2020 through June 15, 2021, a total of 1,822 "Non-Exception" cases (the NOHR were generated through the automated system) were identified from the IT data pull. The MU selected a sample of 75 of these cases and found that all 75 (100%) of these cases contained a copy of the NOHR attached in Siebel.

Notices of Hazard Reduction – Exception Cases:

For "Exception" cases (the NOHR were manually generated by LHC), the Compliance Department obtained a list of RRP work orders that were closed and passed dust wipe clearance between December 16, 2020 and June 15, 2021. The list contained 1,107 exception work orders, and the Compliance Department randomly selected a sample of 39 work orders for review (4%).

The Compliance Department requested evidence of email delivery from LHC to the developments with the NOHR attached in the email to the development. Upon review, the Compliance Department found

¹⁴ **Non-Exception (auto) NOHR:** Hazard Reduction Notice that is automatically generated by Siebel and mailed out by the GSD, if any 1 of the following categories is satisfied:

- Dust wipes taken matched exactly to the dust wipes that were planned
- Dust wipes planned at apartment level but were taken at the room level
- Dust wipes taken were more than dust wipes planned but contained all dust wipes that were planned

¹⁵ **Exception (manual) NOHR:** Hazard Reduction Notice that is manually generated by the LHC Dust Wipe Unit and mailed out, if any 1 of the following categories is satisfied, indicating further investigation is needed:

- Dust wipes taken were less than dust wipes planned
- Dust wipes taken were more than dust wipes planned but did not include all dust wipes planned

that all 39 work orders sampled (100%) had the respective emails and NOHR uploaded in Maximo. This is an improvement from the January 31, 2021 certification when only 34 of 39 (87%) work orders had respective emails and NOHR uploaded in Maximo.

The delay between the clearance inspection date and the date of notice on the NOHR for “exception” cases appears to be an issue. The review in Maximo revealed that for 10 of the 39 (26%) emails with the NOHR attached sent from LHC to development staff, LHC did not send the email until 4 months after the clearance inspection date. 11 of the 39 emails (28%) indicated that LHC did not send the email and respective NOHR to the development staff until 5-6 months after the clearance inspection. The 21 total emails and NOHR LHC sent to the development after 4-6 months were actually emailed to the development after the Compliance Department requested the data from LHC.

The Compliance Department finds LHC had the notices for all 39 work orders sampled but did not distribute within the 15-day regulatory deadline for any of the 39 work orders. LHC is aware of these findings and is working to make improvements in the future.

Overall Description of Compliance for 15(g):

NYCHA launched the automated IT process for generating the NOHR through Siebel on November 18, 2020. Prior to the go-live date, in June and July 2020, NYCHA IT performed testing to validate the accuracy of the automated notices. For the Covered Period, the Compliance review of the sample selection of 75 non-exception work orders exhibited a positive result for 100% of the notices.

While NYCHA has established practices in place for the NOE, NYCHA cannot certify to the requirements set forth in 15(g) until it improves its overall compliance with the NOHR process.

In addition, there is still not a process for notifying residents in writing following a failed dust wipe clearance. Instead, upon a failed clearance, residents are notified by telephone or email about the need for the development to reschedule a re-cleaning of the work area and a second clearance examination. Now that an automated system is in place for NOHR, NYCHA needs to work on a method to auto-generate written notice to the resident following a failed clearance examination.

Compliance, IT and LHC will continue to work together to improve the processes for the exception (manual) cases and failed dust wipe clearances.

Paragraph 15(h): Containing or causing to be contained any work area to which lead safe work practices will apply by isolating the work area and waste generated so that no dust or debris leaves the work area in accordance with 24 CFR § 35.1345 and 40 CFR § 745.85(a).

Regulatory Requirements for 15(h):

24 CFR § 35.1345(b)(1) states as follows: “The worksite shall be prepared to prevent the release of lead dust, and contain lead-based paint chips and other debris from hazard reduction activities within the worksite until they can be safely removed. Practices that minimize the spread of lead dust, paint chips, soil and debris shall be used during worksite preparation.”

40 CFR § 745.85(a)(2) states as follows: “Containing the work area. Before beginning the renovation, the firm must isolate the work area so that no dust or debris leaves the work area while the renovation is

being performed. In addition, the firm must maintain the integrity of the containment by ensuring that any plastic or other impermeable materials are not torn or displaced, and taking any other steps necessary to ensure that no dust or debris leaves the work area while the renovation is being performed. The firm must also ensure that containment is installed in such a manner that it does not interfere with occupant and worker egress in an emergency.”

[Written Policies, Procedures, and/or Contract Specifications for 15\(h\):](#)

The Lead SP sets forth the containment and worksite isolation requirements. See Lead SP, §§ VII.I.10. through VII.I.12.

[IT Controls for 15\(h\):](#)

The RRP Containment requirements referenced in this paragraph are addressed in the renovator’s checklist. As of November 1, 2019, the pre-acknowledgment form and renovator’s checklist were digitized and added into the Maximo work ticket. RRP work orders cannot be closed without completing these forms with required signatures and user-provided information about the renovation. Since vendors do not have handhelds, this control does not apply to their work.

[Field Monitoring/QA for 15\(h\):](#)

A full description of field monitoring activities for RRP projects is set forth in the EHS Report, annexed as Attachment A. With respect to overall compliance with RRP work practices, EHS made the following overall observations:

- Out of 283 EHS observations of worksite preparation activities, 99.6% were found to be in compliance.

[File Review for 15\(h\):](#)

The results of the file review are discussed in the Description of Compliance with paragraph 15(e), which identifies the work orders where the RRP checklist was completed.

[Overall Description of Compliance for 15\(h\):](#)

During the Covered Period, NYCHA made demonstrable progress towards compliance with the requirement set forth in Paragraph 15(h) of the HUD Agreement. Evidence of progress towards compliance consists of:

- The existence of policies and procedures addressing the requirements set forth in 15(h);
- Successful application of IT controls that require workers to complete the Renovator’s Checklist before they can close the RRP work order;
- Field monitoring data providing average compliance rates of 99.6% for worksite preparation activities and 99.6% for work activities;
- File review showing a trend of compliance to 93% for completion of the renovator’s checklist.

Despite this progress, NYCHA still needs to develop a more cohesive policy monitoring vendor work and collecting required RRP documentation from vendors. EHS reported that it continues to experience

difficulties in identifying RRP vendor jobs. It appears that these jobs are not being properly scheduled and documented in Maximo.

Overall, the Compliance Department recommends not certifying to this requirement until NYCHA strengthens policies on vendor record-keeping and monitoring.

Paragraph 15(i): Containing, collecting, and transporting waste from the renovation in accordance with 40 CFR § 745.85(a)(4).

Regulatory Requirements for 15(i):

40 CFR § 745.85(a)(4) states as follows: “(i) Waste from renovation activities must be contained to prevent releases of dust and debris before the waste is removed from the work area for storage or disposal. If a chute is used to remove waste from the work area, it must be covered. (ii) At the conclusion of each work day and at the conclusion of the renovation, waste that has been collected from renovation activities must be stored under containment, in an enclosure, or behind a barrier that prevents release of dust and debris out of the work area and prevents access to dust and debris. (iii) When the firm transports waste from renovation activities, the firm must contain the waste to prevent release of dust and debris.”

Written Policies, Procedures, and/or Contract Specifications for 15(i):

The Lead SP sets forth the protocols for managing waste for RRP projects. See Lead SP, §§ VII.G.1.j.7. and VII.I.12.

IT Controls for 15(i):

The waste control requirements referenced in this paragraph are included in the renovator’s checklist. As of November 1, 2019, the renovator’s checklist was digitized and added into the Maximo work ticket. RRP work orders cannot be closed without completing this form with required signatures and user-provided information about the renovation. Since vendors do not have handhelds, this control does not apply to their work.

Field Monitoring/QA for 15(i):

A full description of field monitoring activities for RRP projects is set forth in the EHS Report, annexed as Attachment A. With respect to overall compliance with RRP work practices, EHS made the following overall observations:

- EHS conducted 79 Cleanup work phase observations, overall compliance rate of 98.7%.
- Of the 309 RRP jobs 2 failed due to observed work practice violations. EHS escalated these jobs to the Compliance Department. The Compliance Department investigated these issues and Operations issued counseling memos per Compliance’s recommendation.

File Review for 15(i):

The results of the file review are discussed in the Description of Compliance with paragraph 15(e), which indicates which work orders had the RRP checklist.

Overall Description of Compliance for 15(i):

During the Covered Period, NYCHA made demonstrable progress towards compliance with the requirement set forth in Paragraph 15(i) of the HUD Agreement. Evidence of progress towards compliance consists of:

- The existence of policies and procedures addressing the requirements set forth in 15(i);
- Application of IT controls that require workers to complete the Renovator's Checklist before they can close the RRP work order;
- Field monitoring data providing an average compliance rate of 98.7% for cleanup activities;
- File review showing a trend of compliance to 93% for completion of the renovator's checklist.

Despite this progress, NYCHA still needs to develop a more cohesive policy monitoring vendor work and collecting required RRP documentation from vendors. EHS did not observe any vendors during its field monitoring.

Overall, the Compliance Department recommends not certifying to this requirement until NYCHA strengthens policies on vendor record-keeping and monitoring.

Paragraph 15(j): Performing cleanup of any work area to which lead safe work practices apply until no debris or residue remains in accordance with 24 CFR § 35.1345, 35.1335 and 40 CFR § 745.85(a) and (b), and conducting and passing a clearance examination in accordance with 24 CFR § 35.1340 (including any follow-up as required by that section's subsection (e) after clearance failure(s)), as provided by 40 CFR § 745.85(c).

[Regulatory Requirements for 15\(j\):](#)

The above regulations set forth the mandated cleaning requirements and clearance examination requirements. Due to the number the number and length of these requirements, they are not reproduced in this section.

[Written Policies, Procedures, and/or Contract Specifications for 15\(j\):](#)

Policies and Procedures: The Lead SP sets forth the protocol for cleaning, cleaning verification, and clearance examinations. See Lead SP, §§ VII.G.1.k., VII.H.1. through VII.H.10, VII.I.6., and VII.I.12. During the Covered Period, NYCHA integrated 2 significant new protocols into its clearance examination process. First, NYCHA now requires certified renovators to perform the EPA cleaning verification after final cleaning. Second, before cleaning activities begin, NYCHA requires the renovator to call into a newly established centralized dispatcher to request a dust wipe technician to be routed to the worksite. The purpose of this new dispatcher function is to improve communications between field staff and LHC.

[IT Controls for 15\(j\):](#)

With respect to clearance examinations, the creation of an RRP or visual assessment (interim control) work order automatically generates a work order for a clearance examination.

In addition, the requirements referenced in this paragraph are included in the RRP checklist. As of November 1, 2019, the RRP checklist was digitized and added into the Maximo work ticket. RRP work orders cannot be closed without completing this form with required signatures and user-provided information about the renovation. Since vendors do not have handhelds, this control does not apply to their work.

[Field Monitoring/QA for 15\(j\):](#)

A full description of field monitoring activities for RRP projects is set forth in the EHS Report, annexed as Attachment A. With respect to cleaning activities, EHS makes the following overall observations:

- Of the 322 dust wipe sample collection jobs observed, 32 were for RRP clearance and 290 were for lead abatement clearance.
- EHS has found it challenging to observe RRP clearance examinations since NYCHA Dust Wipe Technicians do not adhere to a strict schedule.

EHS reviewed 322 clearance examinations, covering both abatement and RRP projects. EHS noted that all clearance examiners had proper credentials for their job type; that all jobs adhered to the 1-hour wait time between clearance and cleaning activities; and that all clearance examiners conducted the visual inspection phase of the clearance examination; and that the clearance examiners adhered to dust wipe sample collection protocols 99.7% of the time. See Attachment A.

Deficiencies/violations were observed on one RRP clearance exam and was escalated to the Compliance Department for further action. Operations followed Compliance's recommendation to issue a counseling memo for this case.

[File Review for 15\(j\):](#)

Compliance, NYCHA IT, and Lead have developed a series of dashboards and reports to evaluate overall compliance with clearance examination requirements for interim controls and other RRP work orders. This section shall provide an overview of these dashboards and the trends that they are currently showing for the reporting period. It should be noted that NYCHA still needs to perform additional validation of the data from the dashboards, however, the below tables represent the best available information at this time. Compliance examines the following indicators to better understand the current compliance rate for clearance examinations:

- **Timing of Initial Clearance Examination:** Compliance evaluates whether NYCHA is performing or attempting to perform the clearance examination within 24 hours, 48 hours, or after 48 hours of final labor transaction on the Corrective Maintenance work order. Compliance also assesses whether the clearance was performed before the end of each weekly reporting cycle.
- **Pass/Fail/Pending Status of Dust Wipe Batches:** Compliance examines the trends exhibited each month for the number of dust wipe batches that (i) have passed (ii) have passed after the initial dust wipe failed; (iii) remain in fail status; (iv) have failed based on a visual clearance; and (v) have results pending at the laboratory. Compliance also evaluates the levels of failed dust wipe samples to distinguish between minor exceedance to more significant exceedances.
- **Re-Cleaning and Re-Clearance:** Compliance examines the timing of recleaning following a failed clearance examination. The CCO is copied on correspondence from LHC to the individual developments when the development does not respond to LHC's request for a recleaning following a clearance failure.

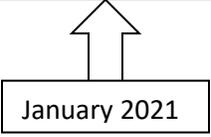
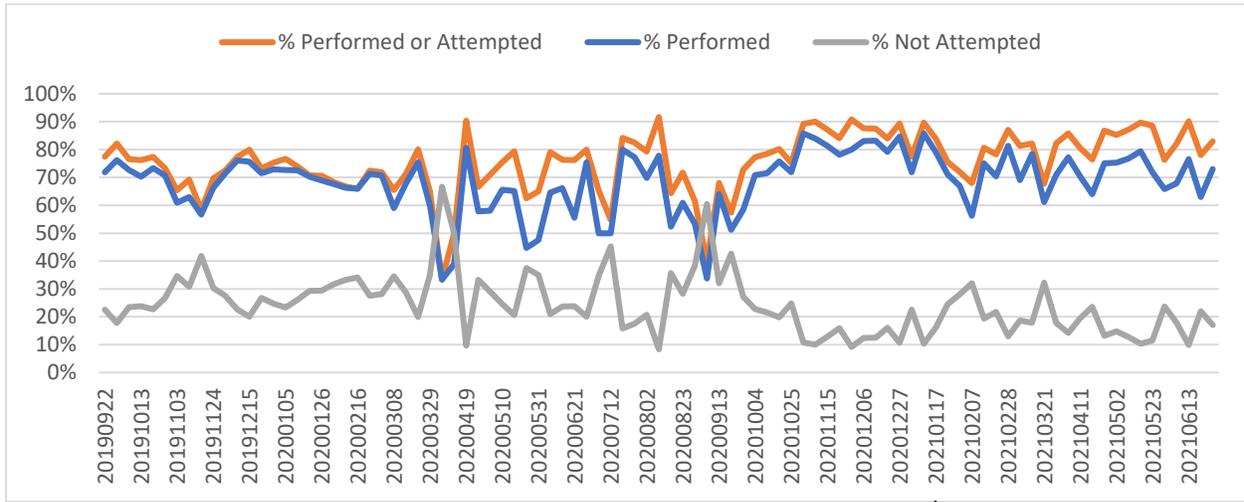
- **Skilled Trade and Development Staff Performance on RRP Cleaning:** Compliance examines which trades/staff are associated with dust wipe failures and evaluates whether particular trades or employees require re-training on RRP protocols. These proactive efforts began in 2021.

Timing of Initial Clearance Examinations and Overall Performance

Month	Total # of CM Work Orders	Total # of DW Performed Within Reporting Week	Dust Wipes Performed in 24 Hours	Dust Wipes Performed in 48 Hours	Dust Wipe Batch Currently in Passed Status	DW Attempts in 48 Hours for Dust Wipe Not Performed
January	1046	810	735	33	799	3
February	581	416	343	28	434	2
March	961	676	569	31	693	9
April	464	321	228	28	330	3
May	361	268	172	41	239	2
June	402	271	177	40	257	2
Total	3815	2762	2224	201	2752	21

Analysis: From January 1-June 30, 2021, NYCHA completed the 2762 of 3815 (72.4%) of clearance examinations within the weekly reporting cycle used to examine clearance examinations. NYCHA completed 2224 of 2762 (80.5%) of these clearance examinations within 24 hours of the last labor transaction on the Corrective Maintenance work order. NYCHA completed 2,425 of 2,762 (87.8%) of these clearance examinations in 48 hours of the last labor transaction on the Corrective Maintenance work order. NYCHA maintained similar performance times from the previous reporting period.

Trends from 9/22/2019 to 6/13/2021 (showing performed or attempted by end of the weekly reporting cycle)



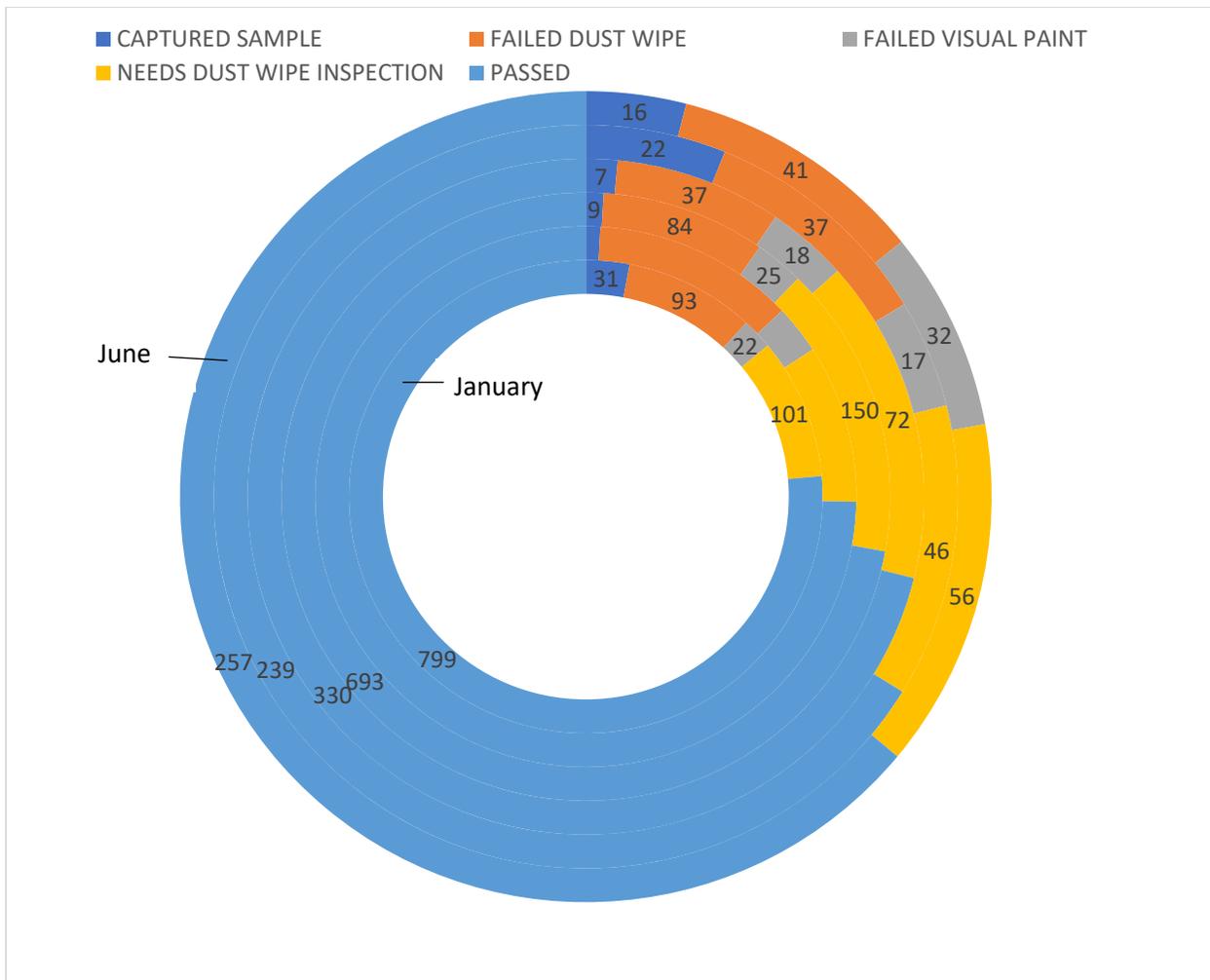
Analysis: NYCHA had more ups and downs during this performance cycle. After reaching a low of 67% of performed or attempted projects in early February 2021, LHC performance rebounded in late February into early March, both in terms of samples collected and attempted.

LHC attributes the volatility to (a) supervisory staff on the dust wipe team being out of the office and (b) an influx of CU6 work orders from Management & Planning that were miss-identified as abatement work orders. LHC has since been able to both add additional staff and to make plans to better deal with any potential supervisory staff shortages in the future.

Passed/Failed/Pending/Unperformed Statuses at the End of the Sixth Month Reporting Cycle:

Compliance conducted a review of the current status of all clearance examinations from January through August 3, 2021. This analysis shows whether the clearance examination passed, remains in a failed status (and requires re-clearance), is still pending with the laboratory, or remains unperformed at this time. Note, the below visualization does not include the “fail history,” i.e., clearance examinations that initially failed but were re-tested and have now passed. Those clearance examinations are included in the “passed category.”

Each ring represents a calendar month, with January 2021 as the inner most ring and June 2021 as the outer most ring. The term “capture sample” means that the sample has been collected and is likely pending with the laboratory.



	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	TOTAL
CAPTURED SAMPLE	31	5	9	7	22	16	90
FAILED DUST WIPE	93	70	84	37	37	41	362
FAILED VISUAL PAINT	22	17	25	18	17	32	131
NEEDS DUST WIPE INSPECTION	101	55	150	72	46	56	480
PASSED	799	434	693	330	239	257	2752
Grand Total	1046	581	961	464	361	402	3815

Analysis (as of July 7, 2021):

- 72.1% of the clearance examinations performed over the reporting period are in “pass” status (vs. 69.1% in prior period);
- 12.6% have not had clearance examinations yet (vs. 15.2% in prior period);

- 7.6% have been collected and are pending lab analysis (vs. 8.4% in prior period);
- 9.4% remain in fail status (vs. 5.2% in prior period); and
- 3.4% failed the visual phase of the clearance examination (vs. 2.1% in prior period).

While NYCHA continues to make efforts to improve its daily clearance performance, there are still some compliance shortfalls that NYCHA needs to address, as 27.9% of projects either need clearance exams or have clearance exams not in passed status.

First, the number that are in fail status at the end of the reporting period is over 9%. Many of these failed samples are several months old. This shows that NYCHA still has work to do in improving the re-cleaning and re-clearance process. While Compliance and LHC did build dashboards and trackers to monitor development responsiveness on re-cleaning needs, some lead clearance projects remain in fail status for months.

Second, the number of samples that have been collected but not received results from the laboratory is too high, especially for January and February. It is possible that some of these pending samples relate to recent re-clearance examinations after a failure, as this table shows the current statuses. However, LHC still needs to establish more reliable, standard turnaround times with laboratories and dust wipe vendors.

Third, the number of unperformed clearance examination decreased by over 2% since the prior reporting period, but it remains over 12% for the current period, which is still too high. It should be noted that this table does not account for attempts, which is critical to evaluate NYCHA’s efforts. It should also be noted that there have been continuing internal discussions on whether the clearance dashboards may overreport the number of unperformed samples. If the issue relates to access to perform the sample, Compliance recommends that LHC develop a customized communication to resident’s that do not allow access for dust wipe examinations so the residents can understand the importance of the examination. Additionally, NYCHA should explore developing right of entry policies for lead clearance once the pandemic subsides.

Lead Dust Levels of Individual Failed Samples by Surface Area

The current New York City and federal dust wipe thresholds are different for window sills and window wells. NYCHA applies the New York City standards because they are more stringent than the federal standards. The below chart shows the difference between the two standards:

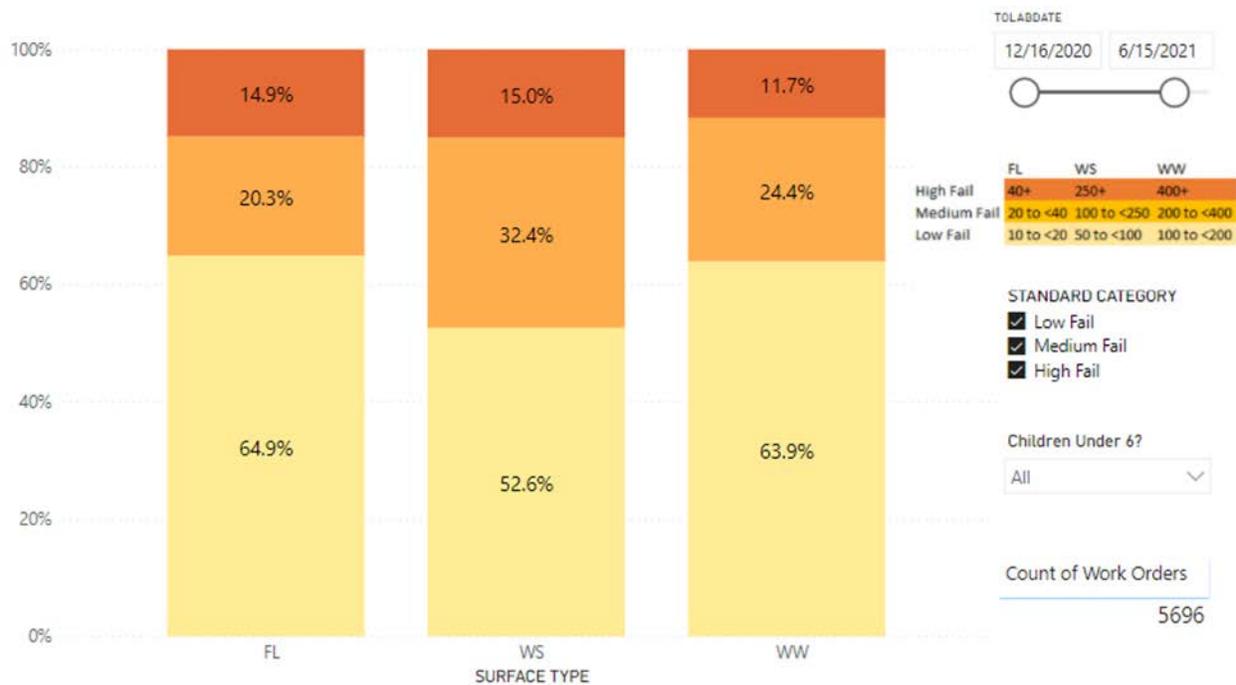
Surface	Federal	NYC (which NYCHA uses)
Floor	10 µg/ft ²	10 µg/ft ² <i>As of June 1, 2021:</i> 5 µg/ft ²
Window Sill	100 µg/ft ²	50 µg/ft ² <i>As of June 1, 2021:</i> 40 µg/ft ²

Window Well	400 µg/ft ²	100 µg/ft ²
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The chart below shows the lead levels of individual failed samples, broken down by a range of low, medium, or high fail categories from December 16, 2020 through June 15, 2021. Note, Compliance has not updated the chart to reflect the new clearance standards in effect for New York City as of June 1, 2021. It should be noted that NYCHA created the ranges for these categories as an evaluative tool, and that any failed sample requires re-cleaning and re-clearance. The ranges (in µg/ft²) are:

Result	Floor	Window Sill	Window Well
Pass	<10	<50	<100
Low Fail	10 to <20	50 to <100	100 to <200
Medium Fail	20 to <40	100 to <250	200 to <400
High Fail	40+	250+	400+

Samples for window sills in the Low Fail category pass the current federal standard of 100 µg/ft². Similarly, the samples for window wells in the Low Fail and Medium Fail categories pass the current federal standard of 400 µg/ft².



Analysis: The above-chart shows that most failed samples for all three surface areas is in the lower fail range. The Low Fail samples for window sills fail the stricter NYC clearance standards but would be below the current EPA standard of 100 µg/ft². Similarly, only the High Fail samples (11.7%) for window wells would be above the current federal standard of 400 µg/ft². Thus, the stricter NYC standards are driving most of the fails for window sills and window wells. However, for floors, the standard is the same and thus

the differences between the standards has no effect on this surface area. It should be noted, however, that on June 1, 2021, the NYC standard for floors lowered to 5 µg/ft² and for window sills lowered to 40 µg/ft². This analysis will be updated for the next report.

[Overall Description of Compliance for 15\(j\):](#)

With respect to final cleaning, during the Covered Period, NYCHA made progress towards compliance with the requirement set forth in Paragraph 15(j) of the HUD Agreement. Evidence of progress towards compliance consists of:

- The existence of policies and procedures;
- The improvement of IT controls and reporting on clearance examinations;
- Field monitoring observed high rate of compliance with cleaning verification and clearance protocols;
- Evidence of the RRP checklist in Maximo.

However, a review of the Maximo data still shows that NYCHA needs to improve the timing of initial clearance examinations and the performance of re-clearance examinations. NYCHA also needs to reduce the number of projects without clearance examinations and improve the lab turnaround time. NYCHA has also not instituted worksite protections after cleaning but pending final clearance results, which is a very significant aspect of the clearance requirements. This shortfall is intended to be addressed in the Initial Lead Action for units with child under 6 units, but NYCHA will face implementation challenges in operationalizing same day clearance or temporary relocation efforts.

NYCHA cannot certify to compliance with this paragraph until these shortfalls are addressed.