

NYCHA MOLD TRAINING



1

Welcome NYCHA Staff

- Registration & sign-in/out
- Training materials
- Training Agenda
- Training Goals
 - Understand importance of controlling mold & moisture
 - Be able to use the tools, practices & procedures
 - Be ready to get this done!



2

Welcome back NYCHA Staff

- This training is presented by EEA under contract to NYCHA
- EEA is an accredited asbestos, lead & mold training provider
- We look forward to working with you to provide this very important training
- It's critical to public housing in NYC
- NYCHA succeeds when YOU succeed!
- [General Manager's Intro](#)



3

Why Are We Here Today?

- Exposures from residential excessive moisture and mold have been associated with increased risks for respiratory symptoms, asthma, hypersensitivity pneumonitis, rhinosinusitis, bronchitis, and respiratory infections.
- NYCHA staff must take action to detect and correct leaks, condensation problems, and floods as soon as they are discovered. The potential for building structural damage, mold growth, and increased adverse health effects can and must be reduced by limiting the build-up of indoor moisture.



4

Allergic Responses

Asthma

- Molds can trigger asthma attacks in persons allergic (sensitized) to molds.
- Asthma is a major problem in New York City. In some low-income parts of New York City, as many as one in four children have asthma.
- [What is asthma](#)



5

Irritant Effects

Mold exposure can irritate the eyes, skin, nose, throat, and lungs of both mold-allergic and non-allergic people.



6

Degrees of Exposure

- "The dose makes the poison" (in [Latin](#): *sola dosis facit venenum*) – Paracelsus (1538 AD)
- a substance can produce the harmful effect associated with its toxic properties only if it reaches a susceptible biological system within the body in a high enough concentration
- Occupants or remediation workers disturbing large areas of mold growth face greater exposure potential, and thus, greater potential for adverse health effects.



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

7

Golden Rule for Mold Exposure Safety

Minimizing mold-related exposures will reduce the possibility of health impacts on occupants and workers.

- As the potential for exposure increases, the need for protective measures increases.
- Workers can reduce exposure potential by proper use of personal protective equipment (PPE).
 - Respirators (Minimum N-95)
 - Gloves
 - Protective clothing
 - Goggles

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

8

Health Issues for Workers

- Mold assessment and remediation employees with persistent health problems that appear related to mold should see a physician.
- Referrals to physicians trained in occupational, environmental or allergy medicine may be needed.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

9

Common-Sense Approach

- **Small amounts of mold growth in homes and buildings are common occurrences, that for the majority of people present minimal health risks.**
 - The solution is to fix the moisture problem and clean up the mold quickly.
- **Large areas of mold growth present a more likely risk of exposure and adverse health effects for some people.**
 - Large areas of mold growth indicate more extensive water damage/moisture intrusion in the building.
 - Additional and more extensive measures should be used during remediation to protect both workers and occupants of the building.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

10

How Mold Grows

- Finds suitable conditions
 - Water
 - Food
 - Temp (hot or cold)
- Grows
- Spreads

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

11

Public (Housing) Enemy #1



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

12

Localized Mold Contamination



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

13

Major Mold Infestation



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

14

NYCHA Facilities

- 2,413 buildings in 325 developments over five boroughs; 769 facilities; 177,666 apartments; 404,000 residents
- 70 percent of NYCHA buildings built before 1969.
- Building materials that can be affected by mold & moisture include:
 - Plaster
 - Sheetrock
 - Wood studs/framing
 - Cabinets
 - Caulking & grout

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

15

Where Does Mold Grow in NYCHA?

- The paint on plaster, concrete, and sheetrock walls/ceilings
- The paper covering of sheetrock walls/ceilings (front/back and top/bottom sides)
- The covering of pipe-wrap insulation in wall cavities
- Bathroom tile grout and caulking
- Kitchen and bathroom cabinetry
- Wood framing materials in wall cavities



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

16

Mold Root Causes – Changes Overview

Twenty-nine (29) Root Causes are organized by [five \(6\) general categories](#) how the problem was caused.

- I. Sealant Related Issues – Issues that can be resolved by removing and replacing old caulking.
Example: Caulking around a bathtub.
- II. Leak Issues – Issues caused by a leak other than a sealant issue.
Example: Crack in exterior (façade) is causing a water enter the unit.
- III. Resident-Caused – Issues that can be prevented due to adjustments to resident education and behavior.
Example: Resident is not opening a window after a shower.
- IV. Ventilation – Issues that are a result of inoperable roof fans and/or lateral duct issues.
Example: A clog in the lateral duct is preventing air from flowing into the apartment.
- V. Other – Issue(s) are being caused due to reasons outside of the four categories previously listed.
Example: Condensation (sweating on the pipes) due to the damaged or missing insulation.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

17

Shower Vapor Condensation



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

18

Condensation on Cold Water Pipes In Wall Cavities



Missing insulation on cold water riser



Damaged insulation on cold water riser



Missing insulation on cold water supply t

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

19

Toilet Condensation - In Apartment



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

20

Plumbing Leaks/Flooding



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

21

Toilet Condensation - From Above



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

22

Perimeter Wall Condensation



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

23

Roof Leaks



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

24

Façade Leaks



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

25

Resident Related

- Boiling water or humidifier
- Not opening windows during/after shower
- Broken dishwasher
- Broken washing machine
- Blocked vent
- Other

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

26

Efflorescence



- Efflorescence is the residue that's left behind when water seeps through concrete, stone, or brick.
- Salt deposits leave a white residue that resembles mold.
- Won't grow or spread, and isn't a fungus.

NYCHA Mold Inspector

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

27

Preventing Mold In NYCHA



- Mold growth is always associated with excessive moisture problems.
- How do we **prevent or control** excessive moisture and what are the **Root-Causes** of excessive moisture?

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

28

Preventing Mold Growth

Simple Steps

- keep exterior moisture out of the building
- control moisture from internal sources

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

29

Preventing Mold Growth

- It's important to establish a cooperative partnership between NYCHA staff and residents so that conditions that require attention are identified and dealt with promptly.
- NYCHA staff and residents should take action to detect and correct leaks, condensation problems, and floods as soon as they are discovered.
- The potential for building structural damage, mold growth, and increased adverse health effects can and should be reduced by limiting the buildup of indoor moisture.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

30

UPDATED - Top Ten Things NYCHA Staff Should Know About Mold & Moisture

1. Potential health effects and symptoms associated with exposures to mold and excessive moisture include allergic reactions, asthma, and other respiratory complaints.
2. Mold can be found almost anywhere; it can grow on virtually any substance if moisture is present. For example, there are molds that can grow on sheetrock, painted plaster and concrete, wood, paper, carpet, foods, and even dusty inorganic building materials.
3. There is no practical way to eliminate all mold and mold spores in the indoor environment; the way to control indoor mold growth is to control moisture.
4. If mold is a problem in an apartment or building, we must clean up the mold and eliminate sources of moisture.
5. Fix the source of the water problem or leak to prevent mold growth, including repairing leaky roofs.



31

Top Ten Things NYCHA Staff Should Know About Mold & Moisture

6. Reduce indoor humidity (to 30-60%) to decrease mold growth by: venting bathrooms and kitchens; using air conditioners and de-humidifiers; and increasing ventilation. Staff shall ensure that mechanical ventilation is functioning (clear lateral ductwork and operable roof fans). Further, staff can use a hygrometer to check the relative humidity in a resident's apartment
7. Clean and dry any damp or wet building materials and furnishings within 24-48 hours to prevent mold growth.
8. Clean minor levels off of hard surfaces with water and detergent, and dry completely. Absorbent materials, such as sheetrock, that are moldy will need to be replaced.



32

Top Ten Things NYCHA Staff Should Know About Mold & Moisture

9. **Prevent condensation: reduce the potential for condensation on cold surfaces by assuring that cold water pipes in wall cavities are properly insulated.**
10. If needed as a result of asthma, individuals with mold and/or excessive moisture in their apartments are entitled to reasonable accommodations from NYCHA.



33

34

Baez Lawsuit

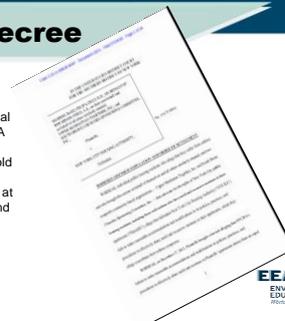
Maribel Baez vs NYCHA ("Baez") is a class action lawsuit filed December 2013, as a violation the Americans with Disabilities Act for the conditions of mold and excessive moisture for residents suffering from asthma.



35

Consent Decree

- In partnership with the Special Master and Plaintiffs, NYCHA has revised its standard procedure for addressing mold complaints.
- These changes were piloted at 38 developments in 2017, and will be launching citywide in January 2019



36

NYCHA Purpose

- Standard Procedures establish responsive measures to mold and its root causes in NYCHA public housing locations, and creates protocols to protect the health of residents and staff when remediating mold and identifying and correcting its root causes.



37

Standard Procedures - Inspections

- All inspection work must conform to the protocols in the following documents:
- GM 040:14:1, Mold/Mildew Control in NYCHA Residential Buildings
 - NextGeneration NYCHA Informer Work Management (iWM) handheld application



38

Standard Procedures - Remediation

- All remediation & related maintenance work must conform to the protocols in the following documents:
- GM 040:14:1, Mold/Mildew Control in NYCHA Residential Buildings, including Appendix A – Remediation Methods
 - SP 040:18:2 Revised, Maintenance Tasks – Dust Control and Clean Up in Apartments, which establishes Work Area Preparation/Performance Levels
 - Interim Guidance on Wall Breaks
 - Interim Guidance on Pipe Insulation



39

Performance Metrics

- Average number of days to complete repairs and close mold work orders.
- Average number of days to complete initial inspections.
- Percent of mold work orders for reoccurring mold.



40

Non-compliance

- If unsatisfactory work is identified during a quality assurance inspection in Section VIII.H, or at any other time, supervisory staff must take one or more of the following actions:
 - Identify areas for follow up training for the employee and ensure training is scheduled and provided.
 - Reinforce with the employee(s) the job expectations, accountabilities, and the progressive discipline process.
- Failure to comply with the requirements of this Standard Procedure may result in disciplinary actions.



41

Quality Assurance Deficiencies

- As a result of a quality assurance review, NYCHA has found a small group of staff performance shortfall when it comes to mold inspections and remediation.



42

Inspectors Performance Shortfalls

- failure to use/properly use each of the Mold Busters tools during the inspection process (particularly Testo kit and app)
- failure to conduct a complete mold inspection (meaning accounting for all 3 indicators: signs of visible mold, water damage, moisture reading)
- failure to make accurate entries (square footage of mold)
- failure to use/properly use borescope to inspect wall cavities



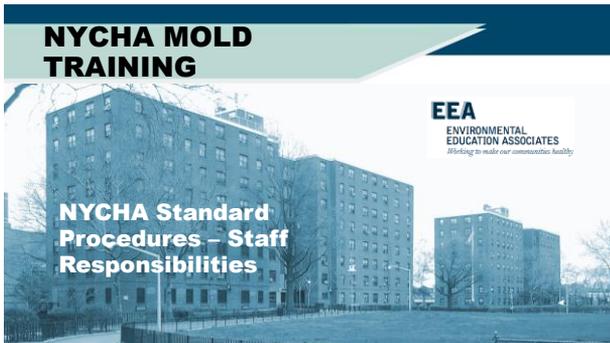
43

Remediators Performance Shortfalls

- failure to use/properly use the anemometer and Testo app to measure exhaust vent output (bathrooms and kitchens)
- failure to use mold resistant paint as required based on the remediation methods and development construction
- failure to check/confirm that pipes are properly insulated when checking for excessive moisture/leaks in wall cavities
- failure to use/properly use the borescope to inspect wall cavities
- failure to ensure mold impacted surfaces are
 - 1. cleaned with the appropriate detergent solution/fungicide cleaner
 - 2. completely dry prior to moving forward in the mold remediation process.



44



45

Office of Mold Assessment & Remediation (OMAR)

1. Monitor key development-level mold-related indicators including, but not limited to, parent mold work order completion time frames, and mold recurrence and unfounded inspection rates.
2. Perform random inspections at developments with high rates of mold recurrence or unfounded inspections and report findings to the neighborhood administrator.
3. Monitor the efficiency of mold work order scheduling and provide follow up recommendations to the neighborhood administrator or skilled trades deputy director, as applicable.



46

Property Management

Property management department director shall:

- a) Monitor key development-level mold-related indicators including, but not limited to, scheduled appointments, parent mold work order completion time frames, and mold recurrence and unfounded inspection rates.
- b) Assign supervisory staff to perform random inspections at developments, as needed.



47

Property Management

Neighborhood Administrator shall:

- a) Monitor development property management operations and hold property managers and property maintenance supervisors accountable for monitoring all mold related work orders in Maximo and addressing conditions in compliance with protocols established for remediating mold and identifying and correcting root causes.
- b) Investigate and respond to inspection reports prepared by centralized performance management staff.



48

Property Management

- The Property Management Department skilled trades deputy director shall
- a. Monitor skilled trades administrators, borough schedulers, and skilled trades supervisors and hold them accountable for monitoring all mold-related work orders in Maximo and addressing conditions in compliance with protocols established for remediating mold and identifying and correcting root causes.
 - b. Respond to recommendations from the Office of Mold Assessment & Remediation.
 - c. Skilled trades administrators shall schedule skilled trades workers to complete complex repairs within 15 days.



49

Borough Scheduler

- The Borough Scheduler shall:
- a. Review the Maximo scheduled appointments screen daily.
 - b. Monitor Maximo daily for new parent mold and quality assurance inspection work orders.
 - c. Monitor Maximo for the timely completion of parent and child mold work orders and immediately address delays



50

Borough Scheduler

- The borough scheduler shall:
- d. Ensure immediate scheduling of parent and child work orders to prevent delays.
 - 1) Initial inspections must be scheduled for a date no more than 4 calendar days after the date of the parent work order creation.
 - 2) Schedule child work orders for simple repairs to be completed by Property Management within 7 days.
 - 3) Quality assurance inspections must be scheduled and completed between 30-45 days after the last child work order is closed



51

Borough Scheduler

- The borough scheduler shall:
- a. Assign in Maximo the property maintenance supervisor, assistant property maintenance supervisor, or property manager to work orders to conduct initial and quality assurance inspections.
 - b. Identify and schedule all work orders with the status of Waiting To Schedule and Failed to Schedule.
 - c. Reschedule appointments for mold related work orders as needed.
 - d. Coordinate the scheduling of skilled trades workers with the Property Management Department Planning Unit skilled trades administrator; the director of the Maintenance, Repair & Skilled Trades Department; and the Healthy Homes Lead Hazard Control Department Abatement and Clearance Unit.



52

Property Management

- Property manager shall:
- a) Closely monitor the customer service delivery aspects of this Standard Procedure to ensure NYCHA's commitments to residents are addressed.
 - b) Work closely with the property maintenance supervisor to ensure that property management staff:
 - (1) Visit apartments for all mold work appointments as scheduled.
 - (2) Record resident outreach attempts in the Tenant Data System (TDS)



53

Property Management

- Property maintenance supervisor shall:
- a. Conduct mold initial inspections and quality assurance inspections using mold-related tools and equipment.
 - b. Work closely with property maintenance staff to ensure that property maintenance staff:
 - (1) Accompany the property maintenance supervisor during initial inspections and quality assurance inspections, as required.
 - (2) Visit apartments for all mold work order appointments as scheduled.



54

Property Management

The assistant property maintenance supervisor shall perform the tasks in Section 7.a-b directly above in addition to the property maintenance supervisor.



55

Maintenance Staff

- Accompanies inspectors on the initial inspection, or to be on call, to immediately remediate mold and related conditions or to identify and correct root causes, when possible.
- Must bring an anemometer, a borescope and tools appropriate for making wall-breaks, and a HEPA vacuum. If a wall break is required, the inspector must conduct the wall break with the assistance of a maintenance worker as part of the initial inspection.
- Completes child work orders for vent cleaning, roof fan repairs and other maintenance tasks.
- All simple repairs must be completed within 7 calendar days from the date the parent mold work order was created.



56

Skilled Trades Department

- Completes root cause repairs according to trade
- Utilizes Remediation Methods per SP 040:14:1 (Appendix A)
- Complex repairs must be completed within 15 calendar days from the date the parent mold work order was created.



57

Maintenance, Repair & Skilled Trades Department

The director shall

- a. Monitor MRST skilled trades administrators and MRST skilled trades supervisors and hold them accountable for monitoring all mold-related work orders in Maximo and addressing conditions in compliance with protocols established for remediating mold and identifying and correcting root causes.
- b. Respond to recommendations from the Office of Mold Assessment & Remediation.



58

Maintenance, Repair & Skilled Trades Department

The director shall

- a. Monitor MRST skilled trades administrators and MRST skilled trades supervisors and hold them accountable for monitoring all mold-related work orders in Maximo and addressing conditions in compliance with protocols established for remediating mold and identifying and correcting root causes.
- b. Respond to recommendations from the Office of Mold Assessment & Remediation.

MRST skilled trades administrators shall schedule skilled trades workers to complete complex repairs within 15 days.



59

Lead Hazard Control Department

The supervisor of the Abatement and Clearance Unit shall oversee staff for large remediation jobs and coordinate scheduling work with Environmental Field Operations in MRST and the borough scheduler

NOTE: Once abatement work is complete, Property Management Department staff is responsible for coordinating and scheduling remaining repairs.



60

Employees Who Remediate or Correct the Root Causes of Mold

- Employees shall follow the protocols in Section VIII.C and D, as applicable, when remediating mold and related conditions or correcting probable root causes.
- Any employee performing work in a resident apartment who observes a mold condition shall create a parent mold work order either on the handheld device or submit a paper mold work order to the property management office.



61

Maintenance & Skilled Trades

Employees must document the materials used in the Materials section of the mold-related child work order including, as applicable, the specific paint (mold resistant or standard) and sheetrock (mold resistant or standard).



62

SP-Update – Reasonable Accommodations

- If needed as a result of a medical disability or a breathing or respiratory disorder including asthma, residents in apartments with mold and/or excessive and/or uncontrolled moisture conditions are entitled to reasonable accommodations from NYCHA. Such accommodations may include, but are not limited to, the following:
 - a. The right to install and operate an additional air conditioning unit in their apartment if the electrical system permits an additional unit;
 - b. Temporary relocation during mold and moisture remediation;
 - c. Permanent relocation to other NYCHA housing if the apartment is uninhabitable and another apartment is available;
 - d. The use of enhanced dust suppression methods during mold remediation.



63

SP-Update – Reasonable Accommodations

- Property management staff or CCC customer information representatives must check the "reasonable accommodation" flag on the Maximo mold work order or Siebel service request if a resident asks for a reasonable accommodation.
- See Standard Procedure 040:12:1, Reasonable Accommodations in Housing for Applicants, Public Housing Residents, and Section 8 Voucher Holders, to learn more about the responsibilities of NYCHA staff to review reasonable accommodation requests, and the applicable terms, forms, and policies for reasonable accommodations.



64

NYCHA MOLD TRAINING



65

Standard Procedure Update – Creating Mold Work Orders

- When a resident calls the Customer Contact Center (CCC) to make a service request involving mold or mildew, a parent mold work order is created in Maximo. The resident is required to select a scheduled date for the initial inspection within 4 calendar days of the date of the call.
- If the resident is unable to schedule a date within 4 calendar days of the date of the call, the resident is advised that NYCHA will visit the apartment the same day in an attempt to conduct the inspection; and that NYCHA will return to the apartment within 48 hours to reattempt to conduct the inspection and may use its Right of Entry to access the apartment for that purpose.



66

Standard Procedure Update – Creating Mold Work Orders

NOTE: When residents are advised in the morning of a business day, the same day means that NYCHA will visit the apartment to attempt to conduct the inspection by that afternoon. When residents are advised in the afternoon of a business day or on weekends or holidays, the same day means that NYCHA will visit the apartment to attempt to conduct the inspection by the morning of the next business day.



67

SP Update – Supervisory Review of all Mold Work Orders

The borough scheduler must review all mold work orders in Maximo at least daily.

- If an initial inspection generated through a call to the CCC or via the My NYCHA App is not scheduled, the borough scheduler must assign an inspector to visit the apartment that same day to conduct the initial inspection, or issue NYCHA Form 042.727, 48 Hour Notice of Health and Safety Repairs to the apartment.



68

Scheduling Appointments at the Development – Note!

Initial inspections will be scheduled for a date within 4 days of the creation of the parent mold work order by the Borough Mold Scheduler



69

Scheduling Appointments at the Development

- Siebel compiles the list of residents to remind them through robocalls of their maintenance or inspection appointments. The day before scheduled maintenance or skilled trades appointments, Siebel makes these robocalls.



70

Scheduling Appointments at the Development

The property manager ensures that a housing assistant, receptionist, or other property management staff schedule the following appointments:

- Appointments for quality assurance inspections.
- Follow up appointments for any of the above.
- If the appointment is successfully scheduled, the property manager ensures that the appointment date is entered in Maximo.



71

Scheduling Appointments at the Development – Note!

All attempts to contact residents must be recorded in the Interview Details (Option 8) in the Tenant Data System (TDS).



72

Inspection Procedures

On the scheduled date provided on the parent mold work order, the inspector visits the resident's apartment to:

- inspect the mold condition
- identify the probable root cause(s)
- determine appropriate next steps to remediate the mold, any related conditions, and correct the root cause(s).



73

Inspection Procedures – NOTE!

Initial inspections are performed using the handheld device. If a handheld device is not operating during the initial inspection, the inspector must record the inspection results on a Maximo paper mold inspection work order and immediately enter the results into Maximo following the initial inspection.



74

Preparing For The Mold Initial Inspection

Prior to visiting the apartment on the day of the initial inspection appointment, the inspector:

- Reviews the Maximo work order history for the apartment to determine if there is a history of mold or moisture complaints.
- Checks the mold inspection tool kit to ensure that the following instruments are in working order: anemometer, hygrometer, and moisture meter.



75

Preparing For The Mold Initial Inspection

- Assigns a maintenance worker to accompany them on the initial inspection, or to be on call, to immediately remediate mold and related conditions or to identify and correct root causes, when possible. The maintenance worker must bring a borescope and tools appropriate for making wall-breaks.
- Must make a courtesy call to the resident via the handheld device on the way to the initial inspection to remind them of the inspection. If the resident does not answer the call, the inspector must still go to the apartment at the scheduled time.



76

Preparing For The Mold Initial Inspection – NOTE!

If the resident or other adult is not home to allow access to the apartment for a scheduled mold related appointment, see Section VIII.F, Tenant Not Home Policy.



77

Discussing The Mold Condition With The Resident

Upon arriving at the apartment, the inspector:

1. Makes best efforts to interview an adult listed on the household composition about any history of mold and moisture in the apartment
2. Adds the information to the handheld device if there is a history



78

Conducting The Initial Inspection

The inspector conducts the initial inspection using the handheld device. The inspector:

1. Visually inspects the room identified in the mold work order for mold growth and records the estimated square footage of mold on each wall (1-4), floor, ceiling, and any components.
2. Visually inspects the room for water damage and records the location of the water damage (e.g. the specific wall(s), floor, ceiling, or component).
3. Must use the moisture meter to measure the walls, floor, ceiling, and components in the room for subsurface moisture and records the measurement.
4. **NEW – Must take multiple measurements of each surface or component and record if a measurement is equal to greater than 599**

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

79

General Evaluation Of Room Conditions

If a mold, water damage, or moisture (i.e., a wet measurement) condition is found, the inspector must conduct a general evaluation of the room:

1. Records the surface structure (e.g. concrete, plaster, sheetrock) and framing structure (e.g. wood, steel) of the room's walls, floor, ceiling, and component(s).
2. Uses the hygrometer to take a humidity reading of the room and records the humidity level.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

80

Standard Procedures – Update - Inspections

While the inspector is evaluating the opposing side of common walls in adjoining rooms and common areas, if mold conditions are identified in an adjoining room that are not likely from the same root cause, the inspector shall create a parent mold work order on the handheld device. The inspector should complete this mold work order for the adjoining room at the time of the initial inspection.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

81

General Evaluation Of Room Conditions

If the room is a kitchen or bathroom:
Indicates if there is mechanical ventilation

- If there is mechanical ventilation:
 - The inspector checks the ventilation by using the anemometer to take an air flow measurement in cubic feet per minute (CFM) and records the result in the handheld device.
 - Maximo automatically generates child work orders:
 - To clean the horizontal vent ductwork.
 - To check the roof fan if the CFM is less than 25.



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

82

General Evaluation Of Room Conditions

If the room is a kitchen or bathroom: (Cont.)

If there is a window:

- The inspector checks that the window is operating properly and records the result in the handheld device.
- Maximo automatically generates a child work order to repair the window if it is not operating properly.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

83

General Evaluation Of Room Conditions

If the room is a bathroom:

- Checks if the toilet base is caulked and records the result in the handheld device.
 - (a) Maximo automatically generates a child work order to caulk the toilet base if it is not caulked.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

84

General Evaluation Of Room Conditions

- Visually inspects the room for signs of pest infestation and records the results in the handheld device.
- Maximo automatically generates a child work order for an exterminator when there is evidence of pests.



85

Identifying The Probable Root Causes & Remediation Methods

- The inspector determines the probable root cause(s) for any wall, floor, ceiling, or component identified in Section VIII.B.3.a above as having mold, water damage, or moisture (i.e. a wet measurement).
- The inspector selects on the handheld device a probable root cause from the following options: (see next slide)



86

Mold Root Causes

The fundamental reason(s) for the occurrence of mold, water damage or moisture.

- Identify and select the most correct root cause(s) to ensure the condition does not reoccur – up to four (4) can be selected.
- Root cause(s) might often be not visible at first and require a comprehensive investigation to identify.



87

Mold Root Causes – Changes Overview

Twenty-nine (29) Root Causes are organized by five (5) general categories how the problem was caused.

- I. Sealant Related Issues – Issues that can be resolved by removing and replacing old caulking.
Example: Caulking around a bathtub.
- II. Leak Issues – Issues caused by a leak other than a sealant issue.
Example: Crack in exterior (façade) is causing a water enter the unit.
- III. Resident-Caused – Issues that can be prevented due to adjustments to resident education and behavior.
Example: Resident is not opening a window after a shower.
- IV. Ventilation – Issues that are a result of inoperable roof fans and/or lateral duct issues.
Example: A clog in the lateral duct is preventing air from flowing into the apartment.
- V. Other – Issue(s) are being caused due to reasons outside of the four categories previously listed.
Example: Condensation (sweating on the pipes) due to the damaged or missing insulation.



88

I. Mold Root Causes – Sealant Related Issues

Issues that can be resolved by removing and replacing old caulking or grouting.
Example: Caulking around a bathtub.

Caulking - Is a material used to seal joints or seams against leakage in various structures and piping. Maintenance and Plaster.

Grouting – A dense fluid which is used to fill gaps or used as reinforcement in existing structures. Grout is generally a mixture of water, cement, and sand. Grout is thin so it flows readily into gaps. Bricklayer.



89

I. Mold Root Causes – Sealant Related Issues

- Caulking DML (Maintenance)
The maintenance worker will follow-up on this work order and do the caulking.
- Grouting DML (Bricklayer)
A bricklayer, craft, will follow-up on this work order and do the grouting.
- Grouting DML (Plasterer)
A plasterer, craft, will follow-up on this work order and do the grouting.
- Grouting/ Caulking DML (Plasterer)
A plasterer, craft, will follow-up on this work order and do the grouting / caulking work.
- Grouting/ Caulking DML (Bricklayer)
A bricklayer, craft, will follow-up on this work order and do the grouting/ caulking.



90

Mold Root Causes



IWM App will have a pop-up option to view a definition of each Root Cause to help you make an informed decision.



91

II. Mold Root Causes – Leak Issues

Issues caused by a leak other than a sealant issue.

- Leak Around Window
Lack of sealant around the window that causes water to penetrate.
- Leak Through Façade
A crack or damaged/missing mortar affecting the exterior wall.
- Leak From Above/Beside - Investigate
There is an active leak from a unit above or beside the unit with a mold condition.
- Leak From Above * – Previously Identified
There was a leak that was abated but mold/ water damage remain present.
- Plumbing Leak - In Unit
A pipe leaking within the wall cavity requiring a wall break.



92

II. Mold Root Causes – Leak Issues (continued)

- Roof Leak - Non Capital
Roof replacement or repair is required.
- Sink Supply Line Leak
Caused by a leak(s) in the supply line.
- Sink Waste Line Leak
Caused by a leak(s) in the waste line.
- Toilet Leak
Active leak coming from the toilet.



93

II. Mold Root Causes – Leak Issues (continued)

Leak From Above - Previously Identified
Previously Identified should be selected when the root cause or remediation work for the mold, water damage, or wet condition had been identified or abated by Property Maintenance staff or Skilled Trades on a prior work order.

A note and pictures are required for this root cause.



94

II. Mold Root Causes – Leak Issues (continued)

Leak From Above - Previously Identified *

- 1) Pre-inspection to look-up leak history for the specific unit.
- 2) Does not cancel or duplicate previous generated tickets.
- 3) Escalates the matter if root cause is being caused by something else if it keeps reoccurring.

Reoccurrences are signs that the root cause has not been found.



95

III. Mold Root Causes – Resident-Caused

Issues that can be prevented due to adjustments to resident education and behavior.

- Examples:
- Not opening the window for ventilation during, or after, a shower.
 - Covering the roof fan vent.
 - Improper installation of a dishwasher or washing machine.
 - Improper installation of a clothing dryer in the apartment.



Select this **ONLY** when there is proof that the resident's direct behavior is the cause.



96

III. Mold Root Causes – Resident-Caused

- Resident-Caused (Code 1)
Resident doesn't open the window or door after taking a shower
- Resident-Caused (Code 2)
Dishwasher was installed improperly.
- Resident-Caused (Code 3)
Washing machine was installed improperly.
- Resident-Caused (Code 4)
Vent is blocked or covered.



- Resident-Caused (Code 5)
Clothing dryer was installed improperly.
- Resident-Caused (Code 6) *
Other – the option was not listed.



97

III. Mold Root Causes – Resident-Caused. (continued)

Resident-Caused by Other Actions (Code 6) *
Mold Busters Education will be needed for the resident(s) for future prevention of mold. A mandatory inspection will be needed to find the exact reason(s).

A note and pictures are required for this root cause.



98

III. Mold Root Causes – Resident-Caused. (continued)

Resident-Caused by Other Actions (Code 6) *

Examples:

- Excessive boiling of pots.
- Unbalanced hot/cold temperatures in the unit and/or units above, below, or adjunct.

A picture and an explanation is needed for the reader to understand the reasoning for selecting this root cause.



99

V. Mold Root Causes – Other

- **Toilet Bowl/ Tank Needs Barrier**
Toilet tank is in direct contact with the surface of the wall, allowing condensation to transfer across surfaces.
- **Tub Surround DML**
Water is penetrating through missing or damaged areas of the tub surround.
- **Bathtub Shower Issues**
Bathtub is missing, faucet is leaking, faucet is running, and/or faucet is dripping.
- **Pipe Insulation DML**
Damaged or missing pipe insulation resulting in condensation (or sweating) on pipe surfaces. A wall-break is required to diagnose this problem.
- **Other *** This option should be selected if the root cause is not listed or not evident through the standard assessment practices.



100

SP-Update

Lead-safe work practices and RRP certified workers must be used if (i) Maximo identifies that RRP work is required (the apartment is presumed or known to contain lead-based paint) and (ii) any work would disturb more than 2 square feet of a painted surface per room, or more than 10 percent of the total surface area on an interior or exterior type of component with a small surface area.



101

Identifying the Probable Root Causes & Remediation Methods

- Selects the ceiling, wall(s), floor, or component(s) identified in Section VIII.B.3.a above that have the same probable root cause (e.g., both the mold on the ceiling and water damage on the wall have a probable root cause of Shower Moisture.)
- Indicates if a wall break is required to inspect or correct the probable root cause.
 - If a wall break is required, the inspector must conduct the wall break with the assistance of a maintenance worker as part of the initial inspection.



102

Identifying the Probable Root Causes & Remediation Methods

If the probable root cause ***is not*** Resident – Cause:

- Selects one or more Failure Class/Problem Codes, as applicable, from the limited set of options in the dropdown menu for that probable root cause.
- Selects the appropriate craft required to make the repair for each Failure Class/Problem Code selected.



103

Identifying the Probable Root Causes & Remediation Methods

If the probable root cause ***is*** Resident – Cause

- Selects on the handheld device the specific instruction provided to the resident in Section VIII.B.5 below for each probable root cause that is Resident – Cause.
- Selects the remediation method and craft from a dropdown menu of limited options for the selected wall(s), floor, ceiling, or component(s).



104

Identifying the Probable Root Causes & Remediation Methods

- Maximo automatically generates child work orders for the Failure Class/Problem Codes (except when the probable root cause is Resident – Cause) and the remediation methods selected.
- If there are any additional probable root causes, the inspector repeats the steps in Section VIII.B.3.c(1) above for each probable root cause.



105

Identifying the Probable Root Causes & Remediation Methods

If the inspector is unable to determine the probable root cause of a mold, water damage, or moisture (i.e. wet measurement) condition they must:

- First request trouble shooting assistance from the other inspectors at the development; and then
- Escalate the work order to the Property Management Department skilled trades deputy director if the probable root cause still cannot be determined.

The skilled trades deputy director assigns appropriate staff to assist the inspector.



106

Completing the Initial Inspection

To complete the initial inspection:

- The inspector must take multiple photo(s) of the condition(s) identified, including at least one close-up photo of the condition(s) and at least one photo of the larger area, using the handheld device and upload the photo(s) into Maximo.
- If the condition is unfounded (i.e., there was no mold, water damage, or wet measurement condition identified):

The inspector must take and upload photo(s) of the condition reported by the resident as mold or mildew.



107

SP-Update

- *For clarity, the inspector should record key information obtained during the inspection in the notes field of the iWM app on an unfounded work order.*



108

Reviewing the Work Plan

Upon completion of the initial inspection, the inspector:

- Reviews the child work orders (i.e. the work plan) in the handheld device to confirm the work plan is correct and complete.
- Identifies the outcomes of the inspection on *NYCHA Form 060.845, Mold Inspection Receipt*.



109

Reviewing the Initial Inspection Results with the Resident

When Mold, Water Damage, or a Moisture Condition is identified the inspector:

- Gives NYCHA Form 060.303, Controlling Mold in Your Apartment to the resident and reviews with the resident the general recommendations on the form for preventing and cleaning mold and the importance of identifying and correcting the root cause(s) of mold to avoid reoccurrence.



110

SP-Update - Reviewing the Initial Inspection Results with the Resident

When Mold, Water Damage, or a Moisture Condition is identified the inspector:

- Gives NYCHA Form 060.845, Mold Inspection Receipt to the resident and reviews the following with the resident
 - (a) The initial inspection outcome (founded or unfounded).
 - (b) The requirement that NYCHA conduct a quality assurance inspection between 30-45 days after all work is completed.
 - (c) The required timeframe for the completion of all work.
 - (d) the name and contact information of the ombudsperson.



111

SP-Update - Reviewing the Initial Inspection Results with the Resident

When Mold, Water Damage, or a Moisture Condition is identified the inspector:

- Indicates in the handheld device that both NYCHA Form 060.303, Controlling Mold in Your Apartment and NYCHA Form 060.845, Mold Inspection Receipt were provided to and discussed with the resident.
- Advises the resident that the property management office will contact them to schedule any additional appointments needed
- Advises the resident that NYCHA will mail them NYCHA Form 060.846, Mold Inspection Review which details the following information:



112

SP-Update - Reviewing the Initial Inspection Results with the Resident

Advises the resident that NYCHA will mail them NYCHA Form 060.846, Mold Inspection Review which details the following information:

- a) The initial inspection and probable root cause findings.
- b) The next step(s) to remediate the mold, excessive moisture, or related condition and correct the root cause.
- c) The specific instruction(s) on how to correct the probable root cause if the probable root cause is Resident – Cause
- d) The requirement that NYCHA conduct a quality assurance inspection between 30-45 days after all work is completed.
- e) The required timeframe for the completion of all work.
- f) The name and contact information of the ombudsperson



113

Reviewing the Initial Inspection Results with the Resident– NOTE!

See Management Manual, Chapter II, Rent and Rent Collection, Section XV.A and Appendix 8 for details on when and how to make a social service referral to the Family Partnerships Department if there are housekeeping or safety hazards in an apartment.



114

When Mold Condition is Unfounded

- The inspector:
- (1) Discusses the initial inspection findings with the resident.
 - (2) Gives NYCHA Form 060.303, Controlling Mold in Your Apartment to the resident and reviews with the resident the general recommendations on the form for preventing and cleaning mold and the importance of identifying and correcting the root cause(s) of mold to avoid recurrence.
 - (3) Requests that the resident sign the unfounded work order on the handheld device.
 - (4) Indicates in the handheld device if the resident refused to sign or if the resident disagrees that the mold condition is unfounded.
 - (5) Provides the resident with NYCHA Form 060.845, Mold Inspection Receipt including the name and contact information of the ombudsperson.
 - (6) Closes the mold work order as Unfounded.
 - (7) Provides the name and contact information of the ombudsperson.



115

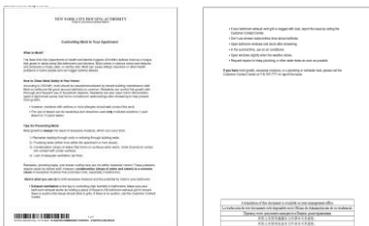
Records for Residents

- Mold Receipt – all projects (photo required)
- Controlling Mold in Your Apartment – projects where mold was found
- **Mold Inspection Review (Mold Remediation Plan)** – projects where mold was found. Must include:
 - The initial inspection and probable root cause findings.
 - The next step(s) to remediate the mold, excessive moisture, or related condition and correct the root cause.
 - The specific instruction(s) on how to correct the probable root cause if the probable root cause is Resident – Cause.
 - The requirement that NYCHA conduct a quality assurance inspection between 30-45 days after all work is completed.
 - The required timeframe for the completion of all work.
 - The name and contact information of the ombudsperson.



116

Controlling Mold Form



117

Mold Inspection Receipt



Must Take Photo & Save as "Mold Receipt"



118

Mold Inspection Review



119

NYCHA MOLD TRAINING



120

Measurement Equipment

- On-site testing equipment that indicates if moisture or ventilation problems may be present
- Used to help identify root causes
- Provides immediate information
- Inspector must be able to operate and understand data



121

Inspection Equipment

- Moisture Meter
- Hygrometer
- Anemometer
- Boroscope



122

Moisture Meters

- Moisture meters measure/monitor moisture levels in building materials, and may be helpful for measuring the moisture content in a variety of building materials following water damage.
- They also can be used to monitor the progress of drying damaged materials. These direct reading devices have a thin probe that is inserted into the material to be tested or pressed directly against the surface of the material.
- Pin-probe readings can provide additional information, but are not used during the root-cause assessment.



123

Hygrometer

- A hygrometer is used to measure moisture content in the atmosphere.
- Humidity measurement instruments usually rely on measurements of some other quantity such as temperature, pressure, mass or a mechanical or electrical change in a substance as moisture is absorbed.
- Results are reported in the App



124

Anemometers

- NYCHA uses **Testo Vane** instrument
- Must be set to Cubic Feet per Minute (CFM) - unit for Air Volume measurements.
- **NEW - Must be calibrated to 55% free air**



125

General Evaluation Of Room Conditions- NEW NOTE!

The user must ensure the anemometer is properly calibrated by:

- *Entering the correct size of the exhaust duct (i.e. the height and width in inches) in the IWM App.*
- **NEW - Ensuring that the Free Air Percentage is set to 55% in the IWM App.**

See Appendix C for instructions on how to use the anemometer. Users must follow the manufacturer's instructions when using inspection tools.



126

Boroscope

- A boroscope is a hand-held tool that allows users to see potential mold problems inside walls, ceiling plenums, crawl spaces, and other tight areas.
- It consists of a video camera on the end of a flexible "snake."
- No major drilling or cutting of dry wall is required.



EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

127

NYCHA MOLD TRAINING



128

IWM App

- Designed by & for NYCHA Housing
- Mold inspection procedures
- Used to determine remediation work orders
- Integrated into Maximo to create child work orders
- Provides Quality Assurance & Reinspection procedures

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

129



Welcome to the Handheld Informer Work Management (iWM)

Training Course for Mold Inspection



130

MOLD/MILDEW WO Workflow - (Continued) Mold is Found ...Doing the Work (Part 1)...



131

MOLD/MILDEW WO Workflow NO Mold was Found...



132



MOLD/MILDEW WO Workflow - (Continued)

Mold is Found ...Doing the Work (Part 2)...



Work Order Workflow

Doing the work...



Work Order Workflow

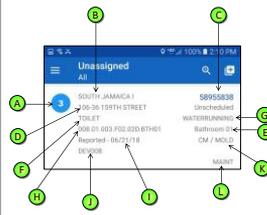
Ending the work...



View Work Order Details

The WO List screen shows a detailed summary about each WO.

- A Priority
- B Development
- C WO Number
- D Address
- E Room/Location
- F Failure Class
- G Problem Code
- H Location String
- I Reported By Date
- J Owner Group
- K WO Type
- L Craft



NYCHA Locations Explained

Examples of NYCHA Locations:

- Developments
- Buildings
- Stair Halls
- Floors
- Apartments
- Rooms (bedroom, bathroom, etc.)
- Heating Plumbing Line
- Grounds
- Elevators
- Community Centers

005.01.001.F02.02C.KIT01
 Development #/ Building / Stair Hall / Floor / Apartment / Room
005. 01. 001. F02. 02C. KIT01

Samsung Galaxy S8 Buttons



Log in to the device

1 Press Power/Lock Button
Swipe across screen
Enter the default password for the Device:
nycha90



Display Settings

Term

Definition

1 **iWM Maximo Prod** Informer Work Management allows can search, work and close Work Orders.

2 **Camera** User friendly, just point and shoot. Pictures taken are saved in the Gallery application.

3 **Gallery** A place holder for all pictures taken. Can sort pictures by albums. Can easily search, upload and delete pictures.

4 **Maps** Google maps reliable mapping service providing location information.



Launch the iWM Application

1 Tap on the **Work Management Application** to access the Log In screen.



Log In To iWM Application

1 Enter **User Name and Password**

2 Tap **LOGIN**

* It is the same User Name and Password as **Maximo**, and Your Computer.

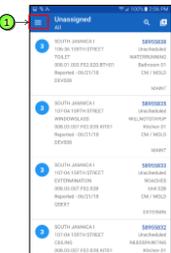
NOTE: Make sure you are in an area that has good cell service.



Viewing Work Orders

All of the WOs that you'll always see are in the user's area/location (**Borough Wide Development / Managed BY**).

1 Tap **Menu** button to go to the **Menu** in order to sort the list of **Unassigned Work Orders** in a different way.



Menu

1 **Show My Work Orders:** Shows open WOs assigned to the user who is logged-in.

2 **Show Assigned Work Orders:** Shows Open WOs that are assigned to other users in the user's area (Development or Borough)

3 **Show Unassigned Work Orders:** Shows Open WOs that are not assigned to any person.

4 **Show Court Work Orders Today:** Shows Open WOs where resident has an appointment for today.

5 **Show Reinspection Work Orders:** Shows all automatically generated WOs as a result of the completed QA Mold Inspection.



Viewing Work Orders - Types

Work Orders can be filtered and sorted by Work Order type, there is no default.

- 1 Show All Work Types displays all open Work Orders for the Development.
- 2 Show CM / DM Work Orders displays all Corrective Maintenance and Deferred Maintenance Work Orders...
- 3 Show Inspection Work Orders displays all the Inspection Work Orders.



Mold Work Orders Process - Inspection

The first Parent Work Order appears in:

- 1 Show Unassigned Work Orders
- Show CM / DM Work Orders

NOTE: If the Work Order is assigned to a worker it will appear in Show Assigned Work Orders or Show My Work Orders.



Mold Work Orders Process - QA

The first QA Work Order appears in:

- 1 Show Unassigned Work Orders
- Show Inspection Work Orders

NOTE: The QA Work Order is automatically generated in Maximo 25-days, and the new Target Start Date will be set to 30 days after the last Child Work Order is closed (or 25-days after the mold inspection gets closed if no children are created).

The Target Finish Date is set to 15 days after the Target Start Date.

If either Target Start Date or Target Finish Date fall on a weekend or a holiday, then next business day.



Mold Re-Inspection Work Orders Process

The first Re-Inspection Work Order appears in:

- 1 Show Reinspection Work Orders
- Show CM / DM Work Orders

NOTE: Maximo creates the Re-Inspection Work Order immediately and the person who submits the QA Work Order, should see the Reinspection Work Order on his device and right there and then complete and submit Re-inspection results.



View Work Order Details

The user can review the Work Order Details by scrolling up and down on the Details tab.

The fields below are unique for the Mold Inspection Work Order:

- 1 Work Type = CM
- 2 Job Plan = INSMOLD/CM
- 3 Sub-work Type = MOLD
- 4 Failure Class = MILDEWCONDITION
- 5 Problem Code = MILDEW



View and Select Labor - Start the Timer

After reviewing the Work Order Details the user is now ready to begin the work. START TIME is displayed at the bottom of the screen.

- 1 Tap on START TIME
- 2 Select Inspection
- 3 Tap NEXT



Inspection Status

On Perform Inspection screen you can see the **WO Inspection State**. This is the current **State** of the Inspection.

- COMPLETE** – All required results have been entered.
- PARTIAL** – Some results have been entered, but not **ALL** required results.
- NONE** – No results have been entered.
- NOTE:** **WO Inspection State** of the whole **WO** will appear on this screen and on the **Work Order List** screen.



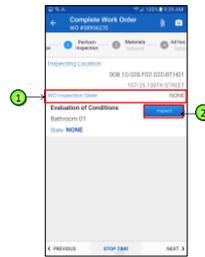
151

Perform Inspection

The first task in a series of tasks is **Task 1: Evaluation of Conditions**

The **WO Inspection State** is **NONE**.

- Tap **INSPECT**



152

Evaluation of Mold Growth – (Continued)

Items that must be inspected are marked by a red asterisks (*)

All questions that have an asterisk (*) are mandatory.

- Evaluation of Conditions** screen requires evaluation for:
 - Mold Growth (Yes/No)
 - Water Damaged (Yes/No)
 - Moisture Measurement >= 599 (Yes/No)
- Tap **NONE** next to **Is there mold growth?**



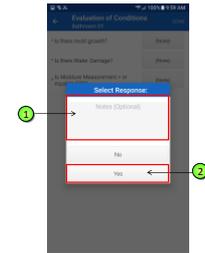
153

Evaluation of Mold Growth – (Continued)

The **Select Response** window display 3 options:

- Notes (optional)
- No
- Yes

- In the **Notes** field, the user can input free-text information.
- Tap **YES**

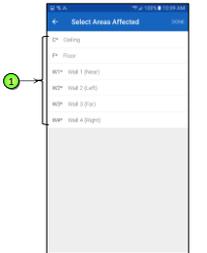


154

Evaluation of Mold Growth – (Continued)

The **Select Areas Affected** screen displays, all of the fields or areas to select.

- To select an affected area tap on it, **IWM** then highlights the selected area in **Green** color.
- To unselect an area tap on it again and the **Green** bar disappears.



155

Evaluation of Mold Growth – (Continued)

- Tap on **W2* Wall 2 (left)**, the system highlights it in **Green**.
- Tap **DONE**



156

Evaluation of Mold Growth – (Continued)

The **FollowUp Info** screen displays, the **Square Footage** which is a **Mandatory** field:

- 1 Tap **SQUARE FOOTAGE**

NOTE: Square footage is the total of all areas added together.



157

Evaluation of Mold Growth – (Continued)

Tap inside the field and the device keyboard displays.

- 1 Type 25
- 2 Tap **DONE** on the device keyboard
- 3 Tap **DONE**



158

Evaluation of Mold Growth – (Continued)

Once the user completes the mold growth inspection, the **View Details** appear below the **Yes** button.

- 1 Tap on the **View Details** to see the summary of the **Inspection** that was performed.



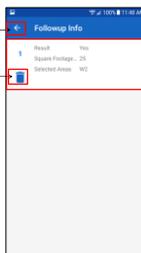
159

Evaluation of Mold Growth – (Continued)

The **View Details** screen displays a summary of the inspection performed.

NOTE: to change the answers entered, tap on the **Garbage** Pull icon  to erase the information entered. Confirm the message in the Pop-up Window, "Are you sure you want to delete this result?" tap **Yes**.

- 1 Tap the **back arrow**  to return to the **Evaluation of Conditions** screen.
- 2 Tap the **back arrow**  to return to the **Evaluation of Conditions** screen.

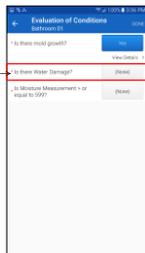


160

Evaluation of Water Damage

The second Mandatory question on the **Evaluation of Conditions** screen is: "Is there **Water Damage**?"

- 1 Tap **NONE** next to Is there **Water Damage**?



161

Evaluation of Water Damage – (Continued)

The **Select Response** window display 3 options:

- **Notes** (optional)
- **No**
- **Yes**

- 1 In the **Notes** field, the user can input free-text information.
- 2 Tap **YES**



162

Evaluation of Water Damage – (Continued)

Tap and select two affected areas:

- 1 W1* Wall 1 (Near)
W2* Wall 2 (Left)
- 2 Tap DONE

163

Evaluation of Water Damage – (Continued)

The Evaluation of Conditions screen has now two mandatory questions answered.

Tap on the View Details to see the summary of the Inspection that was performed.

164

Evaluation of Water Damage – (Continued)

Review the entered Result in the FollowUp Info Screen.

Tap the back arrow to return to the Evaluation of Conditions screen.

165

Evaluate Moisture Measurement Level

The last question on the Evaluation of Conditions is to evaluate the moisture level.

Evaluate the moisture measurement level (greater than) >= 599

Tap NONE

166

Evaluate Moisture Measurement Level – (Continued)

From the Select Response window box, select YES or NO.

Tap YES

If YES is selected, select the areas listed where the Moisture Measurement Level is greater than (>=25).

167

Evaluate Moisture Measurement Level – (Continued)

Tap and select the Affected Areas:

- 1 F* Floor
W1* Wall 1 (Near)
W2* Wall 2 (Left)
- 2 Tap DONE

168

Evaluate Moisture Measurement Level – (Continued)

The Evaluation of Conditions screen is now complete.

1 Tap DONE

169

Complete Evaluation of Conditions

1 The Evaluation of Conditions status is now COMPLETE, and WO Inspection State is PARTIAL.

2

NOTE: If the Evaluation of Conditions (Task 1) has all the answers as NO for Mold Growth, Water Damage and Wet Reading questions, then **do not** answer the rest of the inspection questions. Inspection is complete. The inspector can then take a photo and submit the inspection results to Maximo.

170

Perform General Evaluation Inspection

The second task in a series of tasks is

Task 2: General Evaluation

1 Tap INSPECT

171

Perform General Evaluation Inspection – (Continued)

Items that have to be inspected are marked by a red asterisk (*).

All questions that have an asterisk (*) are mandatory.

1 Tap NONE, next to Interior Wall Finish

172

Perform General Evaluation Inspection – (Continued)

A Select Response window displays, select the finish: Plaster or Sheetrock

1 Tap Sheetrock

173

Perform General Evaluation Inspection – (Continued)

The process is the same for the following items:

- Framing Type: Steel or Wood
- Ceiling Type: Concrete or Sheetrock
- Floor Type: Ceramic, Vinyl or Wood
- Coackroaches: No or Yes
- Rodent Droppings: No or Yes

1 Tap NONE next to Framing Type

174

Perform General Evaluation Inspection – (Continued)

The answers to the questions below determines the remediation methods used.

- Interior Wall Finish: Sheetrock
- Framing Type: Wood
- Ceiling Type: Sheetrock
- Floor Type: Ceramic
- Cockroaches: Yes
- Rodent Droppings: Yes

NOTE: Maximo will automatically generate ONE open Child Work Order for Exterminator for every single Organism found in the apartment. For example in the above, there would be 2 WOs 1 for Cockroaches and 1 for Mice.

Perform General Evaluation Inspection – (Continued)

The Supervisor shall input the Relative Humidity of the room. Upon tapping the Relative Humidity field, the device keyboard appears.

- Type 58
- Tap DONE on the device to remove the keyboard.

Perform General Evaluation Inspection – (Continued)

If the location is a bathroom or a kitchen, the Supervisor shall answer "Is there an exhaust fan?" question as YES or NO.

If there is an Exhaust Fan, Maximo will automatically generate a Work Order to clean the vent upon submission of the inspection results.

- Tap YES

Perform General Evaluation Inspection – (Continued)

The Supervisor shall enter the CFMs (Cubic Feet Measurement) at the exhaust vent in the appropriate field.

The CFM's measurement is a mandatory field.

- Type 24 on the device keyboard.
- Tap DONE on the device keyboard.
- The Notes field is optional.

NOTE: If CFM is less than (<25), Maximo will auto-generate a Work Order to check the roof fan upon submission of the inspection results.

- Tap DONE

Perform General Evaluation Inspection – (Continued)

The View Details below the Exhaust Fan field displays the information entered.

- Tap on View Details

Perform General Evaluation Inspection – (Continued)

Review the entered Result in the FollowUp Info Screen.

- Tap the back arrow to return to the General Evaluation screen.

Perform General Evaluation Inspection – (Continued)

If there was **NO** Exhaust Fan, the Supervisor shall answer "Is Window Operable?" question as **YES** or **NO**.

1 Tap on View Details below the Window Operable field to review information entered.

NOTE: If the Supervisor answers **NO** for Window Operable question, Maximo will **auto-generate** a Work Order to fix the window upon submission of inspection results.

181

Perform General Evaluation Inspection – (Continued)

If the location is a bathroom, the Supervisor must answer the question, "Is sealant/caulking present around toilet bowl base?" as **YES** or **NO**.

1 Tap **NONE** and select **NO** from the Select Response window.

NOTE: Maximo will auto-generate a Work Order, if the answer is **NO**, to fix the caulking/sealant with mold resistant caulking, upon submission of the inspection results.

2 Tap **DONE**

182

Probable Causes And Remediation

The third task in a series of tasks is **Task 3: Probable Causes and Remediation**

1 Tap **INSPECT**

183

Probable Causes And Remediation – (Continued)

1 On the top of the screen, IWMM is reminding the user to select a **Probable Cause and Remediation** method for the **Walls 1, Walls 2, and the Floor**. Those were the **Affected Areas** selected in **Task 1: Evaluation of Conditions**.

Selecting **Remediation** for all these walls is **mandatory**.

2 The **Wall-break** is a **Mandatory** question.

184

Probable Causes And Remediation – (Continued)

The **Wall-break** is the only **Mandatory** question on the screen.

You must select **at least ONE** other **Probable Cause** on the **Probable Causes And Remediation** screen.

The Supervisor will answer **YES** for whichever causes are applicable. **Only select what's needed**.

1 Tap **NONE** next **Wall-break** question.

185

Probable Causes And Remediation – (Continued)

The **Select Response** window appears for the **Wall-break** question. The available answer is **YES** or **NO**.

1 Tap **YES**

186

Probable Causes And Remediation – (Continued)

All the Areas Affected by the Wall Break.

Only the "Areas Affected" that were selected from Task 1: Evaluation of Conditions will show on the list.

1 Tap on each area separately and enter the remediation method.



Probable Causes And Remediation – (Continued)

Each Probable Cause for the selection will be listed as a question.

The Supervisor will answer YES for whichever causes are applicable. At least ONE cause must be answered YES (if an issue was found in Task 1).

1 Tap FLOOR to select it.

2 Tap DONE



Probable Causes And Remediation – (Continued)

If the Supervisor answered YES for the Probable Root Cause, select the Areas Affected by the specific cause.

NOTE: Only "Areas Affected" that were selected from Task 1 will show in list. And EACH surface Area Selected from Task 1 must be accounted for against a Probable Cause.

Multiple surface areas can be selected per Probable Cause.

1 Tap NONE next to Bathtub/ Shower



Probable Causes And Remediation – (Continued)

The Select Response window appears, the available answers YES or NO.

1 Tap YES

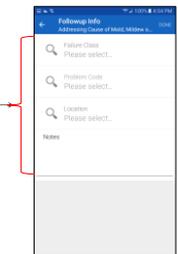


Probable Causes And Remediation – (Continued)

The FollowUp Info screen displays, with 4 fields:

- Failure Class
- Problem Code
- Location
- Notes (Optional)

1 Tap Failure Class



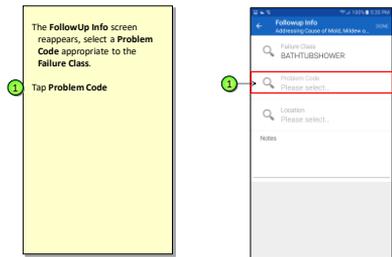
Probable Causes And Remediation – (Continued)

The Failure Class is a very limited list.

1 Tap BATHTUBSHOWER

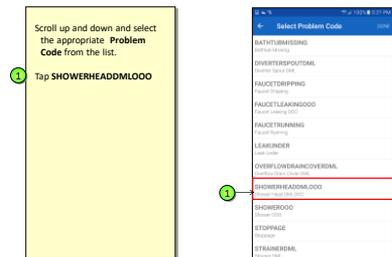


Probable Causes And Remediation – (Continued)



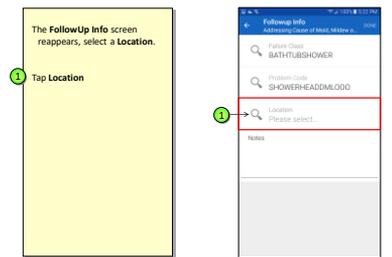
193

Probable Causes And Remediation – (Continued)



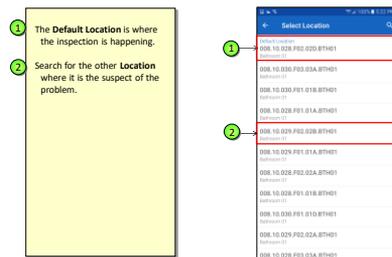
194

Probable Causes And Remediation – (Continued)



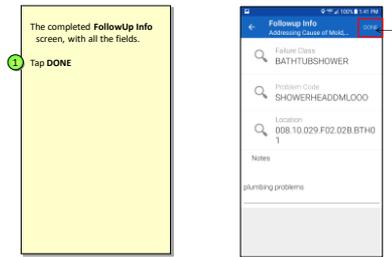
195

Probable Causes And Remediation – (Continued)



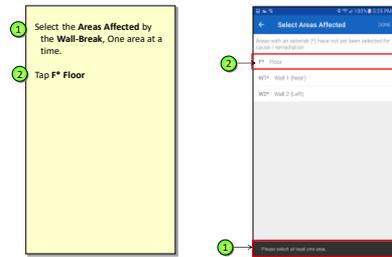
196

Probable Causes And Remediation – (Continued)



197

Probable Causes And Remediation – (Continued)



198

Probable Causes And Remediation – (Continued)

1 Select the Floor by tapping on it. Once selected IWM will highlight it in green color.

2 Tap DONE

Probable Causes And Remediation – (Continued)

1 The Select Remediation screen appears. Select the Remediation Method from the displayed list. Tap on No. 14, Floors by tapping on it. Once selected IWM will highlight in green color.

2 Notice the Reference Number associated with the Remedy as this what will display in the View Details.

3 Tap DONE

Probable Causes And Remediation – (Continued)

1 Tap on View Details below the Bathtub/Shower field to review information entered.

Probable Causes And Remediation – (Continued)

1 Notice the corresponding number is replacing the Remediation method that was selected. In this case is number 10.

2 Tap plus sign (+), to add more Remediation methods about the same wall.

Then follow the same process as before.

Probable Causes And Remediation – (Continued)

1 There are two Remediation methods for the same issue.

NOTE: to change the answers entered, tap on the Garbage Pail icon (🗑️), to erase the information entered.

Confirm the message in the Pop-up Window, "Are you sure you want to delete this result?" tap Yes.

Tap the back arrow (←) to return to the Evaluation of Conditions screen.

Probable Causes And Remediation – (Continued)

Repeat the same process for all the Areas Affected selected from the Evaluation of Conditions.

1 Complets a Probable Cause and Remediation methods for Wall 1 and Wall 2 selected in Task 1.

Probable Causes And Remediation – (Continued)

1 Select the Floor by tapping on it. Once selected IWM will highlight in green color.

2 Tap DONE

211

Probable Causes And Remediation – (Continued)

1 The Select Remediation screen appears. Select the Remediation Method from the displayed list. Tap on No. 10, Floors by tapping on it. Once selected IWM will highlight it in green color.

2 Tap DONE

212

Probable Causes And Remediation – (Continued)

1 On the Probable Causes and Remediation screen, tap on View Details next to the Resident - Cause.

NOTE: Maximo Will Not generate any Child Work Orders for any Resident Cause instructions.

213

Probable Causes And Remediation – (Continued)

1 The FollowUp Info screen displays the entered results. You can add more Resident instructions from this screen.

2 Tap the plus sign to add more Resident's instructions. Repeat the process again as before.

214

Probable Causes And Remediation – (Continued)

1 Notice the instructions that were given to the Resident.

2 Tap the back arrow to go back to the Probable Causes and Remediation screen.

215

Probable Causes And Remediation – (Continued)

1 Scroll down and select Toilet.

2 Tap NONE next to Toilet.

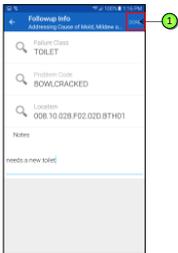
216

Probable Causes And Remediation – (Continued)

1 The Select Response displays tap YES.

The FollowUp Info screen displays, repeat the same process as before.

1 Tap DONE when complete.



217

Probable Causes And Remediation – (Continued)

1 The Probable Causes and Remediation screen reappears.

1 Tap View Details by the Toilet.



218

Probable Causes And Remediation – (Continued)

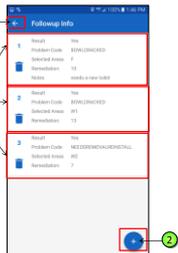
1 The Probable Causes and Remediation screen reappears.

1 Tap View Details by the Toilet.

2 Tap plus sign (+) to add more Remediation methods about the same wall.

Then follow the same process as before.

3 Tap the back arrow (←) to go back to the Probable Causes and Remediation screen.



219

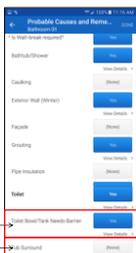
Probable Causes And Remediation – (Continued)

1 The Probable Causes and Remediation screen reappears.

1 Tap Toilet Bowl/Tank Needs Barrier

2 Tap Tub Surround

Repeat the same process for every Affected Area for Toilet Bowl/Tank Needs Barrier and Tub Surround, by selecting the Failure class, Problem Code, Location, and Notes when needed.

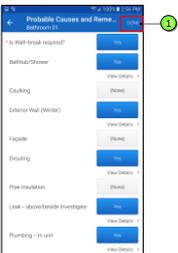


220

Probable Causes And Remediation – (Continued)

1 Now the Probable Causes and Remediation screen are the same.

Tap DONE to save all the information the user entered.



221

Inspection Status

1 All the three tasks now have a Status of COMPLETE. The WO Inspection State is COMP/UNSUBMITTED.

The Supervisor has answered all the required fields after performing the inspection.

2 Tap NEXT



222

Enter Work Log

1 The Work Log entries are displayed.

2 Tap the pencil icon to enter a summary of your work.

223

Enter Work Log - (Continued)

Enter a Summary for the work completed in the Work Order.

1 Tap the Summary field, the keyboard will display.

224

Enter Work Log - (Continued)

1 Using the keyboard, type a brief Summary.

2 Tap in the Details field notice the system will duplicate what you've typed in the Summary field to save you some typing.

3 Tap on the "microdevice" by "holding down the little gear ⚙️" on the bottom left of the keyboard and select the microphone icon and speak to dictate what will be typed.

NOTE: Once it is used the system will remember the last time icon used and keep it selected.

4 Tap NEXT

225

Enter Work Log - (Continued)

1 When you are done reviewing your Summary and the Details fields, tap DONE.

226

Enter Work Log - (Continued)

1 Review the entered information. If you need to add information tap the pencil icon and repeat the process.

2 Work Log is completed, tap NEXT.

227

Taking Photos for Work Orders

NYCHA has made it very easy to add photos to Work Orders. Photos can be taken anytime during the work flow and automatically attached to the Work Order.

NOTE: Photos are required for Mold and Mildew Work Orders as evidence for supervisors and courts to evaluate.

1 Tap on the Camera icon in the top right corner to open the camera.

Click Camera icon in top right to add photo

228

Taking Photos for Work Orders - (Continued)

1 Tap the image on the preview screen to focus the camera.

2 Then, tap the **Circle** icon at the bottom of the screen to take the photo.

NOTE: Once you save a picture you can not delete it.

December 2018 Handheld Informer Work Management Training - Mold Inspection Page 229

229

Taking Photos for Work Orders - (Continued)

1 You can then type a **Description** to the photo taken.

2 Tap **OK**

NOTE: All photos taken are automatically saved and stamped with date and time when taken and appear under the "Attachments" page of the work flow for evaluation.

December 2018 Handheld Informer Work Management Training - Mold Inspection Page 230

230

Taking Photos for Work Orders - (Continued)

1 Tap the **paper clip** to see the picture taken.

2 All photos taken are automatically saved and stamped with date and time when taken and appear under the "Attachments" page of the work flow for evaluation.

3 Tap on the **back arrow** to return to the Work Order.

December 2018 Handheld Informer Work Management Training - Mold Inspection Page 231

231

Capture Signatures

1 The Signatures screen will display three selections **RESIDENT, WORKER and SUPERINTENDENT**.

Worker Signature is Optional.

December 2018 Handheld Informer Work Management Training - Mold Inspection Page 232

232

Capture Signatures - (Continued)

1 The **RESIDENT** signs the Work Order.

2 The **SUPERVISOR** signature if required.

3 Tap **NEXT**

December 2018 Handheld Informer Work Management Training - Mold Inspection Page 233

233

Resident Satisfied?

The resident can fill out additional information. The next screen asks if the **Resident is Satisfied YES/NO**.

1 The resident can select **YES** or **NO** by tapping on the radio button.

NOTE: This information is optional for the **Resident**.

Once the user answers the question, the **RESIDENT: WORK DATE** screen appears.

December 2018 Handheld Informer Work Management Training - Mold Inspection Page 234

234

Review Resident Signature

1 Tap FINISH.

Review the resident Name, Comments, and Signature.

235

Worker Signature - Optional

1 WORKER signature is Optional.

2 The signature should be added in the same way as the Resident's Signature.

236

Supervisor Signature

1 If necessary obtain the SUPERVISOR'S signature if required.

2 This signature should be added in the same way as the Resident Signature was added.

237

Review Captured Signatures

1 The Resident and Worker Signatures are displayed.

2 NOTE: ALL Signatures entered are saved.

3 Tap NEXT

NOTE: The Supervisor's Signature is mandatory in a Mold/Mildew Work Order in order to Submit/Close it.

238

Labor

1 IN PROGRESS Labor Record (in green) in the Labor tab, indicates the Labor Timer is running.

2 An IN PROGRESS Labor Record cannot be edited.

239

Additional Labor

This is your Labor Log: To add a helper or assistant that started work with you, you must add your helper's labor time.

1 Tap the Plus icon +.

240

Reviewing and Adding Additional Labor

Add Labor to add a helper that has a different work time duration.

Add Partner if you and your helper have identical work time duration.

NOTE: To add a partner you must tap the **Add Partner** icon while the timer is still running and the record is in green color.

241

Additional Labor - (Continued)

Select the name of an **Additional Laborer** to add as a contributor to this Work Order.

Search for your helper either by typing his badge ID or by first and last name.

242

Additional Labor - (Continued)

Notice the **Labor Record** for you, and your partner are both colored green, and have an identical time duration.

To add an additional helper, that has a different work time, and contributed some labor to this Work Order, tap the **Plus** icon and tap **Add Labor**.

243

Additional Labor - (Continued)

At the top of screen you will see the **Employee Number** and the **Name**.

Tap on the **>** symbol to select the Name from the additional Labor screen.

244

Additional Labor

Select the name of the **Additional Laborer** to add as a contributor to this Work Order.

Search for your helper, either by typing your helper's badge ID, or by first and last name.

Tap on the **selected name**, to add the laborer name to the Work Order.

245

Additional Labor - (Continued)

Tap **End Date** and **End Time** and adjust them accordingly to when the work ended for the additional Laborer.

Tap on the **Type** field to select the Labor Type.

246

Additional Labor - (Continued)

The **Type** field window selection appears, select the appropriate Labor Type.

For **all** Work Orders, the Labor record **Type** is required to match the primary laborer's type of labor performed, i.e., **INSPECTION**, or **UNSAFE CONDITION**.

1 Tap **INSPECTION**

Additional Labor - (Continued)

The **Edit Labor Time** screen reappears, review the **Start Time** and **Date**, **End Date** and **Time**, and **Labor Type**.

1 Tap **DONE**

Submit The Inspection Work Order

You must resolve any errors with the WO before continuing on. Errors will be preceded with an **Orange color Exclamation Mark**.

Tap on **Exclamation Mark** next to each error, read the screen and correct the errors.

NOTE: a photo is required for all Mold Inspection Work Order.

2 Tap **Stop Timer**

Submit The Inspection Work Order - (Continued)

1 If you want to **CREATE CHILD WO** for an issue other than **MOLD**, tap on **CREATE CHILD WO** gray bar.

2 When all the errors are corrected, you can click the **SUBMIT INSP/ UPDATE WO STATUS** gray bar.

Practical Exercises

- Initial Inspection #1

Practical Exercises

- Initial Inspection #2

NYCHA MOLD TRAINING



253

Quality Assurance Inspections

- Maximo automatically generates a quality assurance inspection work order twenty-five (25) days after the last child work order is closed for all apartments where a mold, water damage, or moisture (i.e. a wet measurement) condition was identified during the inspection.
- The target start date is automatically populated as 30 days after the last child work order closed and the target end date is populated as 45 days after the last child work order closed.
- Once the quality assurance inspection work order is generated, property management staff contacts the resident and schedules the quality assurance inspection to take place between 30-45 days after the last child work order is closed. See Section VIII.A.3 for the process to schedule appointments.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

254

Quality Assurance Inspections – Note!

- For quality assurance purposes, whenever possible the inspector conducting the quality assurance inspection should be different than the inspector who performed the initial inspection.
- Quality assurance inspections are performed using the handheld device. If a handheld device is not operating during the quality assurance inspection, the inspector must record the results on a paper quality assurance inspection work order and enter the results into Maximo immediately following the quality assurance inspection.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

255

Quality Assurance Inspections

Prior to visiting the apartment on the day of the quality assurance inspection appointment, the inspector:

- 1) Checks the mold inspection tool kit, to ensure that the following instruments are in working order: anemometer, hygrometer, and moisture meter. Brings all the tools on the quality assurance inspection in case a full new initial inspection is needed.
- 2) Assigns a caretaker and maintenance worker to accompany them on the quality assurance inspection or be on call in case there is follow up work or a full new initial inspection is required. The maintenance worker must bring a borescope and tools appropriate for making wall-breaks.
- 3) Must make a courtesy call to the resident via the handheld device on the way to the quality assurance inspection to remind them of the appointment. If the resident does not answer the call, the inspector must still go to the apartment at the scheduled time.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

256

Quality Assurance Inspections

Inspecting for Mold, Water Damage, and Moisture
The Inspector:

- Visually inspects for mold any wall, floor, ceiling, or component identified in the initial inspection as having mold and records the results in the handheld device.
- Visually inspects for water damage any wall, floor, ceiling, or component identified in the initial inspection as having water damage and records the results in the handheld device.
- Uses the moisture meter to measure for subsurface moisture any wall, floor, ceiling, or component that measured wet during the initial inspection and records the results in the handheld device.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

257

Quality Assurance Inspections

If mold, water damage, or moisture (i.e. a wet measurement) is found during the quality assurance inspection:

- The inspector immediately stops the quality assurance inspection and completes and closes the quality assurance inspection work order.
- Maximo automatically generates a new parent mold work order.
- The inspector immediately conducts a full inspection following the steps in Section VIII.B.3-5.

EEA
ENVIRONMENTAL
EDUCATION ASSOCIATES
Working to make our communities healthy

258

Quality Assurance Inspections

Inspecting for Mold, Water Damage, and Moisture: (Cont.)

- If no mold, water damage, or moisture (i.e. a wet measurement) is found, the inspector continues with the quality assurance inspection.



259

Quality Assurance Inspections

If an air flow measurement was taken during the initial inspection:

- The inspector uses an anemometer to take an air flow measurement in cubic feet per minute (CFM) of the kitchen or bathroom exhaust vent.



260

Quality Assurance Inspection – Note!

The user must ensure the anemometer is properly calibrated by:

- Entering the correct size of the exhaust duct (i.e. the height and width in inches);
- Ensuring that the Free Air Percentage is set to 15%.

See Appendix C for instructions on how to use the anemometer. Users must follow the manufacturer's instructions when using inspection tools.



261

Quality Assurance Inspections

Confirms that all work (i.e. child work orders) to remediate mold and correct root causes and related conditions was satisfactorily completed.

The inspector:

- Reviews the work actuals of the child work orders using the handheld device.
- Visually inspects all completed work in the apartment related to the child work orders.



262

Quality Assurance Inspections

If all work was satisfactorily completed:

- The inspector completes the quality assurance inspection by taking photo(s) of the inspection area free of mold, water damage, and/or moisture and uploading the photo(s) into Maximo.



263

Quality Assurance Inspections

If any work was not satisfactorily completed:

The inspector:

- Immediately creates a child work order in Maximo.
- Takes and uploads a photograph of the unsatisfactory work into Maximo if the work is visible in the apartment.
- Closes the existing quality assurance inspection work order.
- Follows up with supervisor of the staff person(s) who performed the work to report the unsatisfactory work and ensure the work is completed.



264

Quality Assurance Inspections – Note!

See Section XII, Non-Compliance, for steps to address work that is not performed to standard.



265

Quality Assurance Inspections

Quality Assurance Inspection Complete – All Work Satisfactorily Completed

The inspector:

- Reviews the quality assurance inspection findings with the resident.
- Requests that the resident sign the quality assurance inspection work order on the handheld device confirming that mold and any related conditions are not present and that all work was completed satisfactorily.
- Indicates on the handheld device if the resident refuses to sign or is dissatisfied with the work.
- Provides the resident with the name and contact information of the ombudsperson.
- Closes the quality assurance inspection work order.



266

Quality Assurance Inspections

If additional work is needed, the inspector advises the resident of:

- The next steps to complete the work and the required timeframe for completion of all work.
- The requirement for a new quality assurance inspection once the work is completed.



267

Practical Exercise

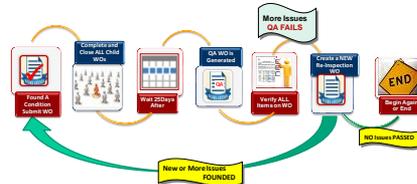
QA & Re-inspection



268

QA and Re-Inspection Workflow Process

QA and Re-Inspection Work Order Workflow Mold was Found...



269

270

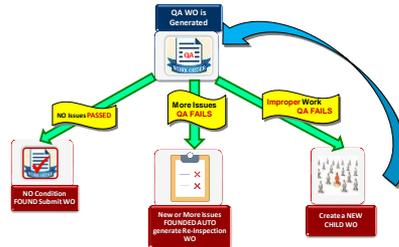
QA: MOLD/MILDEW WO Workflow

NO Mold was Found...



271

Different Paths for QA ...



272

Mold Work Orders Process - QA

The first QA Work Order appears in:

- Show Unassigned Work Orders
- Show Inspection Work Orders

NOTE: The QA Work Order is automatically generated in Maximo 25-days, and the new Target Start Date will be set to 30 days after the last Child Work Order is closed (or 25-days after the mold inspection gets closed if no children are created).

The Target Finish Date is set to 15 days after the Target Start Date. If either Target Start Date or Target Finish Date fall on a weekend or a holiday, then next business day.



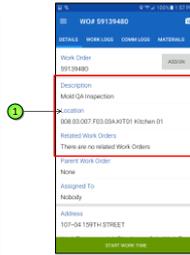
273

View QA Work Order Details

The start of the QA Process assumes Mold Growth, Water Damage or the Moisture Measurement question was answered YES in the Mold Inspection. If any were YES, this means a condition was found, and therefore, a QA inspection must be done.

If all were NO, this means no issue was found on the inspection, and no QA gets generated.

Remember the QA Work Orders are auto-generated 25 days after the last Child Work Order is closed.



274

View QA Work Order Details - (Continued)

The Work Order Type and Job Plan have changed in Mold QA as they appear on the screen.

Work Type = IN
Job Plan = INSMOLDQA
Sub-Work Type = MOLD
Failure Class = MILDEWCONDITION
Problem Code = MILDEWQA

Tap START WORK TIME



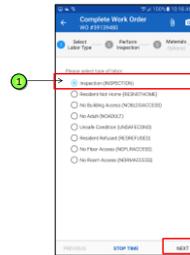
275

View and Select Labor

After reviewing the WO Details the user is now ready to begin the work. START TIME is displayed at the bottom of the screen.

Select Inspection

Tap NEXT



276

QA: Evaluation of Conditions

QA: Task 1: Evaluation of Conditions
 WO Inspection State is NONE
 1 Tap INSPECT

277

QA: Evaluation of Conditions – (Continued)

If the user answers YES to any of these questions, this triggers the process for Re-inspection as the QA has failed. The remaining questions on the QA do not have to be answered.
 Maximo will generate a Re-inspection Work Order once user submits their results on the QA.
 On the QA Work Order, the user shall be asked:
 Mold Growth?
 Water Damage?
 Moisture Measurement >= 599

278

QA: Evaluation of Conditions – (Continued)

When a QA is generated, it brings over any of the NO answers from the initial inspection. So the user knows what the previous answers were.
 So in this scenario, the question "Is there Mold Growth?" The answer was YES, and the other 2 answers were NO. That's why the answer to the first question is blank. This way the user can quickly answer the question or address a new issue.
 1 Tap NONE next to Is there mold growth?

279

QA: Evaluation of Conditions – (Continued)

1 Answer NO for "Is there Mold Growth?" question.
 If NO Mold Growth, Water Damage or Moisture Measurement was found on the QA Work Order, then the remaining questions on the QA must be answered.
 2 Maximo checks if the location of the QA Work Order was a bathroom or kitchen, as this drives logic for Exhaust Fan question to show.

280

QA: Evaluation of Conditions – (Continued)

1 Tap NONE next to the Exhaust Fan question.

281

QA: Evaluation of Conditions – (Continued)

The Select Response Window display 3 options:
 • Notes (optional)
 • No
 • Yes
 1 In the Notes field, the user can input free text information.
 2 Tap YES
 NOTE: If the answer is YES, Maximo doesn't auto-generate a Work Order for the Roof fan.

282

QA: Evaluation of Conditions – (Continued)

The Supervisor shall enter the CFMs (Cubic Feet Measurement) at the exhaust vent in the appropriate field. The CFM's measurement is a mandatory field.

- 1 Type 26 on the device keyboard.
- 2 Tap DONE on the device keyboard.
- 3 The Notes field is optional.
- 4 Tap DONE

NOTE: If CFM is less than (<25), N/A will not auto-generate a Work Order to check the roof fan.

283

QA: Evaluation of Conditions – (Continued)

If **NO** Mold Growth, Water Damage or Moisture Measurement was found on the QA Work Order, the user must answer the question verifying if "All children Work Orders from the original inspection were completed properly."

If **YES**, the QA Work Order has passed and the process is complete.

If **NO**, the QA Work Order fails because the children Work Orders were not completed properly.

284

QA: Evaluation of Conditions – (Continued)

All Children Work Orders from the original inspection were completed properly:

- 1 If the answer is **NO**, the user shall be mandated to create a Child Work Order or the QA Work Order.

This is to ensure the remaining underlying issue is fixed. Users can create multiple Children Work Orders.

The Child Work Order(s) are completed by the responsible party. The process returns to step 1 as this triggers a new QA Work Order to get generated.

285

QA: Evaluation of Conditions – (Continued)

- 1 The Select Response window display, select **NO**.
- 2 Tap **DONE**

286

QA: Evaluation of Conditions – (Continued)

- 1 QA: Evaluation of Conditions status is now **COMPLETE**, and WO Inspection State is **COMP/UNSUBMITTED**.
- 2 Tap **NEXT**

287

QA: Work Log

Work Log now contains all the different Child Work Orders that were created and completed for this Mold inspection.

The Supervisor can check what was done, check the quality of work, and what was reported as an issue.

If the Supervisor finds that the reported issues were not resolved correctly that meets NCHA standards then, then Super can create another Child Work to fix the problem.

In this case, the process starts again.

288

QA: Work Log – (Continued)

1 Swipe sideways ←→ to the right and left to see a summary of each Child Work Order that was created and completed for this QA.

Each Child Work Order Number has the Location, Failure Class, Problem Codes, Responsible Craft, and the Repairs and resolution.

The user can view the details for each closed and completed Work Order in Maximo desktop.

2 Tap the pencil icon to add more information of your findings.

3 Tap NEXT

Handheld Informer Work Management Training – Mold Inspection
December 2018
Page 289

QA: Submitting The Work Order – (Continued)

1 Complete the process as before in the Mold Inspection for Comm Log, Signatures, and Labor Screens.

2 Remember if you answered NO for the question "Are all Child Work Order from the Original Inspection completed properly?" You must create a Child Work Order before submitting the QA Inspection results.

3 In this case, tap CREATE CHILD WO gray bar and follow the instruction for creating a Child or Parent Work Order.

Handheld Informer Work Management Training – Mold Inspection
December 2018
Page 290

QA: Submit The Work Order

1 If you want to a Create Child WO for an issue other than mold, tap on CREATE CHILD WO gray bar.

2 When all the errors are corrected, you can click the SUBMIT INSP/ UPDATE WO STATUS gray bar.

Handheld Informer Work Management Training – Mold Inspection
December 2018
Page 291

QA: Different Paths

There are 3 paths for a QA Work Order:

- FIRST QA can pass. This will close the original inspection WO
- SECOND QA can fail immediately if mold growth, water damage or moisture measurement is answered YES (i.e., big issues still exist). This would immediately AUTO generate a REINSPECTION WO (parent WO) upon submission.

When Re-Inspection WO and its children are done, it will generate another QA.

Handheld Informer Work Management Training – Mold Inspection
December 2018
Page 292

QA: Different Paths – (Continued)

There are 3 paths for a QA Work Order:

- THIRD QA can fail because a child Work Order to fix the issues from the first inspection wasn't done properly. So no mold/water damage/ moisture was found (all NO), but child WO question indicates a failure. In this case they must manually create a child WO to fix the improperly done one.

No Re-Inspection WO gets generated here. Once the child they created gets done, then it will generate another QA.

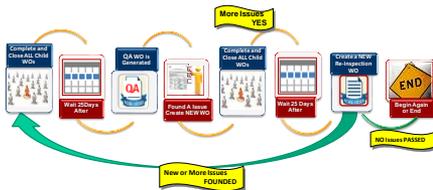
Handheld Informer Work Management Training – Mold Inspection
December 2018
Page 293

Re-Inspection



Re-Inspection Work Order Cycle Workflow

Mold was Found...



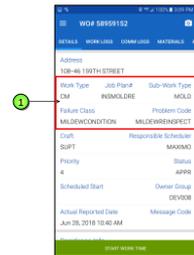
Re-Inspection Work Order

The Re-Inspection Work Order is **autogenerated** if you answer YES to one of the first 3 questions on the QA (Evaluation of Conditions).
It's a new parent WO that is auto-related to the QA (and the first original inspection).
1 The Re-Inspection Work Order appears in Show Reinspection Work Orders and Show CM/DM Work Orders.



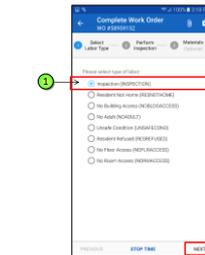
Re-Inspection Work Order Details

The Work Order Type and Job Plan have changed in Mold QA as they appear on the screen.
Work Type = CM
Job Plan = INSMOLDRE
Sub-Work Type = MGLD
Failure Class = MILDEWCONDITION
Problem Code = MILDEWREINSPECT
1 Tap START WORK TIME



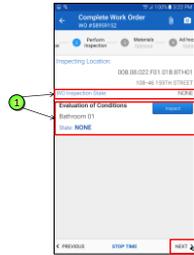
Re-Inspection Work Order

After reviewing the W/O Details the user is now ready to begin the work. START TIME is displayed at the bottom of the screen.
1 Select Inspection
2 Tap NEXT



Re-Inspection: Evaluation of Conditions

1 Re-Inspection: Evaluation of Conditions status is now NONE, and W/O Inspection State is NONE.
2 Tap INSPECT



Re-Inspection: Evaluation of Conditions

The Re-Inspection will follow the same logic/rules as the original inspection. If an issue is found, another QA will be generated after the Re-Inspection and its children are completed.
A Re-Inspection that is generated based on results from a QA Work Order shall not be considered a recurrence, as it just means the original issue/incident was not properly resolved.



Re-Inspection: Completing The Work Order

The Re-Inspection will follow the same logic/rules as the original inspection. If an issue is found, another QA will be generated after the Re-Inspection and its children are completed.

A Re-Inspection that is generated based on results from a QA Work Order shall not be considered a recurrence, as it just means the original issue/incident was not properly resolved.



301

Re-Inspection: Completing The Work Order – (Continued)

If as a result of the Re-Inspection there was a new issue, then Maximo auto-generates new Child Work Orders.

The work has to be completed on all the new Child Work Orders.

Maximo will auto-generate a new QA Work Order 5-days after closing all the new Child Work Orders.

Refer to the information at the beginning of this Reference Guide.



302

NYCHA MOLD TRAINING

Outputs, Reports, and Record Keeping

EEA
ENVIRONMENTAL EDUCATION ASSOCIATES
Working to make our communities healthy

303

Outputs

- Mold in NYCHA apartments is remediated and the root causes are identified and corrected within the allowable timeframes.
- Mold recurrence is reduced

EEA
ENVIRONMENTAL EDUCATION ASSOCIATES
Working to make our communities healthy

304

Performance Reporting

OMAR shall centrally assign staff to review reports to identify developments with:

- High parent mold work order completion time frames.
- High rates of unfounded mold work orders.
- High recurrence rates for mold work orders.

EEA
ENVIRONMENTAL EDUCATION ASSOCIATES
Working to make our communities healthy

305

Performance Reporting

OMAR shall centrally assign staff to review reports to identify developments with:

- Visit developments and inspect randomly selected apartments with high rates of unfounded or reoccurring (as applicable) mold work orders.
- Report findings on the underlying issue, i.e. a building system and/or mold inspection and remediation process issue.
- Provide follow up recommendations to the regional asset manager.

For building system issues, the supervisory staff may, for example, recommend additional repairs.

For process issues, the regional asset manager follows up with the property manager and property maintenance supervisor to address the process issue which could include providing additional training, reviewing key accountabilities, or providing progressive discipline.

EEA
ENVIRONMENTAL EDUCATION ASSOCIATES
Working to make our communities healthy

306

Performance Reporting

OMAR shall centrally assign staff trained in scheduling mold work orders to:

- Provide follow up recommendations to the Property Management Department skilled trades deputy director or regional asset manager; or the director of MRST.
- For process issues, recommendations could include providing additional training, reviewing key accountabilities, and/or providing progressive discipline



307

Reports

- Operations reports to be developed with the independent data analyst
- The IT Business Solutions Technology Department's Maximo Team retains electronically created and stored completed work orders for at least seven (7) years



308

Course Review



- Mold growth is always associated with excessive moisture problems.
- How do we identify excessive moisture and what are the **Root-Causes** of excessive moisture?
- How do we eliminate or reduce the **Root Causes**?
- How do we **remediate** mold contamination?



309

Knowledge Assessment

- See what you've learned!



310