



MONITOR'S THIRD QUARTERLY REPORT

**FOR THE NEW YORK CITY
HOUSING AUTHORITY**

Pursuant to the Agreement dated January 31, 2019

Submitted by: Bart M. Schwartz
Federal Monitor

October – December 2019

Bart M. Schwartz
Guidepost Solutions LLC
415 Madison Avenue, 11th Floor, New York, NY 10017
844.309.6080
monitor@nychamonitor.com

www.nychamonitor.com

Table of Contents

I.	LETTER FROM THE MONITOR	1
II.	INTRODUCTION	3
III.	EXECUTIVE SUMMARY	3
IV.	PROGRESS UPDATES	6
	GRANT DISBURSEMENT AGREEMENT	7
	ORGANIZATIONAL PLAN	9
	COMPLIANCE AND RELATED DEPARTMENTS.....	10
	LEAD-BASED PAINT	23
	MOLD	39
	HEAT AND HOT WATER.....	43
	ELEVATORS.....	52
	PEST AND WASTE MANAGEMENT.....	56
	RESIDENT AND COMMUNITY ENGAGEMENT	63
	DRONE INSPECTIONS OF BUILDING FACADES.....	66
V.	CONCLUSION	69

I. LETTER FROM THE MONITOR

Dear New Yorkers,

The end of January marked the one-year anniversary of the settlement agreement that NYCHA and the City signed with HUD and the United States Attorney's Office. In that agreement, NYCHA promised to transform its operations to ensure "decent, safe, and sanitary" housing for all NYCHA residents.



Bart M. Schwartz, Federal Monitor

As we started this monitorship in March, it became clear that NYCHA did not know how to fulfill that promise. What NYCHA needed was a concrete blueprint for change. It needed a "planning mentality" rather than a "crisis mentality." As we have been reporting, in the past months we have helped NYCHA to develop comprehensive action plans for all of the critical services that NYCHA must provide to residents under the agreement. These include plans for: lead-paint remediation and abatement, mold abatement, heating services, elevator services, waste management, pest control, and the periodic inspections of units. Some of these plans were specifically mandated by the agreement. The others were required by me under my authority as Monitor. I have used this power to make sure that NYCHA commits to step-by-step written strategies – not just vague promises – demonstrating how it will accomplish specific performance targets under the agreement. These action plans are important tools because they define: i) what tasks NYCHA must undertake, ii) the resources needed to achieve them, and iii) the schedule within which the tasks will be completed.

Now that NYCHA is beginning to initiate the changes set out in these actions plans, the residents should see more work taking place at their developments. But NYCHA must develop a strategy to coordinate all of these efforts. For example, NYCHA currently lacks a comprehensive protocol for temporary housing when residents must be relocated for abatement or other repairs. Providing residents with hotel vouchers, which is largely the current practice, is unacceptable and only makes the relocation process more stressful for residents. NYCHA needs to generate apartment swing space at all of its consolidations so that when such temporary moves are needed, the burden on residents is minimized.

An unintended negative consequence of more diligent inspections and repairs is the potential for overwhelming residents with requests to access their apartments. In

addition to ordinary repair work, maintenance workers and other contractors may need to enter apartments for: lead-based paint remediation or abatement, mold remediation, pest treatments, waste initiatives, annual inspections, and, on occasion, as part of the capital process to replace elevators or heating systems. NYCHA must consolidate these appointments whenever possible. This is part of the larger issue of ensuring that NYCHA staff and residents have access to up-to-date and reliable information so they can plan accordingly. Given NYCHA's size (approximately 11,000 staff spread across five boroughs) and its organizational siloes, NYCHA needs to build a communications infrastructure from the top down that gets everyone on the same page.

Frankly, NYCHA needs to develop a "service mentality" towards its residents rather than just a "check the box" attitude. We too often have seen a systemic failure by NYCHA to verify information with residents as to whether appointments were kept or whether work was completed properly and on time. NYCHA has the same problem in its dealings with the community centers in its developments. For example, in the heat action plan NYCHA designated certain community centers as alternative heat spaces for residents to use during extended outages. When our field investigators went to those sites, we learned that several centers had no heat themselves and many had not been informed by NYCHA that they were expected to serve this role. As NYCHA moves forward with implementing all of the new actions plans, we will continue to press for better communication and greater accountability.

Because NYCHA under Chair and CEO Gregory Russ has demonstrated its good faith in working with me and my team on these and other issues for the benefit of the residents, I have invited NYCHA to include a letter in this report reflecting on the anniversary of the agreement. NYCHA's letter, which takes stock of its progress during the past year, is attached at Appendix 1.

We all recognize that there is more to do, and we repeatedly remind ourselves that the real test of all our efforts is how the changes get to the residents and improve their lives.

Respectfully Submitted,

Bart M. Schwartz

II. INTRODUCTION

We are now at the one-year anniversary of the settlement agreement signed by NYCHA, the United States Department of Housing and Urban Development (“HUD”), the City of New York, and the United States Attorney’s Office for the Southern District of New York (“SDNY”) (the “Agreement”). In that Agreement, which was executed on January 31, 2019, NYCHA promised to make significant improvements both organizationally and with respect to its handling of lead-based paint, mold, heating and hot water failures, elevator outages, pests, and waste. This Monitor’s Third Quarterly Report, as required by the Agreement, discusses the status of NYCHA’s efforts for the period from October through December 2019. We also include important developments that occurred in January 2020 in order to provide the most up-to-date information available.

III. EXECUTIVE SUMMARY

The Monitor’s role, in essence, is to hold NYCHA accountable for the promises it made in the Agreement on January 31, 2019. As we reflect on the past year, we note that NYCHA has made progress on multiple fronts although there are some areas where compliance is lacking. No one can expect an organization of NYCHA’s size and complexity to transform completely in one year. However, we believe that it is of the utmost importance to lay a solid foundation now so that future improvement is measurable, sustainable, and comprehensive.

Below we list a number of areas where important progress has been made this past year. While this and our two prior quarterly reports have pointed out where NYCHA has not met Agreement requirements, we also want to identify where improvements have occurred. This list is by no means a complete recitation of every single change at NYCHA; rather, it provides a snapshot of various ways in which NYCHA has engaged with the Monitor team to fulfill its promises under the Agreement and improve its operations to better serve residents.

- **Action plans.** In the past year, NYCHA has completed, or is close to completing, a number of action plans in areas such as PHAS inspections, mold abatement, heat services, elevators services, pest treatment, and waste management. Action plans provide a concrete and measurable blueprint detailing how NYCHA intends to fix the problems identified in the Agreement. We view these action plans as NYCHA’s contract with its

residents – a contract that sets out in detail how NYCHA will better manage its operations going forward so residents receive the services they deserve.

- ***Significantly improved heating services.*** NYCHA’s heat department has become more strategic and proactive in its operations: improving pre-season maintenance, better assessing the causes of system breakdowns, and hiring more staff to respond to breakdowns. Early statistics indicate that the beginning of this heating season has had fewer outages than last year, and that NYCHA is responding more effectively when outages do occur.

- ***Newly created NYCHA Waste Management Department.*** NYCHA has committed to creating this new department that will provide a more strategic structure for both waste management and pest control services. NYCHA will be better able to assess what level of staffing and resources (interior and exterior compactors, building trash chutes, trash storage receptacles) is needed at developments and will work with developments to create their own site-specific waste management plans.

- ***Better use of NYCHA’s data.*** The Monitor team is working with NYCHA to record and analyze its data more effectively so that NYCHA can identify recurring problems and focus its resources where they will have the most benefit. As an example, the Monitor team worked with NYCHA staff to create a heat dashboard using data from NYCHA’s own systems that shows, among other things: 1) repair staff response times, 2) outage lengths, 3) root causes for outages, and 4) the nature of the repairs made. Now, NYCHA, the Monitor team, and the public will have access to clear and concise information about how NYCHA is performing and what must be improved.

- ***Creating a new organizational plan.*** NYCHA’s current operations are uneven and deeply siloed. The reports and recommendations recently issued by the management consulting team are assisting NYCHA and the Monitor in rethinking NYCHA’s operations and identifying areas for improvement. The first parts of this new organizational plan and structure for NYCHA are expected to be released later this year.

- ***State funding for capital needs.*** New York State committed to a Grant Disbursement Agreement (“GDA”) allocating up to \$450 million in state reimbursement funds to replace ageing heating plants and elevators. The GDA was conditioned on the Monitor’s approval of an action plan identifying which boilers and elevators are selected for replacement and how the construction schedules are structured so that the projects will be completed within the required timeframe. The Monitor team worked closely with

NYCHA to finalize the plan and is now working with NYCHA as the initial projects are working through the RFP process for the selection of contractors.

- **Three new departments at NYCHA (Quality Assurance, Environmental Health & Safety, and Compliance).** We have worked with NYCHA to establish these three departments as required by the Agreement. The departments are beginning to play a key role in supporting NYCHA's ability to assess its own operations and ensure that it is in compliance with applicable federal, state, and city regulations.

- **Creation of the Community Advisory Committee ("CAC").** As required by the Agreement, the Monitor created the CAC to raise and resolve significant issues at NYCHA. The CAC is comprised of NYCHA personnel, resident association presidents, City Council members, City Hall staff, Monitor team members, and representatives from FDNY, NYPD, HUD, and other stakeholders. This wide-ranging collaboration has been essential for identifying problems at NYCHA and working towards comprehensive solutions. Beyond the CAC meetings, the Monitor has held four other meetings at development community centers so that residents have additional opportunities to express their concerns in a public forum.

- **Mold Assessment and Remediation.** While NYCHA has a long way to go to effectively remediate mold in apartments and common areas, NYCHA recently has made significant funding commitments to increase its staffing capacity in this effort. Mold Busters training was completed ahead of schedule and, when utilized, Mold Busters procedures have been reducing mold reoccurrence rates. A ventilation cleaning and roof fan upgrade project is now underway which, when completed, should greatly reduce the incidence of mold growth. The percentage of "unfounded" mold work orders was reduced from the previous quarter from 47% to 25%.

There are significant areas, however, in which NYCHA has been unable, or unwilling, to comply with the Agreement's directives. For example, NYCHA has not fulfilled various lead-paint obligations, and has acknowledged it will not complete certain required visual assessments on time. In these instances where NYCHA's progress is halting, we are working closely with our partners at HUD, the City, and SDNY to assist NYCHA and to ensure NYCHA gets back on track.

We note that residents will begin to see significant repair work at NYCHA developments in the immediate future as NYCHA begins to implement the various action plans and starts its Clean Buildings Initiative ("CBI"). As part of the CBI, NYCHA personnel will visit

apartments to perform pest inspections and to ensure that apartments and common areas are properly protected from infestations (e.g., by sealing access points). We have recommended to NYCHA that other inspections also be performed during such visits. As apartment access is intrusive and sometimes difficult to gain, this program could reduce the number of subsequent visits for other purposes, such as lead-based paint visual assessments and even XRF testing. Units could also be inspected for occurrences of unreported mold and for leaks and other repairs at the same time. Work orders would immediately be generated for all deficiencies. A standardized checklist would be created for Maximo and used on NYCHA handheld devices to ensure that all the required inspections were accomplished.

Although we recognize that providing NYCHA staff with access to apartments is a burden to residents, it is a necessary step for the improvement of residents' living conditions. We hope that residents will bear with NYCHA in the coming months as elevators and boilers are replaced, the CBI gets underway, and NYCHA ramps up inspections and remediations.

Beyond the work outlined in the various action plans, we are working with NYCHA to explore new technologies that can help NYCHA operate more efficiently and effectively. For example, one of our first suggestions at the outset of the monitorship was that NYCHA explore the use of drone technology for the inspection and repair of building facades. Drones can conduct high-resolution scans of building exteriors in a few hours or less, enabling engineers to identify potential hazards quickly and providing contractors with precise guidance about where repairs are needed. The implementation of this technology could eliminate the need for some of the unsafe and unsightly scaffolding surrounding NYCHA buildings and could save NYCHA and the City millions of dollars per year.

IV. PROGRESS UPDATES

In this section we provide detailed information on NYCHA's progress in the following areas: the planned replacement of boilers and elevators under the GDA; the development of a new organizational plan; the operations of the Compliance Department and related units; efforts relating to lead-based paint, mold, heat, elevators, pests, and waste management; and engagement with residents and other stakeholders. We also discuss how NYCHA can leverage new technology – specifically, autonomous drones – to improve the safety, efficiency, and cost-effectiveness of its operations.

At the outset of each section, where relevant, we include a chart summarizing NYCHA’s obligations under the Agreement and the current status of NYCHA’s efforts in meeting those provisions. A comprehensive copy of the chart is also attached at Appendix 2.

GRANT DISBURSEMENT AGREEMENT

In September 2019, New York State committed to a Grant Disbursement Agreement (“GDA”) that allocates up to \$450 million in state funds to replace heating plants and elevators at thirty-five NYCHA developments. The funding was conditioned upon the Monitor’s approval of an action plan detailing how NYCHA would use the funds, including a schedule and cost estimate for each new elevator and boiler.

The Monitor team worked extensively with NYCHA’s Capital Division to ensure that NYCHA had a comprehensive strategy for selecting, procuring, and installing the new equipment. NYCHA’s proposed GDA action plan was approved by the Monitor and released publicly on November 6, 2019. The plan, which is to be updated quarterly, is available on the Monitor’s website at the following link: <https://nychamonitor.com/wp-content/uploads/2019/11/GDA-Action-Plan-Approval-Transmittal-November-6-201927615.pdf>.

As outlined in the action plan, NYCHA has divided its heating plant replacement work into two phases. Phase I includes nine developments and thirty-seven boilers. The second phase includes sixteen developments and seventy-one boilers. NYCHA prioritized the sites based on its 2017 Physical Needs Assessment and operational data regarding the number of prior outages, work order tickets, and the availability of parts.

Heating Plants/Boilers (Phase 1 and 2)

Development	Equipment Year (PNA)	Boiler Count	Condition Rating (OP) 2018	Condition Rating (PNA) 2017
Phase 1				
830 Amsterdam	1996	2	3	3
Berry	1950	3	5	5
Eastchester	1987	4	3	5
Jackson	1986	4	5	4
Marlboro	1993	6	5	4
Pink	1990	6	5	3

Development	Equipment Year (PNA)	Boiler Count	Condition Rating (OP) 2018	Condition Rating (PNA) 2017
Tilden	1990	4	5	4
Ocean Hill Apartments	1980	2	5	3
Marble Hill	1986	6	4	3
Phase I Total		37		
Phase 2				
Amsterdam	2003	4	3	3
Bay View	1990	8	4	4
Brevoort	1990	4	5	3
Cooper Park	1987	4	4	4
Gowanus	1981	6	5	4
Johnson	1993	5	3	4
Lincoln	1985	5	3	3
Marcy	1979	7	5	4
Mott Haven	1998	4	2	3
Ravenswood	1986	7	5	3
Roosevelt I & II	1964	4	4	4
Smith	1992	6	3	3
UPACA (Site 5)	1986	2	4	3
Van Dyke I & II	1990	5	5	3
Phase II Total		71		
Phase 1 and 2 Grand Total		108		

NYCHA also identified 148 elevators across ten developments for replacement through the GDA action plan, as detailed in the table below. As with the heating plants, NYCHA used its 2017 Physical Needs Assessment and operational data to select the sites.

Development	Equipment Year	Elevator Count	Condition Rating (OP) 08/2019	Condition Rating (PNA) 2017	# of Senior (62+) Or Residents With Mobility Or Vision Issue at Dev.	% of Senior (62+) Or Residents With Mobility Or Vision Issue at Dev.	# of Buildings with single-car elevators	Elevator Outages/ Car/ Month (OP)	Roof Rating	Funding for Roof Replacement
Atlantic Terminal	2001	3	4	3	192	33.92%	0	0.92	5	Tranche 6
Carey Gardens	1992	9	5	4	461	28.51%	0	1.22	4.53	In Construction
Coney Island (4&5)	1994	6	5	3	146	29.14%	0	2	4.4	In Construction
Coney Island (1B)	1996	3	5	3	198	19.86%	0	0.58	4.6	In Construction
High Bridge Gardens	2001	12	3	3	390	24.21%	0	1.06	2.43	Completed
Butler	2000	18	3	3	661	15.44%	0	1.09	4.07	Tranche 4
Mitchell	1994	20	5	3	896	22.74%	0	3.06	4.35	In-Construction
Queensbridge North	1994	49	5	3	795	25.76%	13	0.52	1.24	Completed
Richmond Terrace	1995	12	5	3	175	14.00%	0	0.72	2	Completed
Unity Plaza	1992	16	5	3	266	16.60%	8	0.77	3	Completed
TOTAL		148								

The plan lists anticipated end dates for project design, procurement, construction, and completion. We will provide updates on the status of this effort in our future reports.

ORGANIZATIONAL PLAN

Section	Obligation	Agreement Deadline	Status	Monitor Comment
VI.A.44(b)	By the end of the 30-day period after the list of candidates is finalized, the City shall select a permanent Chair and CEO for NYCHA from the jointly-developed list of candidates.	04/01/19	Complete	New NYCHA Chair was selected by the City and started his tenure in August 2019.
VI.B.45	No later than 60 days after the appointment of the Monitor, the City shall engage a third-party management consultant selected jointly by the City and the Monitor. The consultant shall examine NYCHA's systems, policies, procedures and management and personnel structures, and make recommendations to the City, NYCHA, and the Monitor to improve the areas examined.	04/01/19	Complete	Management consultant completed its review and issued four reports examining NYCHA's organization and recommending improvements.

The Agreement required the City to engage a third-party management consultant to examine and document NYCHA's systems, policies, and procedures, and to recommend

improvements. As we previously reported, the management consultant selected – KPMG in conjunction with Bronner Group LLC – commenced its organizational review in May 2019. In this quarter, the management consultant completed its work and issued four reports detailing the current state of NYCHA’s operations and identifying opportunities for improvement.

The management consultant’s reports, which are publicly available on the Monitor website, provide a necessary foundation for assessing the most effective ways to bring positive and sustainable change to NYCHA. The Monitor team and NYCHA are working collaboratively to build on this foundation and to develop a comprehensive new organizational plan for NYCHA as required by the Agreement. The management consultant’s reports and recommendations will be evaluated and assessed side-by-side with NYCHA’s strategic plan to prioritize areas for improvement, with input from residents, staff, and other stakeholders.¹ We are holding weekly meetings with NYCHA staff to expedite this process, and we continue to target midyear for the release of the new organizational plan.

COMPLIANCE AND RELATED DEPARTMENTS

Section	Obligation	Agreement Deadline	Status	Monitor Comment
VI.C.53	No later than 45 days after the appointment of the Monitor, NYCHA, in consultation with the Monitor, shall establish and maintain a Compliance Department ...	04/15/19	Complete	The Compliance Department has been established and the Monitor is working with NYCHA to ensure it has sufficient staffing and a clear mission. This is true for the Environmental Health and Safety Department and the Quality Assurance Unit as well. See the first Monitor’s Report for details.

¹ NYCHA already has begun to solicit that input. Chair and CEO Russ has met with NYCHA executive staff in visioning workshops to develop ideas for the future state of the authority. NYCHA is also conducting property management workshops to get feedback from staff and residents at the development level about how to make impactful changes to the organization.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
VI.D.55	No later than 45 days after the appointment of the Monitor, NYCHA, in consultation with the Monitor, shall create an Environmental Health and Safety Department...	04/15/19	Complete	See above.
VI.E.57	No later than 45 days after appointment of the Monitor, in consultation with the Monitor, NYCHA shall create a Quality Assurance Unit...	04/15/19	Complete	See above.
VI.E.59	No later than 60 days after the appointment of the Monitor, NYCHA shall provide HUD, SDNY, and the Monitor with a certification of compliance with paragraphs 53 – 59.	05/01/19	Complete	Monitor has continued discussions with NYCHA to refine and enhance NYCHA's approach. See first report for details.

In this section, we discuss the operations of each of the departments required by the Agreement – the Compliance Department (“Compliance”), the Environmental Health & Safety Department (“EHS”), and the Quality Assurance Unit (“QAU”) (collectively, the “three departments”). As noted in our second quarterly report, EHS and QAU were still in the very early stages of formation, and had experienced some difficulties in recruiting appropriate staff and with management turnover. In this quarter, the Monitor team was encouraged to see that the three departments, as they grow into their roles, are collaborating on a number of issues in productive and creative ways.

The Monitor team has continued its practice of meeting individually with the heads of the three departments and their deputy directors to discuss ongoing projects, deliverables, successes, and potential impediments to success. We continued to review and offer commentary on procedural documents, several of which were finalized this quarter, notably the PHAS Action Plan, published on October 30th, and the associated revised standard procedure (“SP”), “Repair Standards and PHAS REAC Inspections,” issued on December 19th. We now discuss each of the departments in turn.

Compliance Department

From the onset of the monitorship, we have challenged NYCHA’s assumptions regarding the resources necessary to create a Compliance Department that could meet all the requirements stipulated in the Agreement as well as assuming a key role in driving cultural change at NYCHA. A principal concern was the department’s proposed staffing, both in terms of numbers and skill sets. We can now report several positive staffing developments in Compliance: the interim head of the department has accepted the permanent position of Chief Compliance Officer (“CCO”) and the deputy director of Compliance Integration, Reporting and Evaluation (“CIRE”) has been promoted to the

newly created position of Vice President, Compliance. The latter move should remove some of the day-to-day responsibilities for managing the department from the CCO. Compliance has a candidate identified for a Senior Advisor, who is anticipated to start in February 2020. Each of the units within Compliance has added staff and/or has approval for additional positions, a development which is encouraging in light of the importance of the role of Compliance in monitoring, training, advising, and investigating activities at NYCHA.

Another issue that continues to be a subject of discussion is the appropriate role of Compliance in the disciplinary process at NYCHA. The current practice of including instructional and/or counseling memos at the conclusion of an investigation when warranted could be viewed as interfering in a process more properly handled by Operations in conjunction with Human Resources and Legal. In the short term and in the current environment at NYCHA, Operations may welcome the assistance. However, if Compliance wishes to gain the trust and respect of all NYCHA employees and become a true agent of cultural change, it needs to guard against becoming viewed as the “enforcer.”

As we described in our last report, Compliance has four operating units – Compliance Inquiry Review and Assessment (“CIRA”), CIRE, Monitoring Unit (“MU”), and the Procedures Unit (“Procedures”). The following sections highlight key developments or activities that occurred during the quarter in each of those units.

Compliance Inquiry Review and Assessment (CIRA)

CIRA’s primary responsibility is the continued maintenance and refinement of the Complaint Forum which was created to meet the requirement under the Agreement for each of the three departments to create a “forum” for internal and external parties (“stakeholders”) to make complaints regarding compliance, environmental health and safety issues, and concerns about the quality and timeliness of maintenance and repair work being performed at the developments, and to conduct investigations when appropriate.

During this quarter, CIRA continued to perfect its metrics and reporting around the activities of the Complaint Forum and began sending a monthly report to the Chair and General Manager, called the *Complaint Forum Summary Report*. Reports were sent covering the months of October, November, and December 2019. The reports provide detailed breakouts of complaints received by various departments (Compliance, EHS, QAU, and Customer Operations) and the status of those complaints (open, in progress,

completed, closed, cancelled). Compliance has been able to continually refine its triage process with the result that the participating departments are receiving substantive and appropriate complaints from the forum which must, in turn, be investigated.

From June through December 2019, Compliance, EHS, and QAU received 824 complaints via the Complaint Forum portal which resulted in 178 investigations. 51% of the complaints handled by Compliance related to alleged violations of a NYCHA policy or procedure; 42% of EHS complaints involved mold; and 76% of the complaints referred to QAU concerned poor quality or incomplete repair work. With the introduction of the Compliance option (#7) on the Customer Call Center ("CCC") IVR system in mid-September, callers selected the Compliance option slightly over 12,500 times. Of those calls logged by the end of December, 3,655 were routed to CIRA. However, after triage by CIRA's case agents, only 74 calls were entered into the forum portal and subsequently 26 complaints were handled by one of the three departments. This means that since the inception of the IVR Compliance option, less than 1% of total calls in which the caller selected Compliance actually ended up as potential Compliance, EHS, or QAU issues.

CIRA has added temporary staff, complaint specialists, and information clerks for the increased volume. The Monitor team recently learned that CIRA was considering expanding its hours of IVR availability to include additional hours during the week and 24-hour coverage over the weekend. Given the fact that such a small number of Compliance calls received via the IVR turn out to be compliance matters and the potential cost to expand Compliance staff availability, the decision was made not to pursue this strategy. Perhaps some of the misdirected calls and apparent misunderstanding of the option could be reduced with a robust resident engagement communication plan or, as CIRA has suggested, some rethinking regarding the IVR menu options. We will follow-up with this matter in the coming months.

With oversight from the deputy director, CIRA's investigative work is primarily conducted by its senior analyst with assistance from case agents. CIRA expressed the need for more investigative staff and we concurred. In addition to investigations that come through the portal, in October CIRA completed an analysis on referrals that NYCHA received from the Inspector General. On January 3, 2020, CIRA submitted a quarterly summary of the status of 1,085 Housing Authority Inspector General Referrals received for the period November 2018 through October 26, 2019. During the quarter CIRA received budgetary approval to add a senior and a junior investigator as well as a junior analyst. These positions are welcome additions.

Compliance Integration, Reporting and Evaluation (CIRE)

CIRE continues to develop as an operating unit and during the quarter it succeeded in meeting several significant project milestones. CIRE added two data analysts and two compliance integration specialists this quarter and has an additional data analyst position open. The unit consistently produces a quality work product.

Training

As anticipated, NYCHA Compliance 101 Training, which was developed by CIRE with input from the Monitor team, was rolled out this quarter. All employees are required to take the course which includes detailed information on requirements set out in the Agreement concerning lead, mold, pests, etc., and concludes with a test. A considerable portion of the training is devoted to ethics, non-retaliation, and NYCHA's standards of conduct. To date, CIRE reports that 4,418 out of 9,622 NYCHA employees have completed the online training and almost 91% of attendees have scored a passing grade (70%+) on the post-training test. The 9,622 number counts staff with an email address and access to a computer. The remaining approximately 2,000 NYCHA employees without such access will be trained via webinar. Feedback on the course has been generally favorable and CIRA intends to train the remaining employees in Q1 2020. Attendance will be tracked by the Learning and Development Department with the aid of a new Learning Management System ("LMS") recently acquired and to be deployed in the coming months. CIRE has also followed-up with email reminders to Executive Vice Presidents regarding staff that has not yet taken the course.

The Agreement assigns responsibility to the CCO for ensuring compliance with HUD regulations and guidelines with respect to PHAS REAC inspections. This includes ensuring that NYCHA employees receive training on PHAS REAC inspections and related HUD regulations. CIRE manages this project which is discussed in more detail *infra* in a separate section of this report, PHAS REAC Inspections.

Several areas in the Agreement call for technical training of various types as well as the requirement that NYCHA management and staff receive appropriate compliance training. To assess NYCHA's overall training needs, the Compliance Department first needed to determine the current state of training at NYCHA. As NYCHA did not have an LMS, CIRE utilized data compiled by an outside consultant in 2018 and developed a methodology for verifying and supplementing that information. CIRE obtained all current training contracts from the Procurement Department and conducted interviews with the "training contacts" from eight departments at NYCHA, including Operations, Capital Projects and Leased Housing, among others. These interviews enabled CIRE to identify gaps in

training offerings, resourcing, and training requirements. CIRE has shared a draft of its initial work and anticipates handing over a final report to executive staff and Learning and Development for further action in Q1 2020. The Monitor team regards an accurate training inventory and the implementation of an LMS as key drivers of compliance and cultural change at NYCHA.

External Reporting

Under the Agreement, Compliance is to ensure the accuracy of external reporting and statements by NYCHA, a responsibility that has fallen to CIRE. As a first step, CIRE created an index of all external reports and certifications made by NYCHA to regulatory agencies which we reviewed. In the coming quarter CIRE will seek to verify the completeness and accuracy of the index it has created by conducting workshops with business units to determine whether internal controls exist to review and validate content prior to submission to an outside agency. If a process exists, CIRE will participate in that process on behalf of Compliance. If no internal controls are identified, CIRE will work with the business unit to create and document an appropriate process.

Risk Assessment

CIRE, in partnership with the Performance Tracking and Analytics Department ("PTAD"), worked to compile a matrix of key indicators to analyze risk across developments and to build an algorithm that weighs those key indicators and assigns a risk score to a development. The idea being that, once scored, Compliance will have a better idea of where and how to focus Compliance resources such as monitoring and integration. The first ranking of developments was done this quarter and the six lowest-ranked developments have been chosen for the initial Compliance monitoring initiative which begins Q1 2020. Both the MU and CIRA will participate in the project. We heartily endorse this initiative and will follow this activity closely going forward.

Monitoring Unit (MU)

In several regards the MU had a productive quarter; it added team members with field and analytic skills; it produced reports on a number of monitoring projects; and, as EHS and QAU have further defined their missions and staffed up, the MU has effectively collaborated with them across departments, sharing resources and expertise.

Ongoing Projects

MU's projects generally involve a combination of desktop analysis, field observations, and interviews or surveys. Several of its current projects are ongoing from earlier quarters and many involve one of the pillars of the Agreement. For example, the Compliance Department compiles a Monthly Exception Report as part of the Lead Compliance Assurance Plan. The purpose of this report is to inform NYCHA leadership about the status of lead compliance in advance of the bi-annual certifications. The MU and EHS collaborate on aspects of the report, with the MU performing data analysis regarding work order documentation as it relates to lead abatement and renovation and repair activities. The MU will continue the work it began in July regarding trash and pest management practices in support of Agreement requirements, specifically ¶45 of Exhibit B. The unit conducts development site visits during which it interviews development staff about trash management practices. During the visit, the MU maps trash bins, recycling bins, exterior compactors, etc., and flags concerns which are then communicated to the Chair's Office. The purpose of the project is to assist Operations in developing individualized Waste Management Plans for each development.

The MU is also involved in NYCHA's response to mold. Collaborating with CIRA, EHS, and the QAU, it conducts investigations of mold complaints received via the Complaint Forum, the mold ombudsperson, and other mechanisms to verify that these complaints are properly addressed within the required timeframes. In discussing this project with the Monitor team at the end of the quarter, MU in conjunction with CIRA reported that it had found 37 incidences of a failure to adhere to the mold standard procedures; the majority of these were attributable to a lack of understanding of the processes required and additional training was recommended.

In addition to the above, the MU played a key role in Compliance's monitoring of the Q3 round of PHAS REAC inspections, discussed in more detail in the PHAS REAC inspections section of this report.

New Projects

In addition to significant ongoing projects, the MU plans to begin several other initiatives in the coming months. Perhaps the most potentially impactful project is the development level risk assessment referred to above. Utilizing the risk indicator analysis done by CIRE, MU will conduct onsite evaluation of one development per month. Over the course of one week a team will assess and identify any operating deficiencies that exist in a number of areas, including but not limited to, annual certification, rent collection, mold, heating, elevators, general maintenance-repair performance, small purchase procurement,

pest/waste management, and performance of daily inspections. In preparation for this onsite visit CIRE will conduct in-depth interviews with Borough Directors and Regional Asset Managers and CIRA will conduct interviews with Tenant Association Presidents to ascertain attitudes and beliefs about compliance risks faced by NYCHA in their developments. A report will be issued for each development visited which will include corrective action recommendations. MU will monitor compliance with these recommendations. The project is starting with six developments, one each month. As of the submission of this report, the first development chosen has been the subject of a one-week study.

Procedures Unit (Procedures)

In the six-month Compliance roadmap concluding in December 2019, Procedures was anticipated to create or update 15 SPs or manuals. The unit completed all of its assignments. The current six-month roadmap includes 22 SPs, action plans, manuals, or reviews slated for attention by the unit. The range of topics continues to be broad, from a new SP to establish processes for NYCHA to ensure contractor and subcontractor compliance with HUD's Section 3 requirement to updates of various SPs related to maintenance work orders and NYCHA's administration of guarantees and warranties. As we observed in our last report, while these procedures are "owned" by the business unit or function where the subject matter expertise resides, the bulk of the burden of drafting these procedures generally resides in Procedures rather than simply the editing or packaging of a document that has originated elsewhere. As we also noted previously, accountability for the timely and consistent maintenance of SPs elevates process and promotes compliance. In considering organizational changes, the possibility of a restructuring of responsibility for procedures creation deserves attention.

Environmental Health & Safety

During Q4, EHS made significant strides towards establishing itself operationally at NYCHA. The interim EHS Officer was named to the permanent position; additional staff, permanent and temporary, was added to each of the operating units – Environmental Hazards Unit ("EHU"), Building Systems Safety Unit ("BSSU"), Employee Safety Oversight Unit ("ESOU"), and Analysis and Engagement Unit ("AEU"); and several procedural documents, templates, and checklists were drafted to assist EHS oversight specialists in performing their inspections and reviews and to establish consistency in the reporting of same.

Environmental Hazards Unit (EHU)

The EHU includes the lead, pests, and indoor quality oversight teams. In the quarter, EHU reported initiating approximately 40 investigations into complaints received from residents and employees, the majority of which related to mold. Several investigations were escalated to the CCO to develop corrective action plans. To ensure the proper handling of mold complaints received by the Baez Ombudsman, the EHU established a working relationship with the Ombudsman Call Center.

EHU oversees field compliance monitoring for NYCHA's lead hazard reduction activities, such as abatement or interim controls, or work that disturbs lead-based paint such as renovations, repair work, and painting jobs. EHU staff observe NYCHA personnel and vendors while they perform RRP work; inspect development store rooms to verify the presence of RRP necessary supplies; and review the development's management of lead disclosure files. The lead team (one administrator and five specialists) uses the RRP compliance checklist and creates a monthly *EH&S RRP Inspection Report* which is incorporated into the lead *Exceptions Report* produced monthly by Compliance. We have reviewed the inspection reports for the quarter and concur that the data therein will provide a useful basis for reporting on RRP compliance trends at NYCHA. 302 RRP compliance inspections were completed during Q4 and EHU reported that five observations of non-compliant RRP actions by certified renovators were escalated to the CCO.

EHU has created two process documents, *Environmental Health & Safety Lead Oversight Inspection Guide*, and *EH&S Lead-Based Paint Compliance Assurance Field Oversight Plan*, which were shared with the Monitor team in draft. The inspection guide is a reference document for generating and managing lead compliance inspection work orders in Maximo. The oversight plan "establishes roles, responsibilities and qualifications for personnel providing oversight protocols for identifying weekly observation targets, compliance assurance checklists, corrective action protocols and compliance monitoring and reporting for lead-based paint activities observed."² EHU anticipates that this plan will form part of the Lead Compliance Assurance Plan which should be finalized Q1 2020. An RFP for lead-based paint compliance assurance personnel to supplement the lead team was issued in October 2019 and is moving through the procurement process with final approval estimated by March 2020.

² *EH&S Lead-Based Paint Compliance Assurance Field Oversight Plan (DRAFT)*, Department of Environmental Health & Safety, November 2019, p.1.

Building Systems Safety Unit (BSSU)

BSSU, with oversight of heating, elevators and fire safety, continues to struggle with recruiting technical staff. The unit has focused this quarter on preparing for and executing on its responsibilities under the Heat Action Plan. The plan designates EHS as the entity that is responsible for performing a Root Cause Failure Analysis (“RCFA”) for heat outages over 12 hours in duration to determine the root cause of the service failure. BSSU reported initiating 23 investigations into complaints regarding heating outages in Q4. BSSU represents EHS on the Heating Action Plan pillar team.

Each of the specialist teams in EHS is participating in the development of compliance assurance plans. BSSU’s heat and elevator teams have conducted limited inspections in their respective subject areas for the purpose of developing inspection checklists that will be used as a basis for the creation of Elevator and Heat Oversight Inspection work orders in Maximo. All of these efforts are designed to promote consistency and accuracy in the data which will be used to perform trend analysis.

Oversight specialists in EHS are viewed as subject matter experts in their respective areas. As such, it is critical that they maintain their professional certifications; moreover, they should be encouraged to practice continual learning. We can report that EHS management shares this view and provides its staff with ample opportunity to pursue professional development.

Quality Assurance Unit (QAU)

At the end of Q3, NYCHA named a permanent Quality Assurance Officer (“QAO”) to head the unit. The QAO is a seasoned investigator who inherited a group of 12 experienced investigators who had been transferred from the Leased Housing Department. As the head of the unit acclimated himself to NYCHA, his inspectors continued to perform routine QA inspections as well as assisting Compliance with post-PHAS monitoring. In Q4, the QAU completed work order and health and safety checks at 100 different locations. QUA provided the Monitor team with a copy of the QA Inspection Report for the period. Of the 11,951 attempted QA inspections (inspection work order created and QA inspector assigned and deployed), 7,522 inspections were completed, representing a 63% success rate. Of the QA inspections completed, 210 or roughly 3% were unsatisfactory; this is consistent with data reported previously when we saw average monthly satisfaction rates of 95-97%.

QAU also conducts health and safety checks when performing the QA inspection. The number of unsatisfactory rates for these health and safety checks was much higher: 26% or 1,985 units were found to be unsatisfactory in one of these areas: fire safety notice, CO detector, window guards, smoke detectors, ground-fault circuit interrupter, or apartment door. The majority of unsatisfactory findings were related to smoke detectors.

In addition to the general QA on work orders and the health and safety checks, QAU looked at 124 vendor work orders for painting: 3% of those jobs (four) were found to be unsatisfactory. Upon further review, QAU determined that the work on one of the four jobs identified was performed by NYCHA and two of the jobs did not actually require painting. In one instance, the vendor was responsible for the unsatisfactory work and a report was filed.

QAU has made some progress in staffing, with a QA director and a project manager who will be joining in January and another offer made for the second project manager position. The unit is also seeking to hire an investigative attorney and the QAO reports that he has several promising candidates. Only the QA analyst and metrics and reporting analyst positions remain vacant. QAU may also receive requests for investigative work directly from the office of the General Manager to whom the unit reports. The QAO estimates that QAU may need 8-10 more inspectors and an administrative person to complete the unit. We concur. Workflows and an SP for the unit remain in draft but are anticipated to be finalized in Q1 2020. We shall review and comment if necessary.

PHAS and Other Inspections

PHAS Inspections

Section	Obligation	Agreement Deadline	Status	Monitor Comment
V.I.F 62(h)	By 90 days after the appointment of the Monitor, NYCHA will submit an Action Plan to the Monitor for meeting the requirements in the Agreement regarding PHAS Inspections	06/1/2019	Complete	NYCHA timely submitted a draft PHAS Action Plan to the Monitor. After first rejecting the plan, the Monitor, SDNY, and HUD have worked with NYCHA to revise the Plan which has now been finalized and accepted by the Monitor.

Annual Inspections

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.E.48	By and after ninety (90) days after the Effective Date of this agreement, annual inspections shall include having the person conducting the inspection perform any minor repairs during the inspection.	05/01/19	Complete	NYCHA has implemented this as policy. Monitor has not received information to verify compliance.
Exhibit B.E.49	By one hundred and twenty days (120) after the appointment of the Monitor, NYCHA will submit an Action Plan to the Monitor for complying with the requirement to conduct annual inspections and perform minor repairs during such inspections. The Action Plan shall include procedures for (i) on-site completion of minor repairs during inspections, and (ii) the scheduling of other inspection-identified maintenance deficiencies for subsequent repair.	07/01/19	In progress	NYCHA submitted a revised draft Plan on January 16, 2020. Monitor is working with NYCHA, HUD, and SDNY to finalize the Plan.

HUD requires that all federally-assisted public housing properties provide housing that is decent, safe, sanitary, and in good repair at all times. To ensure that these requirements are met, HUD regularly performs inspections to assess the physical conditions of public housing properties. These are known as PHAS (Public Housing Assessment System) inspections and are conducted by inspectors deployed by HUD’s Real Estate Assessment Center (REAC). REAC is a HUD program office whose mission is to provide and promote the effective use of accurate, timely, and reliable information assessing the condition of HUD's portfolio; to provide information to help ensure safe, decent, and affordable housing; and to restore the public trust by identifying fraud, abuse, and waste of HUD resources.

The Agreement required NYCHA to develop a PHAS Action Plan (“PHAS Plan”) to correct its prior deficiencies related to PHAS REAC inspections. In the PHAS Plan, NYCHA was to describe in detail the steps it would take to ensure that it complied with all the regulations governing its behavior before, during, and after a PHAS REAC inspection. In particular, the PHAS Plan was to include internal controls designed by NYCHA to prevent deceptive practices such as covering up or hiding conditions that need repair, or making false statements or deliberate omissions in reporting. The PHAS Plan also needed to address training on industry standards for maintenance and repair work and to include a

communications strategy that emphasizes the need for year-round quality maintenance and encourages employees to report deceptive or otherwise improper PHAS practices to the Chief Compliance Officer who is charged with investigating such complaints. As we described in our last report, the Monitor team provided significant feedback to NYCHA to ensure that the proposed plan fulfilled the Agreement's requirements. With input from the Monitor and comments from SDNY and HUD, the PHAS Plan was approved and issued on October 30, 2019.

HUD restarted its 2017 PHAS REAC inspection cycle, which had been on hold, in July 2019. Inspections concluded in October 2019. Although the PHAS Plan was still in the process of being reviewed, it was activated. On January 6, 2020, Compliance submitted its first "*Semi-Annual PHAS Action Plan Evaluation Report*" to NYCHA's Risk Advisory Council and the Monitor as required by the PHAS Plan and, generally, it confirmed compliance with the actions outlined in the plan. Activities required by the PHAS Plan and reviewed and followed by the Monitor team included, but are not limited to, the following:

- Issuance of an updated SP – This occurred on December 19, 2019, after extensive revision in consultation with the Monitor team.
- PHAS REAC training for NYCHA staff – At the close of 2019, over 700 NYCHA employees had attended the three-day training and NYCHA is on-track to complete the additional training in 2020. While attendance has been quite good, CIRE has encountered some difficulties in securing the cooperation of operations supervisory personnel in pursuing and/or disciplining those individuals who have failed to show up for the training. The need for training is imperative; non-compliance is not an option. The Monitor team will be following this issue closely in the coming weeks.
- As required, a PHAS communication plan was submitted by the Resident Engagement Department to the Monitor for review in December. The actual content of the videos, posters, etc., will be developed in the next few months in consultation with the Monitor team.
- The identification and investigation of deceptive practices was the focal point of a project executed by the MU with the assistance of QAU that included onsite monitoring surrounding the actual PHAS REAC inspection period and post-PHAS investigations focusing on staff response to Exigent Health & Safety deficiencies. These efforts uncovered some improprieties requiring corrective action.

- A review of Maximo failure codes and problem codes with the goal of better aligning these codes with HUD’s Exigent Health & Safety codes is ongoing. It is one of a long list of Maximo revisions and additions that are underway or in the IT queue as a result of the Agreement.

On December 3, 2019, Compliance hosted a meeting to discuss the results of the recent HUD REAC inspections and issues identified during this PHAS cycle. Attendance included a range of interested parties from property management, operations, Compliance, PTAD, etc. Overall the scores in this round of inspections were extremely low resulting in the need for significant appeal work. It became apparent in the discussion that there is an urgent need for specific and targeted training regarding the appeals process. We anticipate following up with Training and Development and PTAD.

The Agreement also requires that NYCHA draft and submit an action plan to the Monitor regarding how it will conduct annual apartment inspections and perform minor repairs during such inspections. As reported previously, the Monitor team has solicited comments from HUD and SDNY. We anticipate that the action plan will be finalized in early 2020.

LEAD-BASED PAINT

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.B.4(a)	No later than 30 days after execution of this Agreement, NYCHA shall provide the SDNY and HUD a report identifying all developments that meet the following requirements: (i) they were built prior to January 1, 1978, and (ii) are not exempt pursuant to 24 C.F.R. § 35.115, as a result of an inspection, an abatement, or otherwise (the “Lead Paint Developments”). Such report will identify each unit (including each “child-occupied facility”) within such Lead Paint Developments that is not exempt pursuant to 24 C.F.R. § 35.115 (“Lead Paint Unit”).	03/01/19	Partially Completed	NYCHA submitted the report as to residential units to SDNY, HUD and Monitor.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.B.4(b)	No later than 30 days after execution of this Agreement, NYCHA shall provide the SDNY and HUD...a report (the "Immediate Action List" (IAL)) identifying the subset of LPU that NYCHA has reason to believe are occupied or routinely visited by a child under the age of 6. Routine visiting shall be determined in conformance with the first sentence of the definition of child-occupied facility at 40 C.F.R. § 745.83.	03/01/19	Partially Completed	NYCHA submitted the report of IAL as to residential units to SDNY, HUD and Monitor.
Exhibit A.B.5(a)	Within 30 days of execution of this Agreement, NYCHA shall ...perform at least one visual assessment in accordance with 24 C.F.R. § 35.1355 of each Lead Paint Unit on the IAL unless the LPU received a compliant visual assessment within the preceding 12 months.	03/01/19	Partially Completed	NYCHA self-reported 99% completion rate for residential units. For further details, see the Lead Based Paint Exceptions report at page 4.
Exhibit A.B.5(b)	Within 30 days of execution of this Agreement, NYCHA shall ... eliminate any lead-based paint hazards in LPUs identified on the IAL through the performance of interim controls in accordance with 24 C.F.R. § 35.1330, or through abatement in accordance with 24 C.F.R. § 35.1325.	03/01/19	Not Completed In progress	NYCHA self-reported compliance with respect to residential units (except where access issues prevented work). See the 12-18-2019 Exceptions report (page 5), Compliance will provide a report on the status of interim controls based on the 2019 visual assessments in the Third Exceptions Report (in January 2020). Though NYCHA self-reported completion of paint corrections, it cannot certify compliance with the applicable regulations.
Exhibit A.B.6	No later than 90 days after execution of this Agreement, NYCHA shall submit to the SDNY and HUD documents sufficient to show NYCHA's basis for claiming that particular pre-1978 developments are exempt pursuant to 24 C.F.R. § 35.115. To the extent that HUD and SDNY thereafter notify NYCHA that they reject that determination, such developments, units and common areas will no longer be considered by NYCHA to be exempt pursuant to 24 C.F.R. § 35.115. If HUD and SDNY (a) object to the exemption for a particular development, unit, or common area, and (b) the lack of	05/01/19	Completed	NYCHA provided documentation to HUD and SDNY.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
	<p>exemption would have led to the inclusion of additional units or common areas on the Immediate Action List, NYCHA shall within 30 days thereafter comply with paragraph 5 as to such additional apartments.</p>			
<p>Exhibit A.G.19</p>	<p>Within 30 days of appointment of the Monitor, NYCHA shall provide the Monitor a list (the "EIBLL/EBLL-Triggered Risk Assessment List") of all units, common areas servicing such units, and developments in which neither an environmental investigation nor a risk assessment was performed since the date of: (a) the reporting to NYCHA (if on or after July 13, 2017) of a case of a child under age 6 with an elevated blood lead level (EBLL) (as those terms are defined in 24 C.F.R. § 35.110, as amended by 82 Fed. Reg. 4151 (Jan. 13, 2017)) living in such unit and development, or (b) the reporting to NYCHA (if before July 13, 2017) of a case of a child with an elevated blood lead level (EIBLL) (as those terms were defined in 24 C.F.R. § 35.110, prior to amendment by 82 Fed. Reg. 4151 (Jan. 13, 2017)) living in such unit and development.</p>	<p>03/01/19</p>	<p>Completed</p>	<p>NYCHA provided the Monitor with the list. Monitor has pending inquiries related to NYCHA EIBLL follow up.</p>
<p>Exhibit A.G.20</p>	<p>After providing the Monitor the EIBLL/EBLL-Triggered Risk Assessment List, within a timeframe acceptable to the Monitor, NYCHA shall confirm that the New York City Department of Health and Mental Hygiene ("NYC DOHMH") has performed an environmental investigation in accordance with 24 C.F.R. § 35.110, 1130, in any unit and common areas servicing that unit identified in the EIBLL/EBLL-Triggered Risk Assessment List. To the extent the NYC DOHMH has not performed an environmental investigation in accordance with 24 C.F.R. § 35.110, 1130, in any unit and common areas servicing that unit identified in the EIBLL/EBLL-Triggered Risk Assessment List, NYCHA shall perform such environmental</p>		<p>Completed</p>	<p>After inquiries by the Monitor, NYCHA has been providing weekly updates on the status of each reported EIBLL. See report for more details.</p>

Section	Obligation	Agreement Deadline	Status	Monitor Comment
	investigation within a timeframe acceptable to the Monitor.			
Exhibit A.G.21	After issuing or receiving the report of the environmental investigation, within a timeframe acceptable to the Monitor, NYCHA shall complete the abatement of identified lead-based paint hazards in accordance with 24 C.F.R. § 35.1130(c) and 35.1325.		In progress	The Monitor receives reports of follow-up activity and is auditing a sample of these reports.
Exhibit A.G.22	NYCHA shall perform risk assessments for all other units in the building in which a child under age 6 resides or is expected to reside on the date lead-based paint hazard reduction under Paragraph 21 is complete, and common areas servicing those units in the developments identified in the EIBLL/EBLL-Triggered Risk Assessment List, within a timeframe acceptable to the Monitor.		In progress	NYCHA is in the process of procuring a contract for risk assessments which is expected by January 2020. See the 12-18-2019 Exceptions report (page 20), 180 risk assessments in IAL units at six high-risk developments were completed.
Exhibit A.H.23	NYCHA shall report to HUD each confirmed case of a child with an elevated blood lead level within 5 business days of being so notified in accordance with 24 C.F.R. § 35.1130.		Ongoing	NYCHA is in compliance with the obligation.
Exhibit A.H.24	No later than 60 days after the execution of this Agreement, NYCHA shall enter into a written agreement (MOU) with the NYC DOHMH resolving any barriers to the sharing of information relating to resident children's blood lead levels necessary for NYCHA to make disclosures to HUD in accordance with paragraph 23 and 24 C.F.R § 35.1130, and shall provide a copy of such agreement to SDNY and HUD.	04/01/19	Complete	MOU has been signed.
Exhibit A.H.25	NYCHA shall report to the Monitor and to SDNY and HUD any NYC DOHMH Commissioner order to abate lead-based paint within five days of receiving any order.		Ongoing	NYCHA is reporting to HUD and the Monitor.
Exhibit A.H.26	On and after the Effective Date, to the extent NYC DOHMH has not performed an environmental investigation of any unit in which a child with an elevated blood level has been reported within 15 days of identifying such unit, NYCHA shall perform an environmental investigation of that unit and common areas		Ongoing	NYCHA provides weekly updates regarding all EIBLL occurrences and related responsibilities.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
	servicing that unit and perform abatement of any lead-based paint hazards within thirty days in accordance with 24 C.F.R §§ 35.1325.			
Exhibit A.H.27	From and after the Effective Date, NYCHA shall provide residents signing new leases (or, where required by regulation, renewal leases) with information about the presence of lead-based paint and lead-based paint hazards in their apartments and developments in accordance with the Lead Disclosure Rule, 24 C.F.R part 35, subpart A; 40 C.F.R. part 745, subpart F.		Ongoing	NYCHA acknowledges that it is not fully complying with this requirement. As a result, NYCHA is working on IT enhancements for this as part of its LBP Compliance Program.
Exhibit A.H.28	NYCHA shall ensure that physical copies of all materials required to be disclosed by the Lead Disclosure Rule are present, available for inspection, and permanently maintained at the management office for each development.		Ongoing	NYCHA's Compliance Department monitors its compliance with this obligation on an ongoing basis. NYCHA reports compliance. Verification by Monitor is ongoing.
Exhibit A.H.29	NYCHA shall ensure that electronic copies of all materials required to be disclosed by the Lead Disclosure Rule are available to residents through an internet-based portal.		In progress	NYCHA reports that this will be completed during the first quarter of 2020.
Exhibit A.H.30(a)	No later than 120 days after execution of this Agreement, NYCHA shall submit to SDNY and HUD a statement describing its compliance with paragraphs 4-6. In its submission to SDNY and HUD, NYCHA shall specify the method(s) used to correct any lead-based paint hazards identified on the Immediate Action List and certify that such corrections were performed in compliance with the Lead Safe Housing Rule, Renovation, Repair and Painting Rule and Abatement Rule, as applicable, and that residents were notified of the corrections in compliance with the Lead Safe Housing Rule.	05/01/19	Complete	See first quarter Monitor's report (pages 36 and 37) for more detail.
Exhibit A.H.30(b)	Six months after the Effective Date, and every six months thereafter, NYCHA shall provide SDNY, HUD and the Monitor a certification describing its compliance with paragraphs 8 to 15.	08/01/19	Ongoing	Obligation repeats every six months. On July 31, 2019, NYCHA submitted certification on time but was unable to certify to many items in paragraphs 8 – 15 of the Agreement. See lead paint section of this report.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.H.33(a)	By January 31, 2019, NYCHA will display a sample kit of the supplies needed to complete an RRP work order in all 139 storerooms by January 31, 2019	01/31/19	Complete	Site inspections and inquiry by the Monitor have verified that the Kits were <u>initially</u> delivered by NYCHA and displayed as required under the Agreement. See the 12-18-2019 Exceptions Report (page 9), EHS inspected 51 storerooms and found 39/51 storerooms compliant with all supplies present, and 12/51 storerooms non-complaint with one or more supplies missing.
Exhibit A.H.33(b)	NYCHA will issue a minimum of one kit of RRP supplies to RRP-certified staff daily	02/28/19	Complete	Site inspections and inquiry by the Monitor have verified that the Kits have been delivered by NYCHA and displayed as required under the Agreement.
Exhibit A.H.33(c)	NYCHA will enhance its work order system to automatically create a “dust wipe” work order if an RRP work order is generated by February 28, 2019.	02/28/19	Complete	The required enhancement was performed and was ineffective. NYCHA thereafter initiated a call-in dispatch system to improve the scheduling of timely dust wipes. The Monitor is working with NYCHA to improve this system.
Exhibit A.H.33(d)	NYCHA will select a vendor to supplement the EPA’s RRP training with practical training on dust control measures to simulate a range of working conditions by March 31, 2019 and train substantially all RRP-certified staff by December 31, 2019.	03/31/19 and 12/31/19	Complete	Site inspections and inquiry by the Monitor have verified that the Kits were <u>initially</u> delivered by NYCHA and displayed as required under the Agreement. See the 12-18-2019 Exceptions Report (page 9), EHS inspected 51 storerooms and found 39/51 storerooms compliant with all supplies present, and 12/51 storerooms non-complaint with one or more supplies missing. NYCHA reports that over 90% of the RRP staff has received RRP training, which the Monitor will verify.
Exhibit A.H.33(e)	NYCHA will provide all Resident Building Superintendents, Assistant Resident Building Superintendents, and Property Managers with training in RRP practices on an ongoing basis.		Complete	New NYCHA employees are receive training, which has been verified by the Monitor.
Exhibit A.H.33(f)	NYCHA will train all maintenance workers to perform lead-based paint visual assessments by September 30, 2019.	09/30/19	Complete	NYCHA has complied. In addition, all new NYCHA maintenance employees receive training, which has been verified by the Monitor.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.H. 33(g)	NYCHA will secure additional, dedicated painting contracts for the Healthy Homes Department to exclusively focus on remediation by December 31, 2019.	12/31/19	In Progress	NYCHA asserts that it is securing additional dedicated painting contracts for the Healthy Homes Department and has put a line-item for remediation and painting in new lead abatement contracts. The Monitor will verify this information and monitor the acquisition of painting vendors by NYCHA going forward.

During this reporting period, NYCHA continued its progress in establishing rigorous internal assessments with respect to the degree of its compliance with the Agreement, federal regulations, and city law regarding lead-based paint. In this process NYCHA has become deeply informed about the immense scope of its obligations, the associated challenges in this area, and the likelihood that it will remain noncompliant without broad changes in the way lead-based paint risks are addressed. Though applying adequate resources will be part of the solution, the way NYCHA structures and manages its application of resources will be just as important. Accordingly, as discussed in more depth at the end of this section, NYCHA is currently formulating both short-term and long-term action plans to detail how, and with what resources, it will resolve lead-based paint hazards going forward.

XRF Testing

NYCHA has some 134,000 apartments across its vast network of properties that might contain lead-based paint (“LBP”). NYCHA commenced x-ray fluorescent (“XRF”) testing in these units in April 2019. As of December 26th, approximately 20%, or only about 27,600, of these apartments had been so tested, with about 55% of them found to contain lead-based paint (based on testing results obtained for 20,500 of the units). If the present trend holds, some 74,000 apartments ultimately will be confirmed as containing lead paint in varying concentrations. As NYCHA has observed to the Monitor, “the XRF data is highly useful to NYCHA, as it will enable NYCHA to provide residents and workers specific information on where the LBP is in each individual apartment. This level of information will greatly improve NYCHA’s management of LBP, and ultimately NYCHA’s compliance with the Lead Safe Housing Rule and the EPA Rules.” However, as we observed in our first report, the pace of XRF testing remains far too slow to meet NYCHA’s stated goal of completion by the end of 2020 despite efforts by the lead hazard control unit (“LHC”) to add contractual capacity.

RRP Rule and Clearance Process

As we explained in our prior reports, when renovation, repair, or painting work is done that disturbs a certain amount of lead-based paint, the so-called “RRP Rule” must be respected and lead-safe work practices applied. The requirements of lead-safe work practices are delineated in detailed federal regulations. HUD has voluminous guidelines for the evaluation and control of lead-based paint hazards in housing. In this context, the imperative is ensuring that the condition of lead-based paint is carefully monitored and, when corrective maintenance is required, that any dislodged lead particulate is minimized and contained within a protected work area by using special techniques. These special techniques can include wet sanding, high particulate vacuum cleaners, and proper cleanup, among other methods, all taking place behind plastic barriers. Lead safe work is more expensive than conventional work, but it is a cost that must be borne (as NYCHA does) when working in units and common areas that could contain lead-based paint but where no definitive evidence to the contrary exists.

One of the other extra costs of such work is associated with the “clearance” process required by HUD. Upon the completion of work, clearance is obtained after: a proper cleanup is done, samples of dust remaining in the area are obtained by using “dust wipes,” and a licensed, neutral laboratory tests the content of the wipes and issues a report to NYCHA certifying that the lead content is below the minimum allowed. Only then is it safe for residents to reoccupy the affected space. Dust wipes cannot be taken earlier than one hour after the completion of a proper cleanup. If days pass before clearance is obtained, resident children and pregnant women entering the affected space can be at risk if cleanup was inadequate (and the area must then be recleaned and retested).

Since August, NYCHA’s Compliance Department has issued weekly “dust wipe reports” that closely track the volume of RRP work and the time it takes for performance of dust wipes. According to the dust wipe reports, NYCHA must on average obtain clearances for slightly over 360 units per week (with a high of 530 units one week and a low of 281 units in another). As of now, NYCHA is unable to ensure that next-day clearance is obtained (or even that wipes are taken within 48 hours), and no protection or temporary housing is given to residents before clearance is obtained. NYCHA has tested a method of protecting residents using heavy rosin paper over flooring in former work areas but it has not yet been instituted as standard practice. NYCHA maintains that temporary relocation is simply not feasible.

Though improvements have been made incrementally (such as establishing a real-time telephone dispatch system linking work crews and needed dust wipe technicians), establishing a compliant clearance process remains extremely challenging. Access to units after work crews leave is a problem in many cases. The goal is to ensure that 1) dust wipes are taken on the same day as work cleanup (preferably one or two hours after cleanup); 2) the dust wipes are immediately sent to a lab for analysis; 3) a clearance report is obtained by the next day; and 4) residents receive adequate protection until clearance is obtained.³ Information on clearance attempts produced by NYCHA's Compliance Department and featured in its December "Exceptions Report" (discussed *infra*) is attached hereto at Appendix 3.

The costs associated with obtaining timely clearance will need to be addressed on a continuing basis. Further, as the required annual visual assessments and biennial risk assessments are completed, significantly more RRP work orders will be created (which must be addressed on a timely basis pursuant to applicable regulations). Dust wipe and lab testing capacity will need to be increased as well, partly due to RRP work, but also because of dust samples that must be taken as part of the risk assessment process.

We have asked the Mayor's office to consider lead-based paint a city-wide problem, not just a NYCHA problem. City-wide solutions are needed, such as attracting private-sector laboratories that are able to meet NYCHA's and the City's needs. The City can award long-term contracts or take other measures to enable to process to move forward more efficiently and effectively.

Remediation in Common Areas

NYCHA has identified some 52,000 lead-based paint deficiencies in its common areas (such as stairwells, hallways, and community-use rooms). The remediation work will be complicated by the need to restrict residents from the work area. NYCHA plans to provide accommodations during the day in places such as community centers and obtain same-day clearance, which will enable residents to return to their homes in the evening. NYCHA has preliminarily estimated that it will take four years to remediate the deficiencies. NYCHA has been told that it must do better than that. Though a pilot remediation program underway at the Gowanus Houses will be informative, the common areas project

³ NYCHA believes that longer periods for the delivery of clearance results will be tolerable when no children under six or pregnant women are in the apartments.

will need to be expertly planned and managed, and appropriately funded. The intricacies and cost of such work raise the question of whether NYCHA should use the opportunity to abate the lead-based paint (i.e., remove it once and for all).

The Scope of NYCHA's Lead-Based Paint Obligations

NYCHA is doing a good job of identifying its lead-based paint responsibilities. The scope is staggering. As NYCHA has accurately recognized in the following talking points sent to the Monitor, if a development has lead-based paint in its apartments and/or its common areas, NYCHA must:

- **Provide Accurate Information to Residents:** NYCHA must inform new prospective residents and existing residents about the LBP history for their apartment and development including any updated testing information.
- **Perform Visual Assessments and Remediation:** Every year, in apartments or common areas that may have LBP, NYCHA must perform a visual assessment using HUD methods to identify any deteriorated paint conditions. If NYCHA identifies these conditions, NYCHA must use lead safe work practices to remediate these hazards.
- **Perform Biennial Risk Assessments:** Every two years, NYCHA must have an EPA-certified risk assessor conduct a more thorough review of possible LBP hazards, such as deteriorated paint or dust, at a development, evaluating a representative number of apartments, common areas, grounds, and playgrounds. The risk assessor also must inspect areas where NYCHA either abated or remediated LBP. If hazards are identified, NYCHA must then use lead safe work practices to remediate these hazards.
- **Use Lead Safe Work Practices Whenever Disturbing LBP:** If NYCHA is performing work that disturbs surfaces that may have LBP, it must follow special work practices, which are commonly referred to as RRP. The term "RRP" comes from the EPA Renovation, Repair, and Painting Rule. These procedures require that the work be performed by certified personnel using special dust containment and cleaning protocols to ensure the safety of the residents. At the end of this work, NYCHA must perform a clearance examination to ensure that the work area is safe. The clearance consists of a trained technician performing a visual inspection of the work area and taking a dust wipe sample to make sure there are not unacceptable levels of lead dust.
- **Using Proper Protocols When Performing Abatement:** Abatement is a project that permanently addresses lead paint in an apartment either by removing it

or covering it with a special surface. When NYCHA performs abatement work, it must follow the EPA Rules. These rules require that abatements be performed by certified workers, follow lead safe work practices, have occupant protection plans, and pass a clearance examination. Abatements also require notification to EPA.

- Responding to Elevated Blood Lead Levels Found in Children Under 6 (“CU6”): When NYCHA receives notification that a child under 6 residing at a NYCHA development has a blood lead level above 5 micrograms per deciliter, NYCHA must promptly take specific actions which include notification to HUD, ensuring that an investigation takes place in the apartment where the child resides, performing a risk assessment in common areas leading to that apartment, and addressing any identified hazards through abatement or remediation as required. If hazards are found, NYCHA must also conduct risk assessments of other apartments in the building where children under of the age of 6 reside and remediate any hazards that are identified.
- Recordkeeping: Keeping detailed and complete records of the above-described LBP activities is essential for NYCHA’s compliance with both the EPA Rule and the Lead Safe Housing Rule.

Local Law 1 Obligations

NYCHA also has significant obligations under Local Law 1 of 2004 (“Local Law 1”), which is administered by the New York City Department of Housing Preservation and Development (“HPD”) and the New York City Department of Health and Mental Hygiene (“DOHMH”). As NYCHA has informed the Monitor in the following points, it “intends to leverage its efforts to comply with Local Law 1 to improve its compliance with the federal Lead Safe Housing Rule and the EPA Rules.” The following key obligations of Local Law 1 will be addressed discussed in the Action Plan:

- Annual Notice: Local Law 1 has extensive measures that NYCHA must take to identify children under the age of 6 residing in NYCHA apartments. Under current City law, the term resides covers children under 6 who routinely spend 10 or more hours per week within a dwelling unit.
- Abatement Upon Apartment Turnover: Local Law 1 requires NYCHA to perform abatement before a new resident moves into an apartment.
- HPD Lead-Safe and Lead-Free Exemptions: Before any apartment and/or building can be exempted from the requirements of Local Law 1, HPD must

approve an exemption for the apartment or building following a review of technical data. HPD has two types of exemptions: Lead Safe, meaning the LBP was covered with an approved surface, and Lead-Free, meaning that the apartment tested negative or that any LBP was fully removed from the apartment.

Internal Compliance Oversight

NYCHA's Compliance Department, in conjunction with its Environmental Health and Safety Unit, produces a monthly "Exceptions Report" which identifies LBP compliance issues and makes recommendations to various stakeholders responsible for ameliorating the various deficiencies identified. We have found the Reports to date to be thorough and honest. They are emblematic of a positive culture change at NYCHA and should be welcomed by all stakeholders. For example, the Report issued in December candidly addressed the following key points:

As of December 17, 2019, NYCHA still has as many as 19,888 paint corrections projects that are open based off the 2018 visual assessments, which is more than 50% of the total number of units where paint deficiencies were identified. It is highly unlikely that NYCHA will complete these projects by January 31, 2020.

As of December 13, 2019, NYCHA still must complete 11,031 visual assessments, including 597 visual assessments in CU6 units to meet the annual visual inspection requirement. While NYCHA places heavy emphasis on the number of attempts made to perform visual assessments, it should be noted that only 8% of the units without a visual assessment (918 out of 11,031 units) have been attempted more than one time. Of the remaining CU6 units requiring visual assessments, only 18% (108 out of 597) have received more than one attempt.

NYCHA has not started the required annual 2019 visual assessments in interior common areas. NYCHA will not comply with this requirement in 2019. It is the Compliance Department's understanding that one of the reasons why NYCHA has not started the visual assessments is because NYCHA has also not started the necessary paint corrections of the approximately 52,000 deficiencies in interior common areas identified in 2018 visual assessments. This reasoning will not likely satisfy federal regulators, especially as NYCHA has not promulgated a full-scale plan to

correct these deficiencies. NYCHA is actively working on pilots for common areas in Pink Houses and Gowanus Houses, but these projects will not likely be completed until Q1 2020. Gowanus Houses is scheduled to begin in January 2020.

NYCHA must have certified risk assessors perform a risk assessment reevaluation of properties with lead paint once every two years. The review must include an assessment of prior hazard reduction activities, as well as an assessment of paint, dust, and soil. Any deficiencies identified in this risk assessment must be corrected using interim controls or abatement. NYCHA needs to perform these risk assessments in an estimated 277 developments. The HUD Agreement requires these reevaluations must be conducted by January 31, 2021.

NYCHA has not yet started performing the biennial risk assessments. In November, LHC worked with Procurement to issue a solicitation for performance of the biennial risk assessments. According to LHC and Procurement, the biennial risk assessments bid will open on December 24th. After bid opening, NYCHA will need to undergo the bid review, award, and contracting process.

NYCHA will need an aggressive procurement and project implementation schedule to meet the January 31, 2021 deadline. Assuming an 11-month project schedule, NYCHA will need to complete risk assessments of at least 25 full developments per month. This project has significant schedule risks that need to be closely tracked and monitored by the Chair's Office and GM's Office.

EBLL Reports

This quarter, NYCHA reported to HUD twenty-one new cases of resident children under six with elevated blood lead levels.

Action Plans

NYCHA submitted a preliminary draft of a phase one action plan on December 23rd. It identifies many action items that NYCHA will need to particularize, schedule, and implement to achieve compliance with most requirements of the Agreement (except for its provisions regarding abatement, which will be addressed in a phase two action plan).

To date, thirteen projects are being discussed. Though some projects have already been advanced significantly, such as the lead safe housing standard procedure, others are still in planning stages, such as addressing LBP deficiencies in common areas. The adequacy of approach, resources, and scheduling remains to be determined in many important areas. NYCHA has outlined or begun efforts and programs to:

- Implement an Enhanced Ongoing Management Plan (EOMP) for Units with a Child Younger Than Six Years Old in Developments with Lead-Based Paint: NYCHA will establish a new unit within the Department of Management and Planning that is dedicated to comprehensively managing an enhanced outreach, education, inspection, and remediation program in apartments where a child younger than six years old resides (if the apartment is in a development with known or presumed lead-based paint).
- Identify Children Younger Than Six Years Old in All NYCHA Apartments: NYCHA will initiate a new program built around the Local Law 1 annual survey and direct resident follow-up process to identify the units where children under six reside and regularly visit.
- Create a Comprehensive Lead Safe Housing Standard Procedure: NYCHA has written a comprehensive manual (incorporating detailed comments from HUD, SDNY and the Monitor) for lead safe housing procedures.
- Implement a Lead Compliance Assurance Plan: NYCHA has instituted a field oversight program to do real time inspections of RRP and abatement work to ensure adherence to regulations.
- Enhance Information Technology Functions to Support Lead-Based Paint Compliance: NYCHA is enhancing the data fields and templates in its Maximo system and handheld devices to improve record keeping and conformance to regulatory requirements in RRP and abatement work (as well as incorporating newly gained data through current XRF testing regarding components that have been positively identified as containing lead-based paint).
- Implement Performance-Related Standards Through Clearance Examinations: NYCHA is continuing to refine and improve its clearance process by using real time dispatching of dust wipe technicians and increasing lab testing capacity through contracts.

- Address Lead-Based Paint in Building Interior Common Areas: NYCHA is developing a complex plan to address over 52,000 lead-based paint deficiencies in common areas throughout its system (while ensuring adequate resident protection and minimal resident impact).
- Conduct a Biennial Risk Assessment: Pursuant to Paragraph 18 of Exhibit A of the HUD Agreement, "Within two years of the execution of this Agreement, NYCHA shall conduct risk assessment reevaluations of all NYCHA housing that contains lead-based paint in accordance with 24 C.F.R. § 35.1355." Risk assessments must be performed by certified risk assessors and entail a review of existing information about the development and an onsite assessment of paint conditions, prior hazard reduction activities such as abatement or remediation, dust, bare soil, and exterior and interior common areas. This project will entail risk assessment reevaluations at an estimated 277 developments. If hazards are identified, NYCHA will need to conduct interim controls or abatement of the hazards within the timeframes specified in the Lead Safe Housing Rule.
- Provide Lead Training for Employees: NYCHA will continually ensure adequate training for employees regarding lead-safe work practices.
- Implement Methods to Comply with the Lead Disclosure Rule: The Lead Disclosure Rule (24 CFR Part 35, Subpart A) ensures that NYCHA discloses possible or known lead hazards to prospective residents prior to signing their lease or transferring to a new unit, and ensures that existing tenants learn about any updates to the LBP status of their apartment upon annual recertification. The HUD Agreement requires that NYCHA have the necessary records available to prospective or current residents both online and in paper format. This action will achieve compliance with this requirement through a combination of IT enhancements, training, and ongoing monitoring.
- Implement a RAD Lead Compliance Monitoring Program and Assessment of Capital Contract Specifications: This program will bring various methods of direct oversight by NYCHA to ensure that developers strictly adhere to lead-based paint regulatory requirements in performing RRP and abatement work.

- Complete the New York City Department of Housing Preservation and Development Exemption Process for All Developments: This program will process well-documented applications to HPD to exempt eligible lead-free units from the City’s record of units containing lead-based paint.
- Create a Vendor Portal for Lead-Based Paint Recordkeeping: This program will create a portal for vendor information relating to ensuring that all vendor employees performing RRP and abatement work possess required EPA certifications that are current and are properly checked-in at developments before doing such work.

Discussion of these action items is ongoing. For any action plan to be approved it must adequately explain the goal of each action item and detail how and when an action item is to be implemented, among other things. NYCHA must also ensure that various functions within its organization are appropriately identified as stakeholders and are working together constructively to achieve the stated goals.

NYCHA had not submitted an approvable phase one action plan by January 31, 2020. A significant part of the problem appears to be a lack of sophistication in long-term planning.⁴

In the very near future, NYCHA might consider getting an expert (or firm) to help it with short- and long-term planning using the “critical path method.” This would benefit NYCHA in the lead-based paint context as well as in other areas requiring action plans which also have complex, inter-related planning needs.

Further, the silos among NYCHA functions continue to be problematic and the assignment of timely deliverables and ownership (even within functions) is still deficient. For lead-based paint issues, ownership of timely deliverables is broadly assigned to functions (e.g., Lead Hazard Control, or Management and Planning, Procurement and HR) but the individuals responsible for specific tasks are not always clearly identified.

⁴ NYCHA will very soon be required to prepare a phase two lead-based paint action plan addressing its gargantuan and very complex abatement obligations pursuant to Paragraphs 8-14 of Exhibit A to the Agreement. Best practices in planning will have to be applied in order to efficiently use resources, protect residents, and meet deadlines.

NYCHA will need to identify individuals performing each function who depend on another individual’s timely performance. Appropriate work groups will then be either self-evident or will be easily assembled. NYCHA’s leadership subsequently can develop an appropriate methodology and identify people who can hold others accountable. The Risk Advisory Council set up for the Chair and General Manager is a start but must be supplemented with other methods for NYCHA to achieve timely compliance with the Agreement.

MOLD

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.B. 19	NYCHA will not close any mold, flood, or “leak from above” work orders as “Resident Not Home,” including any such work orders that NYCHA has not yet verified.	01/31/19	Complete	NYCHA implemented required changes. The Monitor has verified compliance. Although work orders are not being closed as “Resident Not Home”, Stout’s Q22 report found there were 28,493 (25% of the total work orders considered) classified as Unfounded (2,368), Closed with No Work Done (23,832) or Cancelled (2,293).

The reporting period saw some incremental improvement in certain areas of NYCHA’s mold remediation efforts. The improvements were most frequently found when mold work orders were addressed by specially-trained NYCHA personnel who adhered to NYCHA’s Standard Operating Procedure (developed in response to the Baez federal case). The training, part of the “Mold Busters” program, is a standardized training program that has now been given to all relevant development employees (such as superintendents, assistant superintendents, and maintenance persons) to learn how to effectively assess and remediate mold, in part by using sophisticated instruments to measure moisture content and air flow and to create an effective remediation plan based on a standardized initial inspection and resulting data and observations. There was also some progress in addressing the backlog of past due work orders. However, the fundamental question of how NYCHA will apply adequate resources and methods to comply with the Agreement and the Baez Consent Decree remains unanswered.

The Monitor's office engaged in intensive discussions with NYCHA counterparts (most often from NYCHA's Office of Mold Assessment and Remediation) throughout the quarter intended to culminate in the submission by NYCHA of a mold action plan pursuant to Paragraph 35 of the Agreement. The first such plan will be limited to compliance with Paragraphs 17-20 of Exhibit B to the Agreement and is close to completion. A second phase plan will cover Paragraph 15 obligations. The plans are currently in development.

Since the beginning of the process, the Monitor's office has emphasized the importance of NYCHA's ventilation cleaning and roof fan upgrade project, applying adequate resources in key positions such as maintenance persons and plumbers, using automation and best practices to schedule remediation work, and engaging with residents to work together to mitigate mold risks.

Agreement Paragraph 17 Obligations

A successful phase one mold action plan – most importantly – must state the means that NYCHA will bring to bear, and the associated schedule, to conform with Exhibit B, Paragraph 17 of the Agreement ("Paragraph 17"), which appears uncomplicated on its face:

By January 31, 2021:

- a. For 95% of instances in which a resident reports a mold complaint that is subsequently verified or NYCHA identifies mold in a unit, consistent with the NYCHA Standard Procedure SP 040:14:1, Mold/Mildew Control in NYCHA Residential Buildings, Revised December 19, 2018, within five business days of the resident reporting or NYCHA identifying mold in the unit, NYCHA shall prepare and provide a written plan for addressing the root cause to the resident. NYCHA may meet this standard by mailing a copy of the written plan to the resident via U.S. or electronic mail within the five-day period.
- b. For 95% of instances in which a resident reports a mold complaint that is subsequently verified or NYCHA identifies mold in a unit, consistent with the NYCHA Standard Procedure SP 040:14:1, Mold/Mildew Control in NYCHA Residential Buildings, Revised December 19, 2018, within five business days of the resident reporting or NYCHA identifying mold in the unit, NYCHA shall remove mold that is visible from within the unit. In the alternative, NYCHA may comply with this standard by remediating the mold and its underlying root cause (i) within 7 days, for repairs that can be performed by a Maintenance Worker or Caretaker, or (ii) within 15 days, for

repairs that must be performed by skilled trade workers or other specialized staff in one or more visits.

c. For 95% of reports to NYCHA of floods, leaks from above, and other conditions that cause sustained or recurrent moisture to flow into a resident's unit or the walls of the unit, NYCHA shall abate the condition within 24 hours of a report of the condition to NYCHA, and NYCHA shall remove any standing water that resulted from such condition within 48 hours of the report.

We stated in our last report that NYCHA "must, among other short-term steps, hire more personnel to work as maintenance people and skilled trades people – most importantly plumbers – and improve the process of scheduling repair work." These steps have not been taken. What is more, despite the well-supported, precise requests for such personnel created by its office of mold assessment and remediation, it is apparent that NYCHA – citing resource constraints – does not want to hire such workers in anywhere near sufficient quantity.

We also reported information learned from the Quarter 21 Report of the Independent Data Analyst ("IDA") in the Baez matter (Neil Steinkamp), that there were 100,760 mold or leak-related work orders in May, June and July 2019, of which some 40,859 were closed in the quarter and another 29,987 were excluded as unfounded, closed with no work done, or cancelled, or considered in a 5% outlier metric. Some 29,914 remained open at the close of that quarter (emphasis added).

In his Q22 report, which covers August, September and October 2019, the IDA reported, among other matters:

There were 112,611 total work orders considered in the Baez compliance analysis in Quarter 22, of which 48,400 (43%) were remediated during the quarter and 35,718 (32%) remained open as of October 31, 2019 [emphasis added]. Of the work orders remaining open at the end of the quarter that were already past their compliance period (31,037), 66% (20,465) were created prior to the quarter and remained open at the end of the quarter. There were 28,493 (25% of the total work orders considered) that were excluded from this analysis for being classified as Unfounded (2,368), Closed with No Work Done (23,832) or Cancelled (2,293).

Significant effort continues to be required to:

- Reduce the number of work orders remaining at the end of the reporting period;
- Identify and reduce the number of work orders improperly classified and closed as Unfounded, Closed with No Work Done, or Canceled; and

- Reduce the time required to remediate leak, excess moisture and mold work orders.

The IDA also reported that:

For Mold Busters work orders opened in Quarter 22 in the original 10 consolidations using the Mold Busters protocol (which have been using the protocol for at least one year), only 7.7% of them represented a recurrence of a prior Mold Busters work order in the last twelve months in the same apartment and room. This low recurrence rate is a promising sign that the Mold Busters 2.0 standard procedure for mold remediation is effectively addressing the root cause of the reported mold. When including Mold Busters work orders classified as Unfounded and Awaiting Initial Inspection, the recurrence rate is 20.6% over a twelve-month period. This is balanced by data that shows that in Quarter 22 18.3% of Mold Busters Quality Assurance (QA) inspections failed the inspection and in a post-work survey conducted by NYCHA nearly 20% of residents reported that mold had recurred after a Mold Busters inspection and remediation (consistent with the Founded and Unfounded metric calculated from Mold Busters work orders created in Q22 in the original ten Mold Busters 2.0 consolidations). The resident reported and work order-based measures of recurrence are still significantly less than recurrence of pre-Mold Busters work orders. However, additional work is required to identify the reasons for recurrence and ways in which it can be reduced.

The objective, data-driven findings in the IDA's reports show that though the "Mold Busters" program does bring benefits, NYCHA must do a great deal more to meet its obligations in the Agreement and in the Baez Consent Decree. The slow pace of progress – and inaction in response to the clearly urgent needs we identified in our last report, such as adding human resources – is highly problematic.⁵

NYCHA has only about one year remaining to become compliant with Paragraph 17. When NYCHA (and the City) signed the Agreement on January 31, 2019, they promised, not just to HUD and SDNY but ultimately and most importantly to NYCHA's residents, that things would be made better. From the start of our discussions regarding the phase one action plan, our expectations have been clearly stated and plain regarding NYCHA:

⁵ As an additional and necessary means of addressing the problem, we recommend that the authority of the "ombudsperson" appointed in the Baez matter on a pilot basis be expanded system-wide as soon as is feasible.

1. Adding sufficient maintenance and skilled trades staff (based on objective calculations) to be able to meet applicable deadlines for inspection and remediation;
2. Developing and uniformly implementing a system for effective sequencing and timely dispatching of skilled trades workers;
3. Improving and documenting timely communication by field staff regarding inability to meet deadlines (and establishing clear goals and standards for management communication and performance in this area);
4. Maximizing funding for the ventilation/roof fan project to enable faster and broader implementation; and
5. Improving resident engagement and resident awareness regarding mold/mildew prevention.

When NYCHA submits a proposed plan that clearly states the means to satisfy these expectations and achieve timely compliance, it will be approved. Implementation will then be closely tracked to ensure that it is working. To that end, we have recommended that NYCHA create a “mold dashboard” for its public website – similar to what has been done in the context of lead-based paint to track XRF testing progress – so that residents and concerned citizens can see for themselves key statistics regarding NYCHA’s mold remediation efforts.

HEAT AND HOT WATER

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.A.3	Within 90 days of the Effective Date of this Agreement, for those developments which are already furnished with electronic temperature reading devices, NYCHA will institute and maintain a system that identifies all apartments in which such devices indicate a violation of the City Code heating requirements and identifies the inside and outside temperatures associated with such violation.	05/01/19	Complete/ Ongoing	NYCHA has implemented a system to monitor all developments and electric temperature devices that are currently in operation. The Monitor has verified that the system is operating. Verification by the Monitor will be ongoing as new installations are completed.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.A.4	This information will be available to all NYCHA personnel responsible for heating and to all development managers		In Progress	NYCHA's monitoring system is online and accessible on NYCHA's internal servers on the NYCHA website, however only a portion of the data is currently being displayed. The Monitor is working with NYCHA to rectify this situation to ensure that all of the available data is on the website. The Monitor will also continue verifying that information sharing protocols are complete and are being complied with by NYCHA.
Exhibit B.A.5	This information will be fully available to the Monitor, HUD, and SDNY.		In progress	As indicated, while the data from the electronic temperature devices is available on NYCHA's website, the data displayed to date is partial.
Exhibit B.A. 6	An appropriate mechanism for disclosing this information to the public shall be provided in an Action Plan.	10/01/19	Ongoing	NYCHA has included how the information will be disclosed to the public in the heat action plan. As stated above, NYCHA has also started to include the information on their public website in the transparency section.
Exhibit B.A. 8	By October 1, 2019 NYCHA shall establish an Action Plan that identifies, for each development, how NYCHA will respond to heating outages, taking into account resident populations, historical data about prior outages, the availability of on-site and remote maintenance personnel, and response times. The plan shall include provisions for alternative heated community spaces for heating outages that are expected to last for a substantial duration. The plan shall also address NYCHA's policies for closing out work orders when the resident is not available at home or otherwise does not provide access to his or her apartment to resolve a heating outage. The plan shall be made available to the residents and posted online.	10/01/19	Complete	Monitor approved NYCHA's Heat Action Plan on December 5, 2019, which also included Action Plans for the 20 developments with the worst performing heating systems. In late December, NYCHA provided the Monitor with Action Plans for 50 additional developments. In mid-January, NYCHA provided the Monitor with Action Plans for an additional 100 developments.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.A. 14(a)	By March 31, 2019, NYCHA will create a 24/7 Heat Desk which monitor heating metrics and dispatch staff to correct deficiencies during Heat Season.	03/31/19	Complete	24/7 Heat Desk has been timely instituted by NYCHA, which has been verified by the Monitor. The Monitor is working with NYCHA's Heat and IT departments to ensure the accuracy and completeness of the information going forward.
Exhibit B.A. 14(b)	NYCHA will modernize the Building Management System at 44 developments by December 31, 2019. Modernization will include introducing indoor temperature sensors.	12/31/19	In Progress	NYCHA has reported to the Monitor that they are currently modernizing their BMS systems at 50 developments, many of which are near completion. The Monitor will verify these installations.
Exhibit B.A.iii. 9(a)	Consistent with the previously stated heat goals of the Agreement, NYCHA will restore heat to units affected by a heating shortage within an average 12 hours.	10/1/2019	Ongoing	Based on Maximo data which has been analyzed by the Monitor, the average length of heat outages to date for the current heat season is less than 12 hours.
Exhibit B.A.iii. 9(b)	During the Heating Season, for 85% of heating shortfalls, NYCHA will restore heat to affected units within 24 hours, and in no event more than 48 hours. NYCHA may restore heat through the use of temporary replacement heating systems that comply with N.Y.C. Admin. Code.	10/1/2019	In progress	NYCHA has been focusing on reducing full building heat outages rather than individual unit heat shortfalls. The Monitor is working to better analyze Maximo data regarding heat shortfalls especially regarding their lengths and causes. Once the shortfall data is better understood, the Monitor will be working with NYCHA to ensure that these repairs are being made more timely and effectively.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.A.iii.9(c)	In any event in which heat is unable to be restored to a particular unit within 12 hours, appropriate NYCHA personnel distinct from the NYCHA personnel responsible for heat restoration as identified in the heat Action Plan shall undertake an investigation to determine the root cause(s) of such initial failure of the heating system and the failure to achieve the restoration service within the timeframe, identifying corrections to prevent or lessen the recurrence of such failures and track the implementation of such corrective actions. Such information shall be retained in a central repository to which all applicable maintenance staff and management have access.	10/1/2019	Ongoing	NYCHA's Environmental Health & Safety unit, using its own heat SME's, has been conducting heating failure root cause investigations for all since the beginning of the current heating season. The E H&S unit will complete these investigations for all outages greater than 12 hours and will work with the Monitor at the end of the heating season to draft the summary report. The Monitor has and will continue to review the results of these investigations.

The Agreement directs NYCHA to make measurable improvements to its heating systems and to develop a heat action plan by October 1, 2019, subject to the Monitor’s approval. The purpose of the action plan is to provide a strategy to reduce both the number and length of heat outages and to manage them more effectively and expeditiously when they do occur.

The Monitor team worked closely with NYCHA staff to review and revise the proposed action plan. On December 5, 2019, the Monitor approved NYCHA’s plan, which also included individual heat action plans for those developments with the worst-performing heat systems. In late December, NYCHA submitted an additional 50 development heat action plans. These plans are available on both the Monitor and NYCHA websites.

The heat action plan begins with proscribing all the elements needed for NYCHA to conduct a thorough pre-season boiler maintenance program. Comprehensive pre-season maintenance will hopefully reduce the number of heat outages once the season starts. The plan also lays out how, when outages do occur, NYCHA can best identify the cause of the outage and implement rapid repairs, detailing the necessary staffing, tools, and parts.

During lengthy outages, the action plan provides for the assembling of a heating “situation room” comprised of all the key departments within NYCHA that will mobilize to both fix the breakdown and assist residents. The plan’s communication structures are essential. NYCHA has already begun the process of ensuring that everyone, from the Chair’s Office to the caretakers at the developments, knows the main protocols of the heat action plan, particularly as it applies to them.

We have seen that given NYCHA’s size, a big contributing factor to lengthy heat outages is poor communications between and among staff. For example, in early December a boiler at a development had to be shut down because of a gas leak in the boiler room. Fortunately, one of the Monitor team’s field examiners was monitoring activities at that development near the time the leak was first discovered and verified that the development staff person made the notification to his superiors. However, because the heat department was not also immediately notified, there was an unnecessary delay of an hour or two to get the boiler back in operation. That experience highlighted the necessity that, when there is a circumstance that might affect a heat system, the heat department must be included in the initial notification process for a more effective response.

The action plan also includes measures to make sure that residents know what they should do to report outages so that NYCHA’s responses are faster and more effective. The plan requires staff to hold meetings at the developments with local residents so that everyone understands the process.

When outages cannot be resolved quickly even with better coordination, the action plan calls for alternative heated community spaces to be opened. These heated spaces must be available to residents affected by heat outages that are expected to last for a substantial duration of time. NYCHA will be required to provide shuttle services to transport the residents to these warming centers.

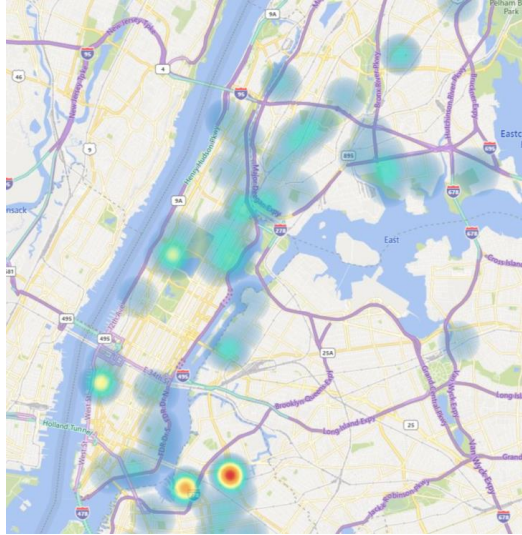
This part of the action plan comes with its own obstacles, as many NYCHA community centers are currently unable to serve as heating centers. Monitor team investigators have interviewed staff at 14 community centers designated as alternative heat spaces by NYCHA for the 20 developments with the worst heating systems. Of those, several had no heat themselves and most had not been informed by NYCHA that they are to serve as alternative centers. We are continuing to examine this issue and will work with NYCHA to ensure that the designated centers are in fact equipped to assist residents in the event of a prolonged heat outage.

The Agreement and the heat action plan also require NYCHA to conduct root-cause investigations for heat outages lasting more than 12 hours with the purpose of learning how to better prevent or at least mitigate them in the future. NYCHA's newly created Environmental Health and Safety unit, as described above, is currently responsible for these investigations. The Monitor team has been and is exercising its oversight to ensure that NYCHA's root-cause investigations are thorough and complete. From what we have seen so far, their investigations have provided unbiased critiques independent from the heating department. They have called for smarter mobilization of heating staff during nighttime hours and better preparation during the summer, consistent with our own findings. Utilization of our findings will give NYCHA an even better understanding of what heating systems need replacement and how to better focus the pre-season maintenance program for next winter.

The Monitor testified before the New York City Council on January 15, 2020, about the heat action plan and NYCHA's progress in meeting its Agreement obligations as they relate to winter preparedness. A copy of the written testimony submitted by the Monitor in advance of the hearing is attached at Appendix 4. As the Monitor noted in his testimony, going forward the Monitor team will oversee NYCHA's compliance with the procedures set out in the action plan, ensure that NYCHA is accurately reporting its heat outages, and help NYCHA learn what can be done to better avoid them in the future.

Heating Outage Data Analysis

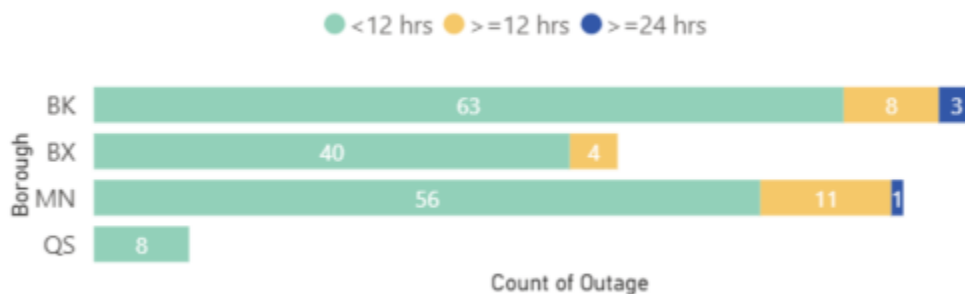
We are working closely with NYCHA to bring an analytical approach to its management of heating outages. In the past quarter, the Monitor team worked with NYCHA to utilize NYCHA's own data and to develop an Unplanned Heat Outage Report that documents all unplanned outages from October 15 to December 31, 2019. The report includes total outage counts, developments affected, average duration of response time, total duration of hours per development, and worst-performing developments for this heating season. The report also contains a heat map that demonstrates the most frequently affected locations, which will help NYCHA identify trouble spots. A sample heat map for Manhattan is shown below.



Heat Map Sample #1: Manhattan Outage Reports

We have included some of our preliminary findings in this report. *Table 1* (below) provides a snapshot view of outages by borough. For example, Manhattan has had 56 outages that have lasted under 12 hours, 11 outages that have lasted for over 12 hours, and 1 outage that has lasted over 24 hours. We are working with NYCHA to review outages over 12 hours in order to help remediate these issues moving forward.

Count of Outage by Borough and Outage Duration Group



Count of Outage by Borough and Probable Cause

Table 1: Outage of Borough and Outage Duration Time

The above table illustrates outages reported in Maximo as of December 11th. The following abbreviations correspond to each borough:
 BK – Brooklyn
 BX – Bronx
 MN – Manhattan
 QS – Queens & Staten Island
 *Note: Maximo combines both Queens and Staten Island into one subcategory. The Monitor team is currently working on splitting the data sets for future reports.

Table 2 (below) depicts mobilization times throughout all boroughs. As the data illustrates, NYCHA’s average response time to resident complaints in the Bronx is 1.9 hours post call to the heat desk, while in Manhattan NYCHA’s average response time to complaints is over five hours. The Monitor believes that by strategically mobilizing NYCHA’s crews, the organization would see a dramatic decrease in response times.

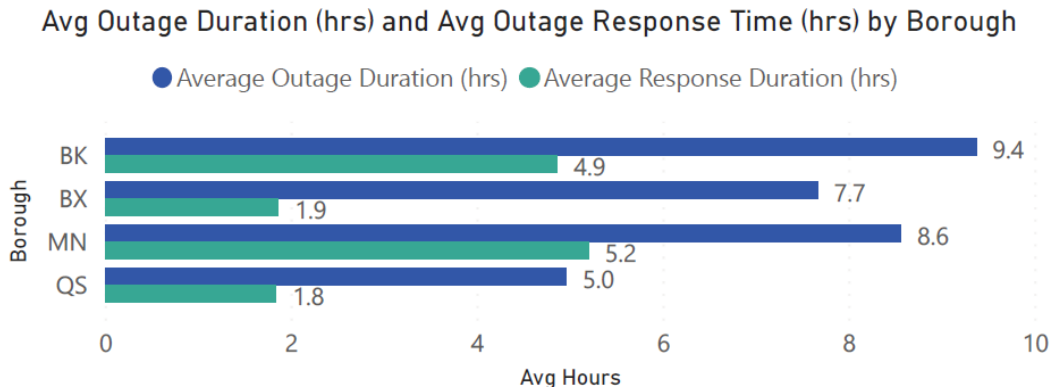
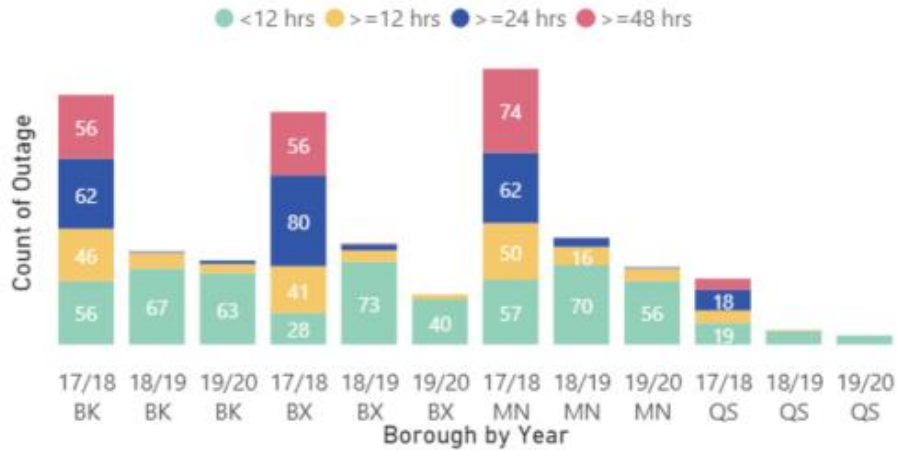


Table 2: Average Outage Responses Time

Coordinating with NYCHA, we have been able to obtain outage information from the past two heating seasons in order to identify trends that help us document and display NYCHA’s progress. The data indicates that NYCHA is demonstrating minor improvement in outage counts in Manhattan, the Bronx and Queens from previous heating seasons while demonstrating little to no improvement in Brooklyn. It must be noted that this is a preliminary analysis of untested data and outage times that needs to be verified in the field. Additionally, NYCHA data dating back to the 2017-2018 has been deemed unreliable as the systems and processes for data input were not designed to produce information of a sufficient quality standard for inclusion. Going forward, our review will look closer to determine a baseline using 2018-2019 and 2019-2020 heating data to track and report on progress throughout the monitorship.

Count of Outage by Heating Season, Borough and Outage Duration Group



Count of Outage by Heating Season, Borough and Probable Cause

Table 3: Outages Oct 2019 – Dec 2019 Heating Season

Avg Outage Duration (hrs) and Avg Outage Response (hrs) by Borough by Year

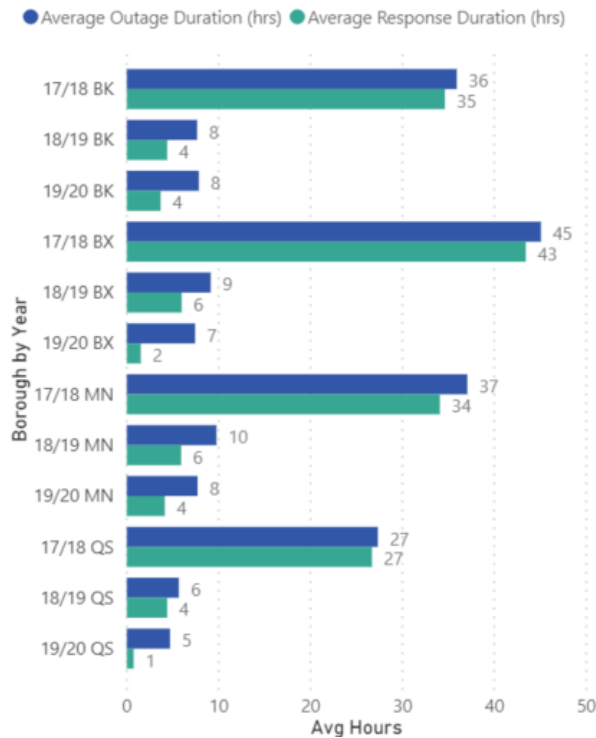


Table 4: Average Response Time (October 2017 – 2020)

The data does show an improvement in outage response times and duration times from the 2018-2019 to 2019-2020 heating season. The Monitor will work with and press NYCHA to achieve reduced response and duration times. In our view, it should not take more than one hour to respond to a tenant call if NYCHA has efficiently placed its field

staff in strategic, high-outage prone locations and if NYCHA increases the number of staff in its Emergency Response team during evening and night hours.

As of December 31, 2019, the Monitor is tracking and reviewing a total of 194 outages that have affected 79 developments through the portfolio. The Monitor is closely reviewing these findings and will begin conducting specialized site inspections throughout all boroughs to confirm the validity of the data displayed throughout this section. We will continue to track outages and work with NYCHA to help boost its performance.

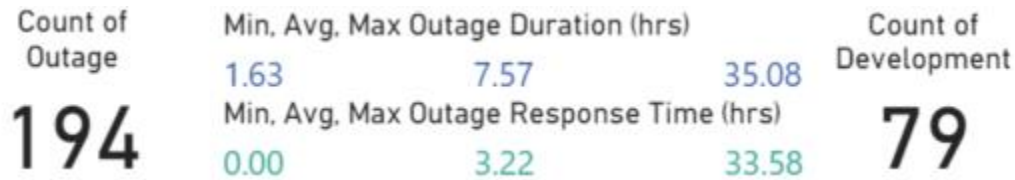


Table 5: 2019-2020 Heating Season Summary

ELEVATORS

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.C.21	Within 120 days of the Effective Date, NYCHA shall establish an Action Plan that identifies, for each building that contains an elevator designed for resident use, how NYCHA will respond when all elevators are out of service at that building (a “no-service” condition). Such plan shall take into account the resident population of each building, any individuals with self-reported mobility impairments, historical data about prior outages or service disruptions, the availability of personnel to assist residents, the terms of any elevator support contract, and historical response and repair times. Such plans shall be made available to the residents and posted online.	05/31/19	Complete	The elevator Action Plan was approved by the Monitor on January 30, 2020.

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.C.22	Within 120 days of the Effective Date, NYCHA shall provide HUD and the Monitor with sufficient data to identify elevator service interruptions in the prior three years. This data shall be updated at least quarterly.	05/31/19	In Progress	Some data has been supplied by NYCHA, but a full dataset is outstanding, as historical outage data is incomplete or inaccurate in many cases. Quarterly update has not yet occurred. This will be an ongoing obligation.
Exhibit B.C.30	Within six months of the Effective Date, NYCHA will institute and maintain a system that identifies every elevator outage and the start and end times of such outages identified by remote monitoring systems, work-order records, or any additional sources of outage information, and make that system accessible and available to all NYCHA personnel responsible for elevators and to other relevant personnel, including all development managers and the General Manager.	08/01/19	In Progress	Elevator outages are inputted into Maximo. Outage notifications are made via email to all responsible personnel every two hours. A formal outage dashboard similar to what NYCHA has in place for heating outages is currently being created but has yet to be completed or implemented. These protocols are part of the recently completed elevator Action Plan. The Monitor will verify that protocols are being followed going forward.
Exhibit B.C.32	Within six months of the Effective Date, NYCHA will establish a system to provide residents of buildings affected by a planned outage 24-hours advanced notice, and to provide residents of buildings affected by an unplanned outage notice within two hours of NYCHA learning of the outage. Such notice shall include instructions regarding what assistance NYCHA has available for individuals with mobility impairments during the outage. Notice shall occur by robocall and via postings within the affected building and on NYCHA's website.	08/01/19	Completed	NYCHA has instituted Robocalls, posts via NYCHA website, push notifications via its application and provides notices in common areas. Additional protocols of the recently completed elevator Action Plan. The Monitor team has verified NYCHA's compliance with the posting protocols and is in the process of verifying their effectiveness with residents. Ongoing verification by the Monitor is taking place as these communication protocols are implemented.
Exhibit B.C.33	NYCHA will provide the Monitor 24 hours advanced notice of any planned outage, and shall notify the Monitor of any unplanned outage within two hours of NYCHA learning of the outage. Notice shall occur in the method prescribed by the Monitor.		Ongoing	The Monitor has been receiving elevator outage notifications every few hours from NYCHA on a daily basis for the last several months. We will be working with NYCHA to ensure that these notifications contain all necessary information.

As with all the other major systems in NYCHA buildings, the working condition of elevators significantly impacts the daily lives of residents, especially the elderly, young children and

others with mobility concerns and/or challenges. The Agreement requires that NYCHA submit and put into practice an elevator action plan that identifies, for each development, how NYCHA will respond to elevator outages, taking into account resident populations, historical data about prior outages, the availability of on-site and remote maintenance personnel, and response times. The plan also must include provisions for alternative means and methods of vertical transportation due to elevator outages that are expected to last for a substantial duration.

As we previously reported, NYCHA first issued an elevator action plan to the Monitor on May 31, 2019. The Monitor determined that the submitted plan was more of a mission statement for the NYCHA elevators service and repair team and did not contain sufficiently detailed steps for implementation. The Monitor team has continued to work with NYCHA to develop a more comprehensive action plan by leveraging the Monitor team's subject matter expertise with NYCHA's elevator service and repair team.

We worked with NYCHA to ensure that the finalized action plan contained detailed information about, among other things: existing equipment and spare parts, resident population, data about prior outages, availability of maintenance personnel, alternative means of vertical transportation, etc. On January 30, 2020, the Monitor accepted NYCHA's elevator action plan. A complete copy of the plan is available on the Monitor website at the following link: <https://nychamonitor.com/wp-content/uploads/2020/01/Elevator-Action-Plan-FINAL.pdf>.

Elevator Data Analysis

As discussed in the previous report, it is imperative that NYCHA establish comprehensive and reliable metrics so that its performance can be accurately measured and verified. We are continuing to find that NYHCA's data is often incomplete, imprecise, and/or inaccessible, creating an inaccurate picture of NYCHA's performance. We will continue to monitor NYCHA to ensure data validity is present throughout all systems. As many items within the agreement are performance based, the Monitor has begun creating metric reports that will not only capture NYCHA's current performance, but will also help report to the public if the organization is meeting its objectives. These performance reports will tabulate all items in the Agreement and provide a visual representation of NYCHA's performance with respect to its obligations under the Agreement. The creation and implementation of these performance metric reports are ongoing.

NYCHA maintains that outages are most often caused by

- i) equipment failure,
- ii) power outages to the building,
- iii) water intrusions in the building which disables the elevator(s),
- iv) scheduled preventive/corrective maintenance, and
- v) vandalism.

The time length of outages usually depends on the:

- complexity of the repair,
- availability of repair staff, and/or
- availability of replacement parts.

NYCHA assesses its elevator service performance by the number and duration of its elevator outages. In 2018, NYCHA data indicates that each of its elevators was out of service an average of 1.13 times per month, with the service outages lasting an average of just over 12 hours before the elevators successfully resumed operation. It is important to note that the validity of this data cannot be verified by the Monitor and, as we discussed in our first report, there has been conflicting information given by NYCHA as to how they previously calculated the time length of an elevator outage.

The NYCHA Elevator Division also submitted data outlining the number of elevator outages/interruptions over the last three years. The data totaled roughly 128,000 outages during this timeframe. Unfortunately, the cause of each outage cannot be identified accurately because at the time NYCHA used only three failure codes as descriptors and these were imprecise. According to the NYCHA elevator group, NYCHA reworked this system in May 2019 to identify the exact outage cause(s), and NYCHA intends to leverage this information to better understand current and future needs when servicing specific elevators. The Monitor is currently in the process of reviewing the prior six months of available data in Maximo, to verify both the validity of the data and improvements in reporting. Results will be disseminated once completed.

PEST AND WASTE MANAGEMENT

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.D.35	Within six months of the Effective Date, the Monitor in consultation with NYCHA shall establish reasonable protocols by which Integrated Pest Management (“IPM”) professionals shall develop and provide reliable estimates, at least quarterly, of the pest populations in each NYCHA development. NYCHA shall promptly publish these figures, by development and pest type, on its website.	08/01/19	Complete	The Monitor and NYCHA timely drafted and submitted the protocols to SDNY and HUD, which were ultimately approved. NYCHA has selected 20 inspectors. On December 5, 8 and 9, the Monitor’s pest expert trained the NYCHA inspectors on how to index pests. NYCHA pest infestation indexing begins February 3, 2020. The quarterly reporting by NYCHA is scheduled to begin after the indexing is complete.
Exhibit B.D.41	Within six months of the Effective Date, NYCHA shall, for any unit that has more than one pest infestation complaint verified by NYCHA staff within twelve months (a) cause a professional using IPM techniques to evaluate the unit and its immediately adjacent units and common areas within 30 days to identify any circumstances specific to that unit that may have contributed to such recurrence (including, but not limited to, unaddressed leaks, proximately located trash, or holes in walls), and (b) address, consistent with IPM principles, any such circumstances within the following 30 days.	08/01/19	In Progress First Targeted Relief requirement completed.	NYCHA still has not met this requirement. NYCHA has completed the First Pest Targeted Relief Requirement of 2,645 residential units with a verified open pest work order plus at least one additional pest work order since January 31, 2018. NYCHA has proposed an Action Plan for the Second Pest Targeted Relief Requirement of approximately 5,000 residential units with at least two verified pest work orders since July 31, 2018. Additionally, NYCHA is developing an Action Plan to address all impacted adjacent units and associated common areas. NYCHA proposed that the requirements of the Paragraph will be complete by mid-May, 2020.
Exhibit B.D.45	Within six months of the Effective Date, NYCHA shall, no less than once every 24 hours, inspect the grounds and common areas of each building for cleaning and maintenance needs, including pests and trash, and correct such conditions. In particular, NYCHA shall ensure that trash on the grounds or common areas of each NYCHA building is collected and either removed from the premises or stored in a manner that prevents access by pests at least once every 24 hours.	08/01/19	Not Completed In progress	NYCHA still has not met this requirement. NYCHA and the Monitor are developing an Action Plan setting out how NYCHA will establish a Waste Management Department, hire additional caretaker and maintenance staff, work with DSNY to increase weekly trash pickups, and procure additional capital needs such as compactors and bulk augers. Draft will be provided in the first quarter of 2020.

The Agreement requires NYCHA to reduce its pest population (rats, bedbugs, mice, and cockroaches) by adopting industry-standard Integrated Pest Management (“IPM”) practices.⁶ As part of the mandated IPM inspections and treatments, NYCHA staff must also address the root cause issues that contribute to pest infestations, such as trash, leaks, and holes in resident unit walls. The Agreement states that within three years of its effective date, NYCHA shall achieve a significant reduction in its pest population across its portfolio.

As reported in the Monitor’s first quarterly report, the Monitor team collaborated with NYCHA in its formation of Pest and Waste Management working groups. As part of this effort, the Monitor team and NYCHA have visited over a dozen NYCHA developments and met with NYCHA tenant association presidents, development property managers, superintendents, supervisors of grounds, maintenance staff, and caretakers. Additionally, we worked with NYCHA to create best practice and IPM checklists for pests; started the process for each development to create its own waste management plan; oversaw the launch of Operation Rat Attack to clear NYCHA’s backlog of interior rat verified complaints; and prompted NYCHA to respond to resident complaints about rat infestations and internal compactor breakdowns, among other things. The Monitor team is also assisting NYCHA in drafting actions plans focused initially on the implementation of August 1, 2019, performance deadlines under the Agreement. These are still in progress.

Pest and Waste Action Plan

In this past quarter, the Monitor’s Pest and Waste team worked with NYCHA personnel to draft an action plan that they could then finalize and formally submit to the Monitor for his approval. While the draft action plan is an integrated document, pest control and waste management are addressed in separate, though overlapping, sections. Ultimately, this action plan will include a discussion of how NYCHA will satisfy its obligations under

⁶ Integrated pest management or IPM is a broad-based approach that integrates various pest control methods to control pests. The United Nations’ Food and Agriculture Organization defines IPM as “the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment.” Entomologists and ecologists have been advocating for the adoption of IPM pest control since the 1970s because it allows for safer pest control.

Exhibit B, Paragraphs 35-46, going forward in order to comply fully with the Agreement, including a timetable for the same.

In the draft Action Plan for pest control, a good deal of emphasis is placed on application of IPM, including training of NYCHA staff for same. Significant progress is being made in that regard, and NYCHA appears to be fully embracing best practices under IPM including pursuing a full revamping of its standard operating procedures and localizing its practices. Likewise, NYCHA's signature program called the Clean Buildings Initiative ("CBI") is detailed in the draft action plan. While CBI does not address the need for immediate targeted relief for pest remediation, in the long term it has the potential to ameliorate current problems and to set the standard for cleanliness and sanitary conditions in NYCHA buildings. NYCHA's challenge will be to make the improvements sustainable through staff and resident IPM training and education, better complaint responsiveness, and better inspection and treatment application through the adoption of revamped standard operating procedures and enhanced preventive maintenance and waste management.

NYCHA's Waste Management Plan focuses on compliance with Exhibit B ¶ 45 of the Agreement, which requires that NYCHA, on at least a daily basis, inspect the grounds and common areas of each building for cleaning and maintenance needs, including pests and trash, and remediate sub-par conditions. Further, NYCHA must ensure that trash on the grounds and in common areas is being collected every 24 hours and removed from the premises or stored so as to prevent access by pests.

To achieve compliance, NYCHA created a Waste Management Department to centrally manage all facets of waste collection and disposal, including liaising with the Department of Sanitation; managing curbside and container pickups; daily monitoring of all equipment; managing all equipment repairs and preventive maintenance; and developing standards and procedures for waste management. Projects include: designing a template for development-by-development waste management plans; updating waste management asset information; and completion of a staffing analysis. Further steps include: expansion of the daily electronic record-keeping of information about routine grounds inspections, which automatically generates work orders for necessary repairs, treatments, and removal of overflow; reduction of trash collection burden through resident engagement; and roll-out of "Campaign for a Clean NYCHA" to increase public awareness and affect behavioral change. NYCHA is: discussing an expansion to 7-day curbside service with DSNY; improving containerization at curbside locations; contracting with carters for gap-day pickups; and evaluating bulk carting to nearby NYCHA bulk

collection sites. Finally, NYCHA is analyzing bulk ticket data to determine the optimal distribution of bulk waste tickets, leading to more efficient collection of bulk waste.

Following a needs assessment and prioritization for asset replacement, NYCHA submitted a \$165 million capital plan to HUD for 2020-2024, which will fund interior compactors, new waste yards, secondary collection sites and a pneumatic waste collection system. Further capital needs to address waste and pest issues will be detailed as NYCHA develops the individual development-based waste management plans.

The plan includes a redesign of exterior waste yards to eliminate in-kind compactor replacements and to incorporate facilities to store multiple waste streams, enabling more secure storage of waste and recycling materials. Auger compactors will replace conventional ram compactors and open-top containers. The new waste yards will include improved fencing and partial canopy for improved aesthetics and cleanliness. Pneumatic collection systems will be installed. Currently, wholesale infrastructure improvements are being made, including: installation of food waste disposers at suitable sites; enlargement of trash chute doors on the ground floor; replacement of interior and exterior compactors; and installation of bulk crushers at suitable sites. NYCHA has developed maps for distribution to tenants marking the locations of trash chutes, recycling bins and bulk waste drop-off areas; has completed a pilot study aimed at changing the behavior of tenants respecting waste disposal; has completed a pilot deployment of cardboard balers to enable efficient storage of large volumes of cardboard waste between collection days; and has issued an RFP for long term mattress recycling.

In combination, NYCHA believes that the steps summarized above will result in cleaner grounds and greater frequency of waste collection, and will secure storage of waste between collections, thus satisfying the requirements of ¶ 45.

Clean Buildings Initiative

If successful, NYCHA's CBI can potentially ameliorate current conditions in NYCHA buildings. See Agreement Exhibit B ¶¶ 36 – 39, 41, 43, and 45. NYCHA developed the CBI as a comprehensive, ongoing initiative to achieve an acceptable standard of living and building maintenance for all NYCHA properties. Based on a development and building-based "clean up" strategy that will touch every NYCHA apartment unit over three years, the CBI includes the following components: an IPM exterminator and maintenance team will evaluate and treat the premises; the team will perform non-complex minor repairs; vendors will clean the building's trash chutes; NYCHA staff will remove current hopper doors on first floors and replace them with larger doors; and all hallway floors will

be cleaned, stripped, and waxed. Further, NYCHA will provide cleaning kits to residents to facilitate longer-term maintenance of clean and pest-free unit conditions.

In support of the CBI, NYCHA has created and is in the process of hiring staff for a new contract management unit to oversee third-party contractors' performance of these functions. NYCHA recognizes that pivotal to the success of the CBI is a robust resident communication and engagement campaign that includes web-based communications, timely resident notices allowing for apartment unit preparation time, and reference materials on maintaining clean and pest-free unit conditions. The current schedule for implementation for all 138 NYCHA consolidations contemplates completion of 18 consolidations in Year 1, 60 in Year 2, and 60 in Year 3, at a rate of 5 consolidations per month, except in Year 1 during which three consolidations will be done in the first 9 months, and 15 consolidations in the last three months. The total costs are projected at approximately \$160 million for the full three-year cycle.

NYCHA began a pilot of the CBI in December 2019, starting with work on exterior grounds, common areas, basements, and compactor rooms. Although we commend NYCHA for developing this initiative and beginning a pilot, our observations of work thus far identified certain concerns relating to NYCHA's processes, practices, and vendor oversight. Perhaps most concerning, we observed NYCHA vendors improperly baiting for rats on NYCHA exterior grounds. In addition to potentially violating an EPA rule and other New York State environmental regulations, the improper baiting technique is unsafe to humans and ineffective in exterminating rats. We previously discussed this issue with NYCHA after we observed NYCHA staff using the baiting technique at a development in October 2019. NYCHA asserted it was not a systemic issue, and would educate relevant personnel on proper rodent baiting technique. We have again discussed the issue with NYCHA, and are actively monitoring NYCHA's compliance. We will continue to observe the pilot and provide feedback as work moves into resident apartment units in January 2020.

Pest Population Infestation Index

Consistent with the Agreement and as described in our second quarterly report, the Monitor developed a NYCHA Pest Population Infestation Index ("NPII") protocol to survey the pest populations across NYCHA's residential real property portfolio. *See* Agreement Exhibit B ¶ 35; MR2 at 45-46. The NPII is designed to establish a baseline of pest populations and then track and measure NYCHA's pest management and control progress as required by the Agreement. In particular, to establish a baseline of pest populations, the NPII requires NYCHA to have IPM-trained specialists ("NPII Inspectors") physically

inspect a statistically representative random sample of at least 8,000 apartment units across 75 developments and 225 buildings.

In December 2019, NYCHA and the Monitor team began implementing the NPII with a multi-day training for NPII Inspectors. The training, led by Monitor team experts, included both classroom and field components as well as a written test. NPII Inspectors will begin inspecting apartment units in February 2020. NYCHA inspectors will attempt to access at least 96 units per day over the next four to six months. We commend NYCHA for supporting the implementation of the NPII, and look forward to the completion of apartment unit inspections in an efficient and timely manner.

Door Sweeps Installation

Consistent with the Agreement, NYCHA is required to install 8,000 door sweeps on basement doors with gaps by March 31, 2020. See Agreement Exhibit B ¶ 46. NYCHA reports that it remains on track to meet the deadline.

The Monitor team began to confirm NYCHA's door sweep installation progress through physical observations of a sample of reported installation locations. We informed NYCHA that we would be undertaking such observations. In brief, it appears that NYCHA may have a systemic issue with how door sweeps have been installed (or whether they were installed at all). In December 2019, NYCHA provided us with door sweep installation data. Based on that data, the Monitor team conducted physical observations of 98 installation sites across four developments and three boroughs. Of these 98 locations, only 17 had door sweeps that were installed correctly (*i.e.*, installed such that there were no gaps through which pests could enter). Perhaps even more concerning, multiple locations did not have any door sweep installed, despite the location being listed by NYCHA as "complete." Informally, the Monitor team, including its pest experts, has observed the same findings at certain other developments. We shared the detailed results of our observations with NYCHA, including the work order, address, and door sweep installation status (*i.e.*, correctly installed, incorrectly installed, or missing) of each location visited, as well as representative captioned photographs. NYCHA has been responsive to our concerns, and we continue to discuss appropriate corrective and preventative measures that will enable NYCHA to meet the March 31, 2020 deadline with at least 8,000 correctly installed door sweeps.

Pilot Program

As we discussed in our last report, a waste management and pest control pilot program was launched at two Manhattan developments to help formulate best practices and establish a blueprint for training NYCHA staff and residents. The pilot was initiated in response to reports of severe pest infestations to which residents alerted the Monitor team.

As part of the resident engagement piece of the pilot program, in December 2019, NYCHA, the Monitor team, and resident leaders, together with a pest management expert working under a HUD grant, organized a Stop Pests training session at the two developments. The purpose of the session was to educate residents on how to prevent pest infestations and what products are safe and effective to use around children and individuals with respiratory problems.

The training sessions focused on the main varieties of pests that are often found in public housing: mice, rats, cockroaches, and bed bugs. The trainers debunked common household myths about pest eradication and instructed residents on how to communicate pest problems effectively to property management. The trainers reinforced that residents should rely on professional exterminators to eliminate vermin, and refrain from using commercial self-treatments. Residents were extremely receptive and engaged with the training. Some remarked that the use of commercial self-treatments is often their last resort after the many work order requests have been ignored.

Following the Stop Pests training, the Resident Associations will select "Resident Ambassadors" to serve as individual "building captains" in their development. Resident Ambassadors will be responsible for organizing training sessions and providing the Stop Pests training they received for the residents in their building. Resident Ambassadors and Resident Association Presidents will receive a one-time pilot-related stipend for their completed work. This stipend will not be counted towards residents' income.

Also, as part of the training for NYCHA staff, the Monitor team organized an onsite pest training in occupied units and moveout units led by an independent pest expert. NYCHA used existing work orders to identify units in a development on the Lower East Side of Manhattan that needed to be treated for various pests. Resident permission was obtained to have a small group of NYCHA staff trainees and a trainer enter these units.

Maintaining proper waste management practices and eradicating pests in the long term will require large-scale resident participation. We expect that this resident-driven pilot

program and collaboration with NYCHA staff will facilitate such participation and enable NYCHA to implement comprehensive waste and pest management solutions across its portfolio.

Concerns about Extermination Practices

During this reporting period, we identified certain environmental, health, and safety concerns relating to NYCHA's rodent extermination practices on exterior grounds. At multiple developments, we observed NYCHA exterminators and vendors improperly baiting for rats, including in potential violation of the 2011 Environmental Protection Agency ("EPA") Risk Mitigation Decision for Ten Rodenticides, an EPA decision aimed at reducing the risk of accidental rodenticide exposure in children and accidental poisonings in pets and wildlife. The observed improper baiting techniques included the inappropriate placement of blocks, soft baits, and "place packs" as rodent bait into burrows as well as caving in burrows immediately after baiting. In addition, we identified several exterior bait stations across multiple developments that were not properly secured in place and/or broken and thus exposing easy access to the baits within. Such bait station conditions present serious EPA and other regulatory compliance issues, including tamper-resistant and labeling regulations, not to mention the potential consequences of a child encountering rat poison.

NYCHA has been responsive to our concerns. We continue to engage with NYCHA about appropriate mitigation and practices improvements, and are actively monitoring NYCHA's compliance.

RESIDENT AND COMMUNITY ENGAGEMENT

The Monitor team is committed to working with NYCHA not only to improve the physical conditions at developments but also the way NYCHA communicates with, and provides services to, its residents. The successful resolution of mold, lead paint, waste and pest problems, and the replacement of elevators and boilers, depends on NYCHA's ability to communicate effectively with the residents in order to access their apartments to make the necessary repairs, keep the residents abreast of their rights, and ensure that they are informed of NYCHA's rules and policies.

In November, the Monitor team met with NYCHA staff from the Office of the Chair, Community Engagement and Partnerships and Resident Engagement, and we are encouraged by the actions that NYCHA is taking to address communication issues. It is

our understanding that NYCHA is working to reinvigorate its communications department by creating new processes to improve the way it conveys information to the residents, its staff, the community, and other stakeholders outside of NYCHA.

In the upcoming months, the Monitor team in collaboration with HUD will work to examine NYCHA's compliance with HUD 964 regulations, including its policies governing NYCHA's relationship with Resident Associations, elections, and disbursement of Tenant Participation Activity ("TPA") funds, as well as the impact of such policies on the effectiveness of the authority to facilitate resident engagement and communication. We also have been working with NYCHA on creating a model for how to engage with the residents as part of our joint work on action plans. As part of the NYCHA-Monitor pilot project on waste management and pests at two Manhattan developments, discussed in the prior section of this report, together we began working with the resident associations and over three dozen residents on creating solutions that are resident-driven.

Community Advisory Committee Meetings

On December 3, 2019, the Monitor held a fourth Community Advisory Committee ("CAC") meeting. As we noted in our first report, the Monitor intends to hold these meetings more frequently than mandated by the Agreement, which requires only quarterly CAC meetings. The Monitor expects to hold a total of five CAC meetings and three other community meetings by the end of the first year of the monitorship. The CAC meetings are streamed live and accessible by phone, and are dedicated to addressing areas for improvement identified by CAC members. The community meetings held at NYCHA developments are solely dedicated to hearing from the residents, elected officials' staff, and the community about issues with lead, heat, mold, waste, pests, and elevators, among other concerns.

The fourth CAC meeting began with the Monitor's overview of the Second Quarterly Report, followed by an update by the HUD Regional Administrator who reaffirmed HUD's commitment to supporting our joint efforts to reform NYCHA and discussed the \$450 million in state reimbursement funds which will facilitate the replacement of heating plants and elevators at 35 NYCHA developments.

The CAC members then spoke about their ideas for improvements at NYCHA in the following areas: 964 regulations and resident association bylaws; much needed operational and physical enhancement of community centers; issues with construction at NYCHA and the need for better coordination; residents' rights and leases; advantages and disadvantages of development consolidations; and the NYPD's commitment to

working with the Monitor and increasing safety at NYCHA and its communities. The meeting has been viewed over 230 times and a few dozen listeners joined over the phone.

Community Meetings

On November 12th the Monitor team hosted a community meeting on Staten Island as part of the CAC's work to solicit input from NYCHA's stakeholders. At this meeting we heard from residents and provided an overview of the Second Quarterly Report, our work on lead and mold, and the GDA action plan that will govern the expenditure of \$450 million in state funding for new boilers and elevators at 35 NYCHA developments.

The West Brighton Resident Association President welcomed the attendees and was joined by one of the Citywide Council of Presidents ("CCOP") District Chairs who expressed the CCOP's commitment to supporting reform at NYCHA. We also had a productive discussion with the residents who, in addition to airing complaints at the meeting, were able to report them directly to NYCHA employees who had set up a table outside the meeting location.

Soliciting input from residents and other NYCHA stakeholders will remain a centerpiece of the Monitor's work in evaluating NYCHA's compliance with the Agreement and federal, state, and city laws. We are encouraged by the participation of both residents and NYCHA personnel at the CAC and community meetings we have conducted thus far, and have high expectations that what we learn from those meetings will help inform and improve the state of NYCHA now and for years to come.

Community Engagement Efforts

Pursuant to the Agreement, the Monitor's community engagement team continues to identify and engage NYCHA stakeholders beyond its residents and the CAC. This quarter we focused on community organizations that are situated on NYCHA property providing social services to residents. At one time, NYCHA provided those services. It was decided, however, that a better model would be for NYCHA to contract with city agencies whose mission is to provide assistance to children, seniors, and the larger community. In turn, these city agencies contract with community groups to provide on the ground services. In rare instances, NYCHA either retains operation of the centers or itself contracts directly with a community organization. No matter the contracting arrangement, we heard the same concerns: lack of repairs, NYCHA's failure to take ownership of violations received due to building systems failures, and ineffective communications between the community organizations and NYCHA about matters impacting residents.

As we previously reported, the City is negotiating a master lease and contract to cover repairs to NYCHA community centers. We are recommending that NYCHA convene a working group, with specified deliverables, to manage this effort.

Community centers at times receive violations for which the responsibility is clearly NYCHA's as the building owner. For example, we have learned of violations for failure to have properly working fire suppression systems. In some instances, NYCHA has sought to address this deficiency by hiring fire marshals. The cost and even the efficacy of this practice should be examined. In other instances, organizations have had to curtail their client population so they are within adequate boundaries for proper protection, which means less available services for NYCHA residents.

NYCHA has recently acquired the capability to capture all of its violations and categorize them. Those violations that are NYCHA's by virtue of property ownership should be separated and payment arrangements made so that the community organizations do not have to suffer the consequences for something over which they have no responsibility.

We previously expressed concerns regarding NYCHA's failure to communicate with center directors about matters involving the residents. As we discussed in the heat section of this report *supra*, NYCHA designated certain centers as alternative heat spaces in the event of a heat outage but did not communicate this role to the centers and several of the designated centers were without heat themselves.

We understand NYCHA is revamping its communications capacity and recommend these concerns be incorporated. Until then, we further recommend regularly scheduled meetings between property managers, center directors, and resident association presidents to keep all stakeholders informed of matters of mutual interest.

DRONE INSPECTIONS OF BUILDING FACADES

The tragic death of a female pedestrian from falling building debris last month has put a spotlight on the issue of crumbling building facades. NYCHA has the opportunity to be a leader in its field by demonstrating that drone technology can be employed to identify and help correct dangerous conditions in a safe and legal manner.

Local Law 11

The New York City Council recognized the dangers posed by falling debris when it passed Local Law 11 in 1998. The law was enacted after a series of injuries and fatalities to pedestrians as a result of bricks and other pieces of loose building facades falling onto sidewalks. Local Law 11 requires that every building in New York City taller than six stories be checked by a qualified inspector for structural problems on its facade; if a building is found to be a hazard, bridges must be installed over the sidewalk to protect the public until the hazardous conditions are repaired.

Compliance with Local Law 11 has been a tremendous challenge for NYCHA, as many of its buildings are aging and require significant work. The process of conducting facade inspections, issuing contracts, and having engineers and contractors make the repairs is very time consuming. As a result, there are currently miles of sidewalk bridges and scaffolding erected around NYCHA buildings throughout the city, costing NYCHA in excess of \$30 million per year to maintain. While NYCHA has decreased the number of sidewalk bridges and scaffolding erected around its buildings in recent years, the number of NYCHA buildings around which scaffolding remains in place for long periods of time is still excessive.

Residents complain that the constant appearance of these structures around so many of their buildings is unsightly and demoralizing. Additionally, excessive scaffolding around development buildings can create safety concerns by blocking security cameras and exterior lighting, and can shield criminal or other unwanted activity from observation. In some instances, these structures even obstruct access to fire hydrants. The obvious answer is to expedite the inspection and repair of building facades so that pedestrian safety is secured without the need for permanent scaffolding.

Drone Technology Benefits

In May 2019, the Monitor team began exploring the use of drone technology as a way to reduce both the need for sidewalk bridges and scaffolding and the length of time they remain in place. Drones can generate point cloud data information for building exteriors that can be uploaded into a software platform, along with permit and other building information, so that drawings for exteriors of buildings can be generated in days, rather than months or years. This would enable NYCHA to obtain permits faster, plan more efficiently for required repairs, and eliminate the significant costs of erecting and maintaining scaffolding or sidewalk bridges for long periods of time. Detailed information about the condition of its building exteriors also will enable NYCHA to better understand

the current state of its assets and more effectively budget for its capital needs going forward. For all these reasons, with the use of drone technology, NYCHA could see millions of dollars in savings across its program.⁷

Drone flight scans easily can be completed in under an hour for an entire building. Dozens of buildings can be scanned by only a handful of drone pilots. Because the flights are completely autonomous and under computer – not human – control, extensive pilot training is not necessary. The role of the pilot is mainly to plot the flight patterns of the drone using software that can be purchased from a number of different companies which specialize in drone technology. Included in the software designs are safety features that prevent the drones from flying too close to buildings or other objects, or flying above a certain altitude. Drones also utilize the latest parachute and fall arrest technology. As addressed below, before any scan, the flight plans would be submitted to and approved by the Federal Aviation Administration (“FAA”) and the City of New York, and would include measures to ensure the privacy of building residents and the public.

City employees can be quickly and easily trained to operate the drones, eliminating the cost of hiring outside consultants. Another important benefit is that the point cloud scan of a building costs only around one thousand dollars, whereas manual inspection and drawings for development buildings typically cost tens of thousands of dollars at a minimum.

In addition to assessing the condition of building exteriors, drones can also be used to conduct thermographic inspections of building walls to identify potential leaks. Currently, NYCHA uses thermography to take photographs of the roofs of its buildings with great success. NYCHA, however, has not yet employed thermographic imaging on the walls of its buildings beyond the roof area. With drone inspections, scans of the roof are included as part of the overall horizontal and vertical thermographic scans of the buildings. Drones can accomplish these scans in minutes. Images from infrared cameras will show the heat difference between the hot roof or vertical wall surfaces and the cooler areas under the roof or in wall cavities where water is present, thereby pinpointing the presence of leaks. With this additional information, NYCHA can ensure that leaks in building envelopes are resolved before interior work is adversely affected. In the past, interior work (i.e., mold

⁷ We relayed this information to NYCHA and then followed up with at least one drone demonstration. A video of a drone demonstration is available at the following link: <https://nychamonitor.com/wp-content/uploads/2020/01/vHive-video-update1.28.mp4>.

remediation, repainting, elevator repair) repeatedly has been compromised by unaddressed water incursions.

Legal Framework

The Monitor has obtained legal advice indicating that NYCHA could operate drones in New York City subject to certain limitations. Under existing law, NYCHA would have to comply with FAA regulations, obtain the relevant air traffic control permissions, and adhere to New York City Administrative Code § 10-126(c), which prohibits take-offs and landings within city limits except in designated areas.

More favorable regulations for drone usage would greatly benefit NYCHA. The current city restrictions, which constrain drone take-offs and landings to a few designated areas, will limit the benefits that drone technology can provide. The cost and time savings provided by drones, and the ability to monitor building conditions regularly with minimal effort, should be important considerations for any future legislation.

V. CONCLUSION

As reported above, in the last quarter NYCHA has completed, or is close to completing, comprehensive action plans for all of the critical services that it must provide to residents under the Agreement. These action plans represent a transformation in how NYCHA operates, and the Monitor team will oversee NYCHA's compliance with these plans going forward. But NYCHA must look beyond the action plans for ways to operate more effectively and efficiently across all of its portfolio. The upcoming new organizational plan, a better communications strategy, and the integration of new technology, such as the use of drones for building inspections, can be key components in this effort.

APPENDICES

APPENDIX 1



NEW YORK CITY HOUSING AUTHORITY

250 BROADWAY • NEW YORK, NY 10007

TEL: (212) 306-3000 • <http://nyc.gov/nycha>

GREG RUSS

CHAIR & CHIEF EXECUTIVE OFFICER

Letter from NYCHA Chair and CEO Greg Russ and General Manager Vito Mustaciulo

This January 31, 2020 marks the one-year anniversary of our signing the Agreement with our colleagues at the U.S. Department of Housing and Urban Development (HUD) and the City of New York, which required the appointment of a monitor to oversee the compliance and performance of the organization. We thank Bart Schwartz for agreeing to let us write a brief note reflecting on the one-year anniversary of the Agreement in this quarterly report.

At NYCHA, we view the Agreement as a once in a generation opportunity. To us, the Agreement, and the work we must do under the Agreement, represents an inflection point for public housing in New York City. We are using the Agreement as the foundation for the Authority's transformation, to make this housing authority better serve our residents and make this housing authority an example for the country once again. To achieve these goals, we know that we must work collaboratively with our colleagues on the Monitor's team as well as HUD.

In the last few weeks, we've been reflecting on the anniversary of the Agreement, and have been taking stock of the past year – reflecting on the progress we have achieved, what we have learned and all the work that we must still do. It is evident that we have a talented and committed workforce who have advanced strong, effective programs, even during the Authorities' most challenging periods. The fortitude of NYCHA staff is unparalleled. We recognize that part of our obligation is to provide our employees with a business model that will enable them to succeed and develop their expertise further so that we may have future generations of leaders in public and affordable housing. We remain focused on looking forward to the work ahead and are excited to continue working with the Monitor and all our stakeholders. In this note, we've tried to provide a window into the last year at NYCHA since we signed the Agreement and to provide a preview of the work that lies ahead.

Changes to NYCHA's Organizational Structure

In some ways, transforming NYCHA is analogous to constructing housing on a large scale from the ground up. Any engineer will tell you to first focus on building a foundation. For NYCHA, that foundation includes building an organizational structure that reorients itself towards what matters – providing high quality service to residents, rooting out deceptive practices and establishing a culture of compliance and service, and focusing on innovative future-oriented solutions rather than merely reacting to crises. Any engineer will also tell you that building a rock-solid foundation requires rigorous planning.

Since August 2019, we have worked together to provide stability and have actively sought the advice of every stakeholder. Together, stability and a collaborative approach will help us think creatively regarding how we can transform NYCHA by imagining new strategies rather than falling back to doing things the way they have always been done at NYCHA.

1. New Departments Focused on Accountability and High-Quality Service

The Agreement required that we establish three new departments at NYCHA – a Compliance Department, an Environmental Health and Safety Department, and a Quality Assurance Unit. Each of these departments has been established and are up and running. The purpose of these departments is to create feedback and controls that help improve how we do business.

- ❖ **Compliance:** NYCHA established a Compliance Department, led by a new Chief Compliance Officer, which is tasked with establishing a culture of compliance at NYCHA. The Compliance Department has built a team of staff that have successfully begun to ensure accuracy and integrity of NYCHA processes, trained our staff on how to comply with HUD, City and other regulatory requirements, and received regular feedback from our residents on issues they have observed.
- ❖ **Environmental Health and Safety:** NYCHA established an Environmental Health and Safety Department, led by a new Officer, that is tasked with analyzing and improving NYCHA's response to issues relating to lead-based paint, mold, heating, pests, elevators, air quality and other environmental issues that affect our residents' health and safety. The Environmental Health and Safety Department is consistently investigating heat outages, our compliance with lead-based paint protocols and other work to make sure we improve the way we respond to our residents.
- ❖ **Quality Assurance:** NYCHA established a Quality Assurance Unit, led by a new Director, that is tasked with identifying maintenance performance problems, among both vendors and NYCHA staff. NYCHA's Quality Assurance team is helping ensure we enforce high standards among the folks tasked with fixing and maintaining our properties.

2. Organizational Plan

The Agreement required that the City engage a third-party consultant, which was KPMG, to provide a detailed assessment of NYCHA's current state capacity and make recommendations on how we can improve. Next, based on that report, we are obligated to produce an organizational plan that will represent a new operating model for the organization. As part of that effort, we created a new Strategy and Innovation Office to help work with our partners on this project.

This is a big but important undertaking. In December 2019, KPMG issued its report and concluded that NYCHA's operations are uneven and deeply siloed. They concluded that we need to focus our efforts on integrating functions and on providing consistent services at the property-level. Most of all, we need a culture that is solution oriented rather than limiting our vision by focusing only on NYCHA's constraints.

Our new Strategy and Innovation Office, in conjunction with the Monitor's team, have already started the work of creating an organizational plan that reflects these findings and reimagines a new organizational structure for NYCHA. As part of this effort, we seek to break down existing silos by

bringing together our Executive Team, resident leaders, property-level staff and staff from each department at NYCHA in order to think through our future state.

Areas of Focus

Bringing our analogy forward, after establishing a foundation, a large construction project requires that staff focus their energy on concrete tasks and meet specific obligations based on measurable benchmarks. Often, before work can begin, specialized staff will need to plan together by working backwards from these goals and sketching out how the obligations can be satisfied. The Agreement sets forth very specific obligations with respect to six areas of focus, which we now call “pillars” – (1) PHAS Inspections and Annual Unit Inspections, (2) Lead, (3) Heat, (4) Mold, (5) Elevators, and (6) Pests and Waste Management.

In responding to these obligations, we noticed quickly that staff focusing on these areas were often siloed – the people focused on operations, resident engagement, data analysis, capital projects and other functions often did not coordinate across existing departments. As a result, we established what we call “Pillar Teams” to focus on planning and leadership with respect to each area. These teams are unique in that they also bring together folks from across NYCHA’s departments to work with HUD and the Monitor’s team, who also work across pillars. The teams meet frequently and walk through charts laying out specific tasks so that leadership can assess what tasks are at risk of not getting done and to hold staff accountable. Once a month, the pillars also report directly on their progress to us during what we call the Risk Advisory Council.

Each team has also been working together on the comprehensive Action Plans required under the Agreement. The planning process is thorough and intensely focused on details regarding how tasks will be completed, what resources will be required, and what the timelines are for completion. With a good, cogent plan, NYCHA and the Monitor’s team can both ensure resources are spent wisely, staff is executing based on the outlines of the plan and we can conduct oversight related to the specific actions NYCHA has promised to take.

NYCHA has completed its plans with respect to heat, elevators, and PHAS inspections. Other plans are close to completion, and, in all cases, many of the actual actions outlined in the plans are well underway even if the entire plan has not been completed.

In addition to the pillar teams, NYCHA has been hard at work to execute on its capital programs. The State of New York provided NYCHA with \$450 million in reimbursement funds to replace elevators and provide new heating systems to developments with aging infrastructure. The State tasked the Monitor’s team with overseeing the program outlined in a Grant Disbursement Agreement (GDA) in order to ensure that the funds were properly managed and deployed. In the fall, the Monitor’s team approved a GDA action plan that covers these capital projects and the schedule of completion. The Monitor’s team is now working collaboratively with NYCHA’s Capital Project Division to ensure these projects proceed on time.

NYCHA is also working on a capital financing plan for the 110,000 units not currently in the NYCHA 2.0 PACT preservation plan. It is critical to leverage new funding in order to address the physical conditions of these buildings in a more holistic and comprehensive way.

While we acknowledge there is a lot of work ahead of us, we want to highlight a few initial achievements with respect to each of the pillars –

- **PHAS**: Revised our Standard Procedure for PHAS Inspections; Trained approximately 700 employees in new PHAS protocols and prevention of deceptive practices
- **Lead**: Trained 93% of required titles in lead safe work practices. Conducted over 30,000 XRF tests in units. Initiated pilot for Common Area Lead Abatement at Gowanus Houses.
- **Heat**: Reduced the number of outages using a better staffing model; For the period of October 1 to January 12, the number of total heat outages decreased from 1,188 in 2017-2018, to 601 in 2018-2019, to 387 this year – a 67 percent reduction.
- **Mold**: Revised our standard procedure for addressing mold complaints; After successful pilot at 10 developments showing reduced recurrence relative to other developments, rolled out Mold Busters to all developments by September 2019.
- **Pests**: Trained more than 500 staff in Integrated Pest Management (IPM); Provided targeted relief to more than 2,800 units with repeating pest conditions.
- **Waste Management**: Established a Waste Management Department that will also simultaneously focus on managing NYCHA's pest problem.
- **Elevators**: Installed 826 Air-Conditioners in Motor Rooms; Installed 55 waterproof elevator door operators; Increased elevator maintenance staff.

Conclusion

Looking back on the last year at NYCHA, we think we have set a good foundation but have a lot of work ahead. At the top of our list, we think we have established a good working relationship with our federal and monitor colleagues that will be helpful as we continue to work through the Agreement's obligations. The leadership, organizational changes and internal planning work that we have embarked on are critical first steps to make sure we do this work right. Now, we need to focus on execution. We have started to move NYCHA toward the compliance demands of the agreement. We must now refocus on rebuilding our operating structures to deliver better services that the residents can see and feel.

We thank Bart Schwartz again for the opportunity to write this note reflecting on our first year under the Agreement and look forward to working together in the year ahead.

APPENDIX 2

AGREEMENT TRACKING

Lead

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.B.4(a)	No later than 30 days after execution of this Agreement, NYCHA shall provide the SDNY and HUD a report identifying all developments that meet the following requirements: (i) they were built prior to January 1, 1978, and (ii) are not exempt pursuant to 24 C.F.R. § 35.115, as a result of an inspection, an abatement, or otherwise (the "Lead Paint Developments"). Such report will identify each unit (including each "child-occupied facility") within such Lead Paint Developments that is not exempt pursuant to 24 C.F.R. § 35.115 ("Lead Paint Unit").	03/01/19	Partially Completed	NYCHA submitted the report as to residential units to SDNY, HUD and Monitor.
Exhibit A.B.4(b)	No later than 30 days after execution of this Agreement, NYCHA shall provide the SDNY and HUD...a report (the "Immediate Action List" (IAL)) identifying the subset of LPU that NYCHA has reason to believe are occupied or routinely visited by a child under the age of 6. Routine visiting shall be determined in conformance with the first sentence of the definition of child-occupied facility at 40 C.F.R. § 745.83.	03/01/19	Partially Completed	NYCHA submitted the report of IAL as to residential units to SDNY, HUD and Monitor.
Exhibit A.B.5(a)	Within 30 days of execution of this Agreement, NYCHA shall ...perform at least one visual assessment in accordance with 24 C.F.R. § 35.1355 of each Lead Paint Unit on the IAL unless the LPU received a compliant visual assessment within the preceding 12 months.	03/01/19	Partially Completed	NYCHA self-reported 99% completion rate for residential units. For further details, see the Lead Based Paint Exceptions report at page 4.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.B.5(b)	Within 30 days of execution of this Agreement, NYCHA shall ... eliminate any lead-based paint hazards in LPUs identified on the IAL through the performance of interim controls in accordance with 24 C.F.R. § 35.1330, or through abatement in accordance with 24 C.F.R. § 35.1325.	03/01/19	Not Completed In progress	NYCHA self-reported compliance with respect to residential units (except where access issues prevented work). See the 12-18-2019 Exceptions report (page 5), Compliance will provide a report on the status of interim controls based on the 2019 visual assessments in the Third Exceptions Report (in January 2020). Though NYCHA self-reported completion of paint corrections, it cannot certify compliance with the applicable regulations.
Exhibit A.B.6	No later than 90 days after execution of this Agreement, NYCHA shall submit to the SDNY and HUD documents sufficient to show NYCHA's basis for claiming that particular pre-1978 developments are exempt pursuant to 24 C.F.R. § 35.115. To the extent that HUD and SDNY thereafter notify NYCHA that they reject that determination, such developments, units and common areas will no longer be considered by NYCHA to be exempt pursuant to 24 C.F.R. § 35.115. If HUD and SDNY (a) object to the exemption for a particular development, unit, or common area, and (b) the lack of exemption would have led to the inclusion of additional units or common areas on the Immediate Action List, NYCHA shall within 30 days thereafter comply with paragraph 5 as to such additional apartments.	05/01/19	Completed	NYCHA provided documentation to HUD and SDNY.
Exhibit A.G.19	Within 30 days of appointment of the Monitor, NYCHA shall provide the Monitor a list (the "EIBLL/EBL-Triggered Risk Assessment List") of all units, common areas servicing such units, and developments in which neither an environmental investigation nor a risk assessment was performed since the date of: (a) the reporting to NYCHA (if on or after July 13, 2017) of a case of a child under age 6 with an elevated blood lead level (EBLL) (as those terms are defined in 24 C.F.R. § 35.110, as amended by 82 Fed. Reg. 4151 (Jan. 13, 2017))	03/01/19	Completed	NYCHA provided the Monitor with the list. Monitor has pending inquiries related to NYCHA EIBLL follow up.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
	<p>living in such unit and development, or (b) the reporting to NYCHA (if before July 13, 2017) of a case of a child with an elevated blood lead level (EIBLL) (as those terms were defined in 24 C.F.R. § 35.110, prior to amendment by 82 Fed. Reg. 4151 (Jan. 13, 2017)) living in such unit and development.</p>			
<p>Exhibit A.G.20</p>	<p>After providing the Monitor the EIBLL/EIBLL-Triggered Risk Assessment List, within a timeframe acceptable to the Monitor, NYCHA shall confirm that the New York City Department of Health and Mental Hygiene (“NYC DOHMH”) has performed an environmental investigation in accordance with 24 C.F.R. § 35.110, 1130, in any unit and common areas servicing that unit identified in the EIBLL/EIBLL-Triggered Risk Assessment List. To the extent the NYC DOHMH has not performed an environmental investigation in accordance with 24 C.F.R. § 35.110, 1130, in any unit and common areas servicing that unit identified in the EIBLL/EIBLL-Triggered Risk Assessment List, NYCHA shall perform such environmental investigation within a timeframe acceptable to the Monitor.</p>		<p>Completed</p>	<p>After inquiries by the Monitor, NYCHA has been providing weekly updates on the status of each reported EIBLL. See report for more details.</p>
<p>Exhibit A.G.21</p>	<p>After issuing or receiving the report of the environmental investigation, within a timeframe acceptable to the Monitor, NYCHA shall complete the abatement of identified lead-based paint hazards in accordance with 24 C.F.R. § 35.1130(c) and 35.1325.</p>		<p>In progress</p>	<p>The Monitor receives reports of follow-up activity and is auditing a sample of these reports.</p>

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.G.22	NYCHA shall perform risk assessments for all other units in the building in which a child under age 6 resides or is expected to reside on the date lead-based paint hazard reduction under Paragraph 21 is complete, and common areas servicing those units in the developments identified in the EIBLL/EIBLL-Triggered Risk Assessment List, within a timeframe acceptable to the Monitor.		In progress	NYCHA is in the process of procuring a contract for risk assessments which is expected by January 2020. See the 12-18-2019 Exceptions report (page 20), 180 risk assessments in IAL units at six high-risk developments were completed.
Exhibit A.H.23	NYCHA shall report to HUD each confirmed case of a child with an elevated blood lead level within 5 business days of being so notified in accordance with 24 C.F.R § 35.1130.		Ongoing	NYCHA is in compliance with the obligation.
Exhibit A.H.24	No later than 60 days after the execution of this Agreement, NYCHA shall enter into a written agreement (MOU) with the NYC DOHMH resolving any barriers to the sharing of information relating to resident children's blood lead levels necessary for NYCHA to make disclosures to HUD in accordance with paragraph 23 and 24 C.F.R § 35.1130, and shall provide a copy of such agreement to SDNY and HUD.	04/01/19	Complete	MOU has been signed.
Exhibit A.H.25	NYCHA shall report to the Monitor and to SDNY and HUD any NYC DOHMH Commissioner order to abate lead-based paint within five days of receiving any order.		Ongoing	NYCHA is reporting to HUD and the Monitor.
Exhibit A.H.26	On and after the Effective Date, to the extent NYC DOHMH has not performed an environmental investigation of any unit in which a child with an elevated blood level has been reported within 15 days of identifying such unit, NYCHA shall perform an environmental investigation of that unit and common areas servicing that unit and perform abatement of any lead-based paint hazards within thirty days in accordance with 24 C.F.R §§ 35.1325.		Ongoing	NYCHA provides weekly updates regarding all EIBLL occurrences and related responsibilities.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.H. 27	From and after the Effective Date, NYCHA shall provide residents signing new leases (or, where required by regulation, renewal leases) with information about the presence of lead-based paint and lead-based paint hazards in their apartments and developments in accordance with the Lead Disclosure Rule, 24 C.F.R part 35, subpart A; 40 C.F.R. part 745, subpart F.		Ongoing	NYCHA acknowledges that it is not fully complying with this requirement. As a result, NYCHA is working on IT enhancements for this as part of its LBP Compliance Program.
Exhibit A.H. 28	NYCHA shall ensure that physical copies of all materials required to be disclosed by the Lead Disclosure Rule are present, available for inspection, and permanently maintained at the management office for each development.		Ongoing	NYCHA's Compliance Department monitors its compliance with this obligation on an ongoing basis. NYCHA reports compliance. Verification by Monitor is ongoing.
Exhibit A.H. 29	NYCHA shall ensure that electronic copies of all materials required to be disclosed by the Lead Disclosure Rule are available to residents through an Internet-based portal.		In progress	NYCHA reports that this will be completed during the first quarter of 2020.
Exhibit A.H. 30(a)	No later than 120 days after execution of this Agreement, NYCHA shall submit to SDNY and HUD a statement describing its compliance with paragraphs 4-6. In its submission to SDNY and HUD, NYCHA shall specify the method(s) used to correct any lead-based paint hazards identified on the Immediate Action List and certify that such corrections were performed in compliance with the Lead Safe Housing Rule, Renovation, Repair and Painting Rule and Abatement Rule, as applicable, and that residents were notified of the corrections in compliance with the Lead Safe Housing Rule.	05/01/19	Complete	See first quarter Monitor's report (pages 36 and 37) for more detail.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.H.30(b)	Six months after the Effective Date, and every six months thereafter, NYCHA shall provide SDNY, HUD and the Monitor a certification describing its compliance with paragraphs 8 to 15.	08/01/19	Ongoing	Obligation repeats every six months. On July 31, 2019, NYCHA submitted certification on time but was unable to certify to many items in paragraphs 8 – 15 of the Agreement. See lead paint section of this report.
Exhibit A.H.33(a)	By January 31, 2019, NYCHA will display a sample kit of the supplies needed to complete an RRP work order in all 139 storerooms by January 31, 2019	01/31/19	Complete	Site inspections and inquiry by the Monitor have verified that the Kits were <u>initially</u> delivered by NYCHA and displayed as required under the Agreement. See the 12-18-2019 Exceptions Report (page 9), EHS inspected 51 storerooms and found 39/51 storerooms compliant with all supplies present, and 12/51 storerooms non-complaint with one or more supplies missing.
Exhibit A.H.33(b)	NYCHA will issue a minimum of one kit of RRP supplies to RRP-certified staff daily	02/28/19	Complete	Site inspections and inquiry by the Monitor have verified that the Kits have been delivered by NYCHA and displayed as required under the Agreement.
Exhibit A.H.33(c)	NYCHA will enhance its work order system to automatically create a "dust wipe" work order if an RRP work order is generated by February 28, 2019.	02/28/19	Complete	The required enhancement was performed and was ineffective. NYCHA thereafter initiated a call-in dispatch system to improve the scheduling of timely dust wipes. The Monitor is working with NYCHA to improve this system.
Exhibit A.H.33(d)	NYCHA will select a vendor to supplement the EPA's RRP training with practical training on dust control measures to simulate a range of working conditions by March 31, 2019 and train substantially all RRP-certified staff by December 31, 2019.	03/31/19 and 12/31/19	Complete	Site inspections and inquiry by the Monitor have verified that the Kits were <u>initially</u> delivered by NYCHA and displayed as required under the Agreement. See the 12-18-2019 Exceptions Report (page 9), EHS inspected 51 storerooms and found 39/51 storerooms compliant with all supplies present, and 12/51 storerooms non-complaint with one or more supplies missing. NYCHA reports that over 90% of the RRP staff has received RRP training, which the Monitor will verify.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit A.H.33(e)	NYCHA will provide all Resident Building Superintendents, Assistant Resident Building Superintendents, and Property Managers with training in RRP practices on an ongoing basis.		Complete	New NYCHA employees are receive training, which has been verified by the Monitor.
Exhibit A.H.33(f)	NYCHA will train all maintenance workers to perform lead-based paint visual assessments by September 30, 2019.	09/30/19	Complete	NYCHA has complied. In addition, all new NYCHA maintenance employees receive training, which has been verified by the Monitor.
Exhibit A.H.33(g)	NYCHA will secure additional, dedicated painting contracts for the Healthy Homes Department to exclusively focus on remediation by December 31, 2019.	12/31/19	In Progress	NYCHA asserts that it is securing additional dedicated painting contracts for the Healthy Homes Department and has put a line-item for remediation and painting in new lead abatement contracts. The Monitor will verify this information and monitor the acquisition of painting vendors by NYCHA going forward.

Heat

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.A.3	Within 90 days of the Effective Date of this Agreement, for those developments which are already furnished with electronic temperature reading devices, NYCHA will institute and maintain a system that identifies all apartments in which such devices indicate a violation of the City Code heating requirements and identifies the inside and outside temperatures associated with such violation.	05/01/19	Complete/ Ongoing	NYCHA has implemented a system to monitor all developments and electric temperature devices that are currently in operation. The Monitor has verified that the system is operating. Verification by the Monitor will be ongoing as new installations are completed.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.A. 4	This information will be available to all NYCHA personnel responsible for heating and to all development managers		In Progress	NYCHA's monitoring system is online and accessible on NYCHA's internal servers on the NYCHA website, however only a portion of the data is currently being displayed. The Monitor is working with NYCHA to rectify this situation to ensure that all of the available data is on the website. The Monitor will also continue verifying that information sharing protocols are complete and are being complied with by NYCHA.
Exhibit B.A. 5	This information will be fully available to the Monitor, HUD, and SDNY.		In progress	As indicated, while the data from the electronic temperature devices is available on NYCHA's website, the data displayed to date is partial.
Exhibit B.A. 6	An appropriate mechanism for disclosing this information to the public shall be provided in an Action Plan.	10/01/19	Ongoing	NYCHA has included how the information will be disclosed to the public in the heat action plan. As stated above, NYCHA has also started to include the information on their public website in the transparency section.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.A. 8	By October 1, 2019 NYCHA shall establish an Action Plan that identifies, for each development, how NYCHA will respond to heating outages, taking into account resident populations, historical data about prior outages, the availability of on-site and remote maintenance personnel, and response times. The plan shall include provisions for alternative heated community spaces for heating outages that are expected to last for a substantial duration. The plan shall also address NYCHA's policies for closing out work orders when the resident is not available at home or otherwise does not provide access to his or her apartment to resolve a heating outage. The plan shall be made available to the residents and posted online.	10/01/19	Complete	Monitor approved NYCHA's Heat Action Plan on December 5, 2019, which also included Action Plans for the 20 developments with the worst performing heating systems. In late December, NYCHA provided the Monitor with Action Plans for 50 additional developments. In mid-January, NYCHA provided the Monitor with Action Plans for an additional 100 developments.
Exhibit B.A. 14(a)	By March 31, 2019, NYCHA will create a 24/7 Heat Desk which monitor heating metrics and dispatch staff to correct deficiencies during Heat Season.	03/31/19	Complete	24/7 Heat Desk has been timely instituted by NYCHA, which has been verified by the Monitor. The Monitor is working with NYCHA's Heat and IT departments to ensure the accuracy and completeness of the information going forward.
Exhibit B.A. 14(b)	NYCHA will modernize the Building Management System at 44 developments by December 31, 2019. Modernization will include introducing indoor temperature sensors.	12/31/19	In Progress	NYCHA has reported to the Monitor that they are currently modernizing their BMS systems at 50 developments, many of which are near completion. The Monitor will verify these installations.
Exhibit B.A.iii. 9(a)	Consistent with the previously stated heat goals of the Agreement, NYCHA will restore heat to units affected by a heating shortage within an average 12 hours.	10/1/2019	Ongoing	Based on Maximo data which has been analyzed by the Monitor, the average length of heat outages to date for the current heat season is less than 12 hours.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.A.iii. 9(b)	During the Heating Season, for 85% of heating shortfalls, NYCHA will restore heat to affected units within 24 hours, and in no event more than 48 hours. NYCHA may restore heat through the use of temporary replacement heating systems that comply with N. Y. C. Admin. Code.	10/1/2019	In progress	NYCHA has been focusing on reducing full building heat outages rather than individual unit heat shortfalls. The Monitor is working to better analyze Maximo data regarding heat shortfalls especially regarding their lengths and causes. Once the shortfall data is better understood, the Monitor will be working with NYCHA to ensure that these repairs are being made more timely and effectively.
Exhibit B.A.iii.9(c)	In any event in which heat is unable to be restored to a particular unit within 12 hours, appropriate NYCHA personnel distinct from the NYCHA personnel responsible for heat restoration as identified in the heat Action Plan shall undertake an investigation to determine the root cause(s) of such initial failure of the heating system and the failure to achieve the restoration service within the timeframe, identifying corrections to prevent or lessen the recurrence of such failures and track the implementation of such corrective actions. Such information shall be retained in a central repository to which all applicable maintenance staff and management have access.	10/1/2019	Ongoing	NYCHA's Environmental Health & Safety unit, using its own heat SME's, has been conducting heating failure root cause investigations for all since the beginning of the current heating season. The E H&S unit will complete these investigations for all outages greater than 12 hours and will work with the Monitor at the end of the heating season to draft the summary report. The Monitor has and will continue to review the results of these investigations.

AGREEMENT TRACKING

Mold

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.B. 19	NYCHA will not close any mold, flood, or "leak from above" work orders as "Resident Not Home," including any such work orders that NYCHA has not yet verified.	01/31/19	Complete	NYCHA implemented required changes. The Monitor has verified compliance. Although work orders are not being closed as "Resident Not Home", Stout's Q22 report found there were 28,493 (25% of the total work orders considered) classified as Unfounded (2,368), Closed with No Work Done (23,832) or Cancelled (2,293).

Elevators

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.C.21	Within 120 days of the Effective Date, NYCHA shall establish an Action Plan that identifies, for each building that contains an elevator designed for resident use, how NYCHA will respond when all elevators are out of service at that building (a "no-service" condition). Such plan shall take into account the resident population of each building, any individuals with self-reported mobility impairments, historical data about prior outages or service disruptions, the availability of personnel to assist residents, the terms of any elevator support contract, and historical response and repair times. Such plans shall be made available to the residents and posted online.	05/31/19	Complete	The elevator Action Plan was approved by the Monitor on January 30, 2020.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.C.22	Within 120 days of the Effective Date, NYCHA shall provide HUD and the Monitor with sufficient data to identify elevator service interruptions in the prior three years. This data shall be updated at least quarterly.	05/31/19	In Progress	Some data has been supplied by NYCHA, but a full dataset is outstanding, as historical outage data is incomplete or inaccurate in many cases. Quarterly update has not yet occurred. This will be an ongoing obligation.
Exhibit B.C.30	Within six months of the Effective Date, NYCHA will institute and maintain a system that identifies every elevator outage and the start and end times of such outages identified by remote monitoring systems, work-order records, or any additional sources of outage information, and make that system accessible and available to all NYCHA personnel responsible for elevators and to other relevant personnel, including all development managers and the General Manager.	08/01/19	In Progress	Elevator outages are inputted into Maximo. Outage notifications are made via email to all responsible personnel every two hours. A formal outage dashboard similar to what NYCHA has in place for heating outages is currently being created but has yet to be completed or implemented. These protocols are part of the recently completed elevator Action Plan. The Monitor will verify that protocols are being followed going forward.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.C.32	Within six months of the Effective Date, NYCHA will establish a system to provide residents of buildings affected by a planned outage 24-hours advanced notice, and to provide residents of buildings affected by an unplanned outage notice within two hours of NYCHA learning of the outage. Such notice shall include instructions regarding what assistance NYCHA has available for individuals with mobility impairments during the outage. Notice shall occur by robocall and via postings within the affected building and on NYCHA's website.	08/01/19	Completed	NYCHA has instituted Robocalls, posts via NYCHA website, push notifications via its application and provides notices in common areas. Additional protocols of the recently completed elevator Action Plan. The Monitor team has verified NYCHA's compliance with the posting protocols and is in the process of verifying their effectiveness with residents. Ongoing verification by the Monitor is taking place as these communication protocols are implemented.
Exhibit B.C.33	NYCHA will provide the Monitor 24 hours advanced notice of any planned outage, and shall notify the Monitor of any unplanned outage within two hours of NYCHA learning of the outage. Notice shall occur in the method prescribed by the Monitor.		Ongoing	The Monitor has been receiving elevator outage notifications every few hours from NYCHA on a daily basis for the last several months. We will be working with NYCHA to ensure that these notifications contain all necessary information.

AGREEMENT TRACKING

APPENDIX 2

Pests/Waste Management

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.D.35	Within six months of the Effective Date, the Monitor in consultation with NYCHA shall establish reasonable protocols by which Integrated Pest Management ("IPM") professionals shall develop and provide reliable estimates, at least quarterly, of the pest populations in each NYCHA development. NYCHA shall promptly publish these figures, by development and pest type, on its website.	08/01/19	Complete	The Monitor and NYCHA timely drafted and submitted the protocols to SDNY and HUD, which were ultimately approved. NYCHA has selected 20 inspectors. On December 5, 8 and 9, the Monitor's pest expert trained the NYCHA inspectors on how to index pests. NYCHA pest infestation indexing begins February 3, 2020. The quarterly reporting by NYCHA is scheduled to begin after the indexing is complete.
Exhibit B.D.41	Within six months of the Effective Date, NYCHA shall, for any unit that has more than one pest infestation complaint verified by NYCHA staff within twelve months (a) cause a professional using IPM techniques to evaluate the unit and its immediately adjacent units and common areas within 30 days to identify any circumstances specific to that unit that may have contributed to such recurrence (including, but not limited to, unaddressed leaks, proximately located trash, or holes in walls), and (b) address, consistent with IPM principles, any such circumstances within the following 30 days.	08/01/19	In Progress First Targeted Relief requirement completed.	NYCHA still has not met this requirement. NYCHA has completed the First Pest Targeted Relief Requirement of 2,645 residential units with a verified open pest work order plus at least one additional pest work order since January 31, 2018. NYCHA has proposed an Action Plan for the Second Pest Targeted Relief Requirement of approximately 5,000 residential units with at least two verified pest work orders since July 31, 2018. Additionally, NYCHA is developing an Action Plan to address all impacted adjacent units and associated common areas. NYCHA proposed that the requirements of the Paragraph will be complete by mid-May 2020.

AGREEMENT TRACKING

APPENDIX 2

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.D.45	Within six months of the Effective Date, NYCHA shall, no less than once every 24 hours, inspect the grounds and common areas of each building for cleaning and maintenance needs, including pests and trash, and correct such conditions. In particular, NYCHA shall ensure that trash on the grounds or common areas of each NYCHA building is collected and either removed from the premises or stored in a manner that prevents access by pests at least once every 24 hours.	08/01/19	Not Completed	NYCHA still has not met this requirement. NYCHA and the Monitor are developing an Action Plan setting out how NYCHA will establish a Waste Management Department, hire additional caretaker and maintenance staff, work with DSNY to increase weekly trash pickups, and procure additional capital needs such as compactors and bulk augers. Draft will be provided in the first quarter of 2020.

Annual Inspections

Section	Obligation	Agreement Deadline	Status	Monitor Comment
Exhibit B.E.48	By and after ninety (90) days after the Effective Date of this agreement, annual inspections shall include having the person conducting the inspection perform any minor repairs during the inspection.	05/01/19	Complete	NYCHA has implemented this as policy. Monitor has not received information to verify compliance.
Exhibit B.E.49	By one hundred twenty days (120) after the appointment of the Monitor, NYCHA will submit an Action Plan to the Monitor for complying with the requirement to conduct annual inspections and perform minor repairs during such inspections. The Action Plan shall include procedures for (i) on-site completion of minor repairs during inspections, and (ii) the scheduling of other inspection-identified maintenance deficiencies for subsequent repair.	07/01/19	In progress	NYCHA submitted a revised draft Plan on January 16, 2020. Monitor is working with NYCHA, HUD, and SDNY to finalize the Plan.

AGREEMENT TRACKING

New Departments

Section	Obligation	Agreement Deadline	Status	Monitor Comment
VI.C.53	No later than 45 days after the appointment of the Monitor, NYCHA, in consultation with the Monitor, shall establish and maintain a Compliance Department ...	04/15/19	Complete	The Compliance Department has been established and the Monitor is working with NYCHA to ensure it has sufficient staffing and a clear mission. This is true for the Environmental Health and Safety Department and the Quality Assurance Unit as well. See the first Monitor's Report for details.
VI.D.55	No later than 45 days after the appointment of the Monitor, NYCHA, in consultation with the Monitor, shall create an Environmental Health and Safety Department...	04/15/19	Complete	See above.
VI.E.57	No later than 45 days after appointment of the Monitor, in consultation with the Monitor, NYCHA shall create a Quality Assurance Unit...	04/15/19	Complete	See above.
VI.E.59	No later than 60 days after the appointment of the Monitor, NYCHA shall provide HUD, SDNY, and the Monitor with a certification of compliance with paragraphs 53 – 59.	05/01/19	Complete	Monitor has continued discussions with NYCHA to refine and enhance NYCHA's approach. See first report for details.
VI.F.62(h)	By 90 days after the appointment of the Monitor, NYCHA will submit an Action Plan to the Monitor for meeting the requirements in the Agreement regarding PHAS Inspections	05/29/2019	Complete	NYCHA timely submitted a draft PHAS Action Plan to the Monitor. After first rejecting the plan, the Monitor, SDNY, and HUD have worked with NYCHA to revise the Plan which has now been finalized and accepted by the Monitor.

AGREEMENT TRACKING

City Obligations

Section	Obligation	Agreement Deadline	Status	Monitor Comment
VI.A.44(b)	By the end of the 30-day period after the list of candidates is finalized, the City shall select a permanent Chair and CEO for NYCHA from the jointly-developed list of candidates.	04/01/19	Complete	New NYCHA Chair was selected by the City and started his tenure in August 2019.
VI.B.45	No later than 60 days after the appointment of the Monitor, the City shall engage a third-party management consultant selected jointly by the City and the Monitor. The consultant shall examine NYCHA's systems, policies, procedures and management and personnel structures, and make recommendations to the City, NYCHA, and the Monitor to improve the areas examined.	04/01/19	Complete	Management consultant completed its review and issued four reports examining NYCHA's organization and recommending improvements.

APPENDIX 3

Appendix 3– Clearance Attempts from the December 2019 Lead Exceptions Report

Date of CM	Total CM Work Order	Dust Wipe Performed	Dust Wipe Not Performed	DW Attempted Dust Wipe Performed	Not for Not	Initial Attempts Needed Post Data Mining	DW Post
11/4/2019	84	59	25	20			
11/5/2019	42	31	11	8			
11/6/2019	80	49	31	25			
11/7/2019	65	42	23	17			
11/8/2019	31	15	16	16			
11/9/2019	14	5	9	9			
11/10/2019	3	0	3	3			
Grand Total	319	201	118	98			31

Date of CM	Total CM Work Order	Dust Wipe Performed	Dust Wipe Not Performed	DW Attempted Dust Wipe Performed	Not for Not	Initial Attempts Needed Post Data Mining	DW Post
11/11/2019	26	16	10	10			
11/12/2019	72	41	31	29			
11/13/2019	96	55	41	41			
11/14/2019	63	41	22	22			
11/15/2019	66	32	34	31			
11/16/2019	14	6	8	8			
11/17/2019	7	4	3	3			
Grand Total	344	195	149	144		63	

Date of CM	Total CM Work Order	Dust Wipe Performed	Dust Wipe Not Performed	DW Attempted Dust Wipe Performed	Not for Not	Initial Attempts Needed Post Data Mining	DW Post
11/18/2019	93	59	34	32			
11/19/2019	100	65	35	30			
11/20/2019	105	68	37	30			
11/21/2019	89	73	16	15			
11/22/2019	76	47	29	27			
11/23/2019	15	8	7	7			
11/24/2019	14	6	8	8			
Grand Total	492	326	166	149			76

Date of CM	Total CM Work Order	Dust Wipe Performed	Dust Wipe Not Performed	DW Not Attempted for Dust Wipe Not Performed	Initial Attempts Post Data Mining	DW Needed
11/25/2019	100	75	25	23		
11/26/2019	98	72	26	25		
11/27/2019	102	68	34	34		
11/29/2019	57	44	13	12		
11/30/2019	10	4	6	6		
12/1/2019	7	4	3	3		
Grand Total	374	267	107	103	14	

APPENDIX 4

TESTIMONY BY NYCHA FEDERAL MONITOR BART M. SCHWARTZ
HEARING ON NYCHA'S WINTER PREPAREDNESS
NEW YORK CITY COUNCIL COMMITTEE ON PUBLIC HOUSING
WEDNESDAY, JANUARY 15, 2020 – 1:00 PM
250 BROADWAY - COMMITTEE ROOM, 14TH FLOOR, NEW YORK, NY

Chair Alicka Ampry-Samuel, members of the Committee on Public Housing, NYCHA residents and other members of the public: good morning. I am Bart M. Schwartz, the federal monitor overseeing NYCHA's compliance with the settlement agreement it signed with the City, HUD, and the United States Attorney's Office on January 31, 2019. This is my first winter as the federal monitor. From the time the monitorship started in March 2019, one of our main priorities has been to oversee NYCHA's work in preparation for this winter season. Thank you for this opportunity to testify.

I'd like to thank everyone who has worked with us, beginning with the new NYCHA Chair and CEO Greg Russ. The commitment, experience, and creativity that he and his staff have brought to NYCHA has been invaluable. I also want to acknowledge the continuing support and guidance provided by Lynne Patton and other HUD administrators, as well as the United States Attorney's Office and City Hall. Their collaboration is essential for developing comprehensive solutions to NYCHA's problems.

The primary goal of the settlement agreement is to ensure "decent, safe, and sanitary" housing for all NYCHA residents. To do that, the agreement requires NYCHA to improve its performance in certain problem areas -- one of which is its heat and hot water

systems. More often than not NYCHA residents have experienced prolonged heat outages and shortfalls in the winter months. This meant that tens of thousands of NYCHA residents had to struggle through significant heat losses in their homes.

At the outset, it's important to clarify that heating outages are very different from heating shortfalls. Heating outages are development-wide or building-wide outages, or those affecting a particular apartment line/stairwell, whereas heating shortfalls represent the lack of heat in an individual unit or a specific room within a single unit. During a heating shortfall, most other units in the same building or on the same line are not experiencing any heat loss. Our team and NYCHA are looking at both heating outages and shortfalls, although our focus and priority right now are the system-wide heat outages.

The agreement directs NYCHA to make measurable improvements to its heating systems and to develop a heat "action plan," subject to my approval. The purpose of the action plan is to provide a blueprint and strategy for how to reduce heat outages and how to manage them more effectively and expeditiously when they do occur. From my perspective, the heat action plan is really NYCHA's contract with its residents – a contract that sets out in detail how NYCHA will better manage its heating systems so residents receive the services they deserve.

My team has also been working with NYCHA to develop action plans for other problem areas such as mold, lead paint, elevators, pests, and waste. One of my tasks as the Monitor will be to make sure that NYCHA is consistently fulfilling its responsibilities in these “contracts” going forward.

While the action plans provide important road maps for future success, we have been working with NYCHA since the beginning of the monitorship to make meaningful improvements here and now. We have subject-matter experts in heating systems and property management on the monitor team who can educate NYCHA about the most efficient industry practices that exist to date. We also have a team of field examiners, many of whom are retired law enforcement professionals, who review firsthand the work NYCHA is doing on heat, among other areas of the agreement, and then conduct interviews of staff and residents. Based on that information, we can assess NYCHA’s performance, identify problem areas, and escalate issues to senior management.

As I mentioned, we have been working with NYCHA’s heat department since the spring, not only on the action plan, but also as they were in the midst of their pre-season boiler maintenance program. As part of this pre-season process, NYCHA assessed where and what kinds of repairs were likely needed at various developments, given the current state of the individual heating systems, so that NYCHA can better anticipate staffing and equipment demands for the winter. My team continues to review the thoroughness

of this pre-season maintenance program. We have a long way to go and we will continue to work with NYCHA to improve the pre-season process.

One thing I need to acknowledge is the poor condition of NYCHA's heating systems across a significant portion of its developments. Not only are many boilers well past their useful life span, but more vexing are the deteriorating heat distribution systems that transmit heat from the boilers to each apartment. Heating risers inside NYCHA building walls have not been replaced since the buildings were constructed. A properly functioning boiler is of little use if the heat it produces doesn't make it into apartments because of crumbling heating pipes, causing heat shortfalls.

So, in the near-term, we must recognize that although some heating outages may be prevented by better pre-season maintenance, other outages can and will occur for these reasons which do not have a quick fix. Having an action plan in place is a necessary first step for better management of both the outages and NYCHA's heating plants and boilers. After working with NYCHA for several months on the heat action plan, I approved it on December 5, and that plan is available on our website nychamonitor.com.

Included with the overall heat action plan were individual heat action plans for the 20 developments that NYCHA and our team has identified as having the poorest performance. At the end of last month, NYCHA provided my team with heat action

plans for 50 additional developments with poor heat performance. These individual action plans create a structure and a proactive strategy to both reduce the number of outages and to shorten their length.

When we started our work, there was a pervasive sense of resignation by many at NYCHA that the heating problems could not be solved. We discovered in our joint planning sessions that NYCHA would first identify its resource limitations and work backwards from there, as opposed to focusing on what resources - staff, assets, supplies, data - were needed to operate its heating systems effectively. I believe we were able to persuade them that if they continued to limit their thinking inside their current resource constraints, which are many, they would never get beyond those limitations and any action plan would fail. Understandably, NYCHA had a difficult time with this unconstrained way of planning when we started our conversations for the heat action plan. My team has worked hard this last year to start to turn that attitude around.

We believe that the new heat action plan already has begun to make a difference. The heat action plan details how NYCHA will accomplish the goals of:

- 1) reducing outages by doing what can be done to keep its current systems in operation,
- 2) fixing breakdowns quickly and efficiently by mobilizing staff, equipment, and parts needed for repair,

- 3) effectively communicating outage information to residents and staff so all can make appropriate adjustments, and
- 4) providing needed assistance to residents during substantial outages.

NYCHA recognizes that prolonged heat outages are unacceptable and that it needs an “all hands on deck” approach to resolve them. During such outages, the action plan provides for the rapid assembling of a heating “war room” comprised of all the key departments within NYCHA that will mobilize to both fix the breakdown and better assist residents. Beyond the action plan, I have recommended that the utility companies and key city agencies designate a senior person within their organizations as a NYCHA liaison who can facilitate an expedited response to a NYCHA emergency. A NYCHA emergency should be every agency’s emergency.

When outages cannot be resolved quickly even with better coordination, the action plan calls for alternative heated community spaces to be opened. These heated spaces must be available to residents affected by heat outages that are expected to last for a substantial duration of time. NYCHA will be required to provide shuttle services to transport the residents to these warming centers. That part of the action plan comes with its own obstacles, as most NYCHA community centers are currently not able to serve as heating centers. My team and I have seen and heard first-hand from the residents and center operators that, more often than not, community centers have their own large capital improvement needs. Some are struggling to remain open due to

recurring violations, and others are not currently operational. Much work is needed to bring the community centers into a condition which will allow them to serve as alternative providers of heat during winter seasons.

The settlement agreement and the heat action plan also require NYCHA to conduct root-cause investigations for heat outages lasting more than 12 hours with the purpose of learning how to better prevent or at least mitigate them in the future. NYCHA's newly created Environmental Health and Safety unit is currently responsible for these investigations. The monitor team is exercising its oversight to make sure NYCHA's root-cause investigations are thorough and complete. From what we have seen so far, their investigations have provided unbiased critiques independent from the heating department. They have called for smarter mobilization of heating staff during nighttime hours and better preparation during the summer, consistent with our own findings. Studying our findings will give NYCHA an even better understanding of what heating systems need replacement and how to better focus the pre-season maintenance program for next winter.

While we are hopeful that the protocols and procedures in the heat action plan will improve NYCHA's outage performance, the bottom line is that the heating equipment in the worst shape must be replaced. To that end, in November I approved NYCHA's action plan for using up to \$450 million in state reimbursement funds to replace 108 aging boilers and heating plants. To receive reimbursement, NYCHA must stick to a

fairly rigorous capital construction schedule we have created. My team is working with NYCHA every step of the way to ensure that NYCHA stays on track and that the work is done properly. NYCHA has been doing preparation work for months leading up to my approval of the \$450 million action plan, as required with any major capital project.

My role as the Monitor going forward is to make sure that NYCHA is following the procedures set out in the action plan, that NYCHA is accurately reporting its heat outages, and that we help NYCHA learn what can be done to avoid them in the future. It is important to remember that these action plans are meant to be living documents and should reflect our learnings from current and future heat outages. This plan will be amended and improved as we make more progress.

As a part of that process, my team and I, along with Chair Russ and heat department supervisors, are meeting frequently during the heat season to assess how NYCHA is doing and what new strategies are needed. In addition, NYCHA's heat department director has been conducting weekly meetings with his staff to discuss all the heating outages of the prior week. My team also participates in these meetings and we will ensure that what is learned in the field is captured and used for both operational and capital improvements moving forward.

So, my approval of the heat action plan is really just a beginning. As with any plan, the measure of its quality is shown by the results it produces and the impact it has on the

residents. Measuring those results requires reliable and complete performance data. This type of data is not only mandated under the agreement, it's an important aspect of NYCHA's obligation to residents and the public. As part of this effort, we have been helping NYCHA to develop and analyze heat system data from its own MAXIMO database. This information should allow NYCHA to better identify and manage recurring problem areas and to focus its resources where they will have the most benefit.

The monitor team has created a heat dashboard to capture, analyze, and establish baseline measurements for critical heat statistics so that NYCHA's progress can be tracked more accurately. This includes, among other things: 1) repair staff response times, 2) accurate recording of outage lengths, 3) root-causes for outages, and 4) the nature of the repairs made. [Mr. Schwartz will explain heat dashboard.]

NYCHA's IT department and heat staff are a part of this process, the idea being that together we will develop a comprehensive heat data structure for the first time ever. Our expectation is that NYCHA will use the data to provide improved heating services, and we will use it for our purposes of oversight and compliance. You should have in front of you a snapshot of the data analysis we were able to perform so far.

Early statistics indicate that the beginning of this heating season has had fewer outages than last year. We compared the current heating season from October 18, 2019, up

until December 31, 2019, to last year's numbers for the same time period. The statistics are as follows:

OUTAGES AS OF 12/31

Brooklyn 2018-2019: 82
Brooklyn 2019-2020: 74

Bronx 2018-2019: 89
Bronx 2019-2020: 44

Manhattan 2018-2019: 94
Manhattan 2019-2020: 68

Queens & Staten Island 2018-2019: 13
Queens & Staten Island 2019-2020: 8

NYCHA still has much work ahead to provide residents with acceptable levels of heat and hot water on a consistent basis. We are not even half way through the winter. There is no easy fix to any of the areas of the agreement, but with a heat action plan in place and boiler replacements scheduled over the next few years, NYCHA should be able to take the necessary steps to improve its heat performance.