

Riis Exhibit:

Findings and Conclusions of the Monitor

The investigation lead the Monitor to the following findings and conclusions:

- The non-functioning House Pump was a primary cause of the water complaints
 - Operations personnel at Riis were not following a particular written, standard procedure requiring regular inspection of House Pumps.
 - Only one of two House Pumps serving the tank on Building 11 was operational for a period of at least 19 days, and such period was likely longer based on the receipt of dirty water complaints prior to July 19.
 - The house pump alarm in Building 11 was not enabled or functional.
 - The broken house pump in Building 11 at Riis was randomly discovered.
- NYCHA Operational practices and personnel were significant contributing factors in the mishandling of the water issue at Riis.
 - The superintendent at Riis was inexperienced and unfamiliar with the development and had not received training specific to the location.
 - The superintendent at Riis was not appropriately attentive to the requisition needed to have the broken house pump repaired.
 - NYCHA's response to the dirty water complaints at Riis was ad hoc, untimely, wasteful, and not appropriately conceived or tailored.
 - NYCHA did not have an office with subject matter experts, or which had direct access to subject matter experts, responsible for ensuring water quality at its developments.
 - NYCHA did not have a suitably tailored standard procedure for ensuring maintenance of water systems and water quality.
 - NYCHA's general crisis management protocol had not been revised for 10 years which contributed to the failure of anyone in leadership to take responsibility.
- Water testing protocols, procedures and responses were ill-defined and poorly managed and contributed to over-reaction and lack of timely leadership.
 - NYCHA senior management's response to the unfolding situation regarding the water issues at Riis was based on ad hoc, consensus decision making, rather than through direct, informed and well considered decisions made by a single executive in consultation with managers and experts.
 - The particulars of a water testing plan responsive to complaints of cloudy water at Riis should have been discussed by NYCHA with DEP and/or DOHMH or other subject matter experts and not left to the NYCHA Technical Services Division or a vendor who was not under contract to provide the testing services required by the circumstances.
 - Timely interaction by knowledgeable NYCHA management with DEP and DOHMH would have revealed that testing for arsenic in response to complaints of dirty water at Riis was not necessary.
 - At the slight exceedance levels for arsenic reported by the lab, there was no emergency health threat to persons consuming the water at Riis. Periodic testing and result-averaging consistent with best practices and New York State guidelines should have been followed. NYCHA's failure to consult experts and manage the process was a major contributing factor in creating an atmosphere of panic and danger.
 - For the most critical period of the situation at Riis, NYCHA senior management was uninvolved or not

- present.
- o The contribution of the NYCHA Director of Healthy Homes, DEP and DOHMH to resolution of the matter was material.
 - o A new and specific contract or at a minimum a specific, defining, work order setting forth the services that the onsite vendor would provide at Riis should have been put in place.
 - o NYCHA's onsite vendor, in material part, did what it was asked to do by NYCHA without informed guidance or express direction from the non-subject matter experts at NYCHA with whom their personnel interacted, and also cooperated with this investigation.

Recommendations Made to NYCHA in 2023

Many of the following recommendations have already been adopted by NYCHA (some immediately).

To the extent not already accomplished by NYCHA, the investigations team offers the following specific recommendations:

- 1) NYCHA should establish an emergency response protocol that identifies the senior management required to receive immediate notification and participation in a particular event.
 - Attention should be paid to those events which may require expertise from without NYCHA.
 - A hierarchy of senior management should be identified to always assure availability.
 - The protocol should assure the elevation of matters to appropriate senior management.
- 2) NYCHA must take steps to educate and enforce the roles of its Operations Department in all matters, but especially in emergency situations, to assure communication within the organization, to assure that each level of personnel knows its roles and responsibilities and knows when to elevate issues to higher management and to experts, as well as to effectively hold all of its personnel accountable to follow the protocols and procedures in place.
- 3) NYCHA must take steps to attend to issues resident safety and respond without the necessity of the media or elected officials becoming involved in order to precipitate action by NYCHA.
- 4) NYCHA should put in a place a protocol that delineates decision key decision makers in vital areas and assure that at least one in each area or their subordinates with authority are availability for consultation and decision making.
- 5) NYCHA should review its agreements in place and all new contracts to ensure that the venders involved provide the services required with appropriate licensure and professional capability.
- 6) NYCHA should review its communications structure, both internally and externally, so that timely and appropriate information is communicated within and without NYCHA.
- 7) NYCHA should prepare, post (so that it is available to residents) and thereafter implement a standard operating procedure (SOP) for all developments detailing:
 - How to maintain and regularly inspect water supply systems on its properties.
 - How to keep records of all required activities, anomalies, and communications regarding water distribution systems.
 - How compliance with the SOP is audited and enforced.
 - How and when water supply and quality issues should be evaluated, documented, and communicated to specific people within NYCHA's management hierarchy who have defined responsibilities for such matters.
 - the SOP should be evaluated at least annually.

- 8) NYCHA should provide various levels of water supply system training to staff based on the degree of responsibility for water systems associated with the position.
- 9) Newly assigned superintendents and assistant superintendents should receive training that assists in informing them about the various aspects of the operational responsibilities and infrastructure at their developments.
- 10) NYCHA should prepare and publish an annual report on water quality at its developments.
- 11) NYCHA should determine through audit and then publicly post the various and total costs it incurred as a result of its handling of the water issues at Riis.