

**AIR, NOISE AND VIBRATION  
MONTHLY MONITORING REPORT  
Number 020 – March 2024**

Prepared By:  
Gramercy  
Group Inc.

<b>DDC. Project ID:</b>	BBJ M DSS	<b>Period Start:</b> 3/01/24 <b>End</b> 3/31/24
<b>Project Name:</b>	NYC Borough Based Jails System – Manhattan Dismantle and Swing Space	
<b>DDC Pin No.:</b>	8502021CR0004P-06P	

**1) Community Air Monitoring Monthly Status Summary**  
TWA – Time Weighted Average  
ug/m<sup>3</sup>- micrograms per cubic meter

Number of Workdays in a Month	Number of Air Monitoring Days in a Month	Number of Days with Dust Concentrations above Action Concentrations by Month (100 ug/m <sup>3</sup> 15 minute TWA)	Comments
24	31	0	During the month of March, there were zero days where we had a dust concentration exceedance. Air monitoring was continued throughout every day of the month even on weekends when no work was being performed. No construction-related exceedances were noted.

**Community Air Monitoring Excursions and Corrective Actions**  
Action Concentration = 100 ug/m<sup>3</sup> 15 minute TWA above background concentration  
Stop Work Concentration = 150 ug/m<sup>3</sup> 15 minute TWA above background concentration

Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (ug/m <sup>3</sup> )	Maximum Dust Reading After Corrective Action 15 Minute TWA (ug/m <sup>3</sup> )	Corrective Action
N/A	N/A	N/A	N/A

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**Narrative Summary of Air Monitoring, Excursions and Corrective Actions:**

*During the month of March 2024, we experienced ZERO instances where the dust concentration was above threshold. Construction-related levels of Particulate Matter (PM) PM10 did not surpass Daily Permissible Exposure Limits (PEL) as set by federal standards for the 24-hour Time Weighted Average (TWA), or daily value, and did not cause air quality concerns to the public or on-site workers. In the graphs below, you will see some gaps in the data at different instances due to monitoring device maintenance. Please note that when a monitor is down, the adjacent monitors are placed in locations so that their coverage will cover the area of the monitor that is not recording for that time.*

The contractor, Gramercy Group Inc, in conjunction with the contractor’s environmental specialist, has successfully implemented mitigation techniques at Action Level as well as Permissible Exposure Limits (15-Minute TWA) to suppress construction activity effects on air quality throughout the project work-zone.

**2) Community Noise Monitoring Monthly Summary**  
Weighted decibels (dBA) level

Number of Workdays in a Month	Number of Noise Monitoring Days in a Month	Number of Days with Noise Levels above Action Levels by Month (dBA)	Comments
24	31	15	During the month of March, we had 15 days where we detected noise exceedances. Noise monitoring for the month of March was continued everyday throughout the week, and even on weekends.

**Community Noise Monitoring Excursions and Corrective Actions**  
Action Level = 80 dBA  
Stop Work Level = 90 dBA

Date: Time	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Corrective Action
AQS #975- 3/1/24 @ 5:00PM	94.0 dBA		No corrective action at this time. We are not performing work in this area. This is caused by DOC bus alarms / gate siren.
AQS #975- 3/14/24 @ 12:30PM	114.8 dBA		No corrective action at this time. We are not performing work in this area. This is caused by DOC bus alarms / gate siren.
AQS #975- 3/18/24 @ 9:00AM	108.7 dBA		No corrective action at this time. We are not performing work in this area. This is caused by DOC bus alarms / gate siren.
AQS #975- 3/20/24 @ 9:00AM	90.1 dBA		No corrective action at this time. We are not performing work in this area. This is caused by DOC bus alarms / gate siren.
AQS #975- 3/26/24 @ 6:00PM	106.2 dBA		No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street.

AQS #975- 3/26/24 @ 11:00PM	102.4 dBA		No corrective action at this time. This alert was not during working hours.
AQS #975- 3/27/24 @ 3:00AM	122.9 dBA		No corrective action at this time. This alert was not during working hours.
AQS #975- 3/27/24 @ 8:00AM	121.2 dBA		No corrective action at this time. This alert was not during working hours.
AQS #975- 3/27/24 @ 1:00PM	114.5 dBA		No corrective action at this time as we are not working in this area. This was caused by DOC buses / Sally Port gate siren.
AQS #975- 3/27/24 @ 8:30PM	115.3 dBA		No corrective action at this time. This alert was not during working hours.
AQS #975- 3/28/24 @ 3:30AM	111.1 dBA		No corrective action at this time. This alert was not during working hours.
AQS #975- 3/28/24 @ 6:30AM	115.2 dBA		No corrective action at this time. This alert was not during working hours.
AQS #975- 3/28/24 @ 3:00PM	117.9 dBA		No corrective action at this time as we are not working in this area. This was caused by DOC buses / Sally Port gate siren.
AQS #975- 3/29/24 @ 7:00AM	92.8 dBA		No corrective action at this time as we are not working in this area. This was caused by DOC buses / Sally Port gate siren.
AQS #975- 3/29/24 @ 11:30AM	90.7 dBA		No corrective action at this time as we are not working in this area. This was caused by DOC buses / Sally Port gate siren.
AQS #975- 3/29/24 @ 4:00PM	90.2 dBA		No corrective action at this time as we are not working in this area. This was caused by DOC buses / Sally Port gate siren.
AQS #975- 3/30/24 @ 2:00PM	90.3 dBA		No corrective action at this time as we are not working in this area. This was caused by DOC buses / Sally Port gate siren.
AQS #977- 3/7/24 @ 12:00PM	93.0 dBA		No corrective action at this time. This was caused by heavy traffic on Centre street.
AQS #977- 3/10/24 @ 10:00AM	93.0 dBA		No corrective action at this time. This alert was not during working hours.
AQS #997- 3/12/24 @ 5:00PM	97.1 dBA		No corrective action at this time. This alert was after working hours.
AQS #998- 3/15/24 @ 8:00PM	91.0 dBA		No corrective action at this time as we are not working in this area. This alert was after working hours.
AQS #998- 3/17/24 @ 1:00AM	93.0 dBA		No corrective action at this time. This alert was after working hours.
AQS #998- 3/25/24 @ 10:00AM	94.0 dBA	56.0 dBA	This alert was investigated, and we were unable to determine if this was caused by Baxter Street traffic or processing debris. Either way we spoke to operator and made him aware of the exceedance and noise level went down.
AQS #998- 3/28/24 @ 12:41PM	106.0 dBA		No corrective action at this time. This alert was caused by a technician troubleshooting / swapping batteries. This is a false alarm.

**Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:**

During the month of March 2024, there were 15 days with 24 instances of noise level exceedances. However, only one alert was potentially caused by the site. We treated it as if we did cause it and spoke with operators and made them aware of the noise level. We then stood by to monitor as they were processing debris, and the noise level was below threshold, so we continued with our means and methods you will also see in the graphs below missing data for noise. Microphones for both AQS 997 and 993 were having issues and were fixed as soon as possible with the correct parts replaced. As stated in previous reports we investigate every alert we get even in areas we know we are not working to verify that this was caused by DOC buses / Sally Port gate siren. Overall, the noise levels for an A-weighted average 8-hour workday were below the threshold for each day of the month of March 2024.

**3) Community Vibration Monitoring Monthly Summary**

Inches per second (in/sec)

Number of Workdays in a Month	Number of Vibration Monitoring Days in a Month	Number of Days with Vibration Levels above Action Levels by Month (in/sec)	Comments
24	31	4	During the month of March 2024, we experienced 7 instances on 4 days where we received alerts. Below will be explanations of the exceedances. Vibration monitoring was continued every day of the week even when we were not working.

**Community Vibration Monitoring Excursions and Corrective Actions**

Action Level = 0.5 in/sec

Stop Work Level = 1.0 in/sec

Date: Time	Maximum Vibration Level before Corrective Action (in/sec)	Maximum Vibration Level after Corrective Action (in/sec)	Corrective Action
R07- 3/2/24 @ 8:21AM	2.279 (in/sec)	0.367 (in/sec)	We stopped work and reassessed it. We switched equipment from the Brokk-200 to the Brokk-260. This is because the hammer on this machine is smaller.
R07- 3/2/24 @ 10:18AM	5.114 (in/sec)	0.019 (in/sec)	We stopped work again to reassess. We found that this bay we were working on was 1 layer of block and unstable, so we avoided that area and moved to the bays with the double layered block.
R07- 3/2/24 @ 1:48PM	1.207 (in/sec)	0.047 (in/sec)	We stopped work in this area for the day to review different means and methods.
R11- 3/27/24 @ 9:58AM	2.027 (in/sec)		No corrective action at this time. This was caused by the technician when servicing.
R12- 3/27/24 @ 10:11AM	1.166 (in/sec)		No corrective action at this time. This was caused by the technician when servicing he had put this tool bag down and hit the monitor.
R14- 3/12/24 @ 2:45PM	3.104 (in/sec)		No corrective action at this time. This was caused by foot traffic in CJA (Criminal Justice Agency) area.
R14- 3/18/24 @ 8:54AM	2.121 (in/sec)		No corrective action at this time. This was caused by foot traffic in CJA (Criminal Justice Agency) area.

*Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:*

During the Month of March 2024, there was 7 vibration monitor exceedance. Explanations for the alerts are shown above. Please note that R07 was not reporting data for approximately three days during the month due to low battery, as shown in the graphs below. As soon as we were notified that the monitor was not reporting the batteries were replaced immediately. All other monitors showed results of vibration being under the stop work limit of 1.0 (in/sec), ensuring the structural integrity of the buildings adjacent to the site.

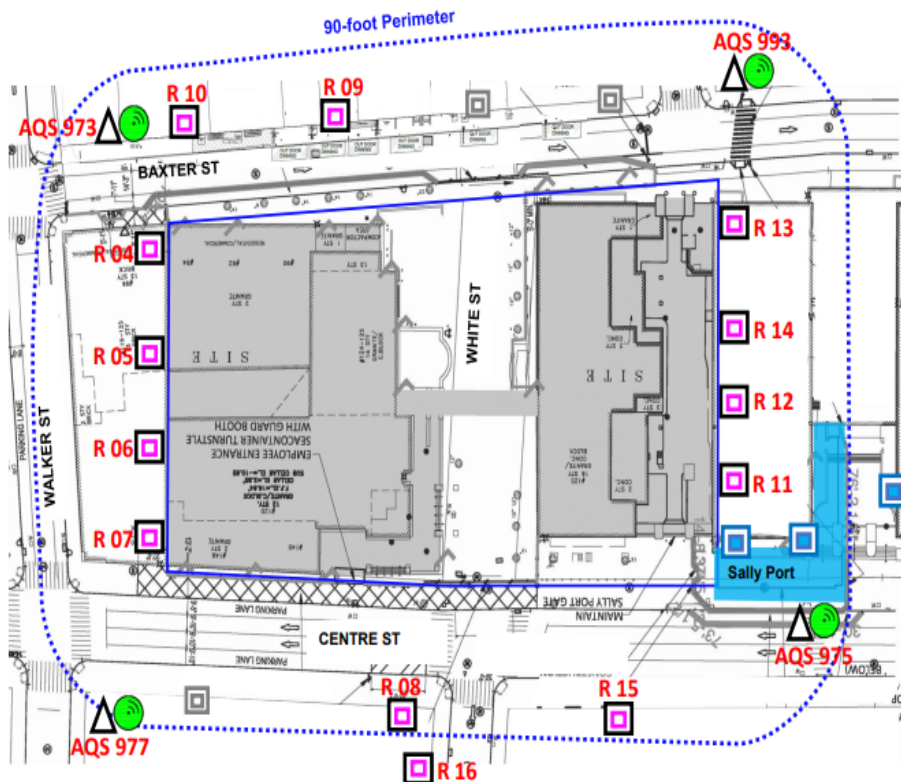
**ATTACHMENTS:**

- 1 – Include one map of monitoring station/locations
- 2 – Include Data Plots
- 3 – Include Baseline Reference
- 4 – Glossary Terms

<b>Glossary of Terms</b>	
<b>Terms</b>	<b>Descriptions</b>
<i>Warning Alerts</i>	Warning limit line for vibration monitors is not an indication to stop work. This is to notify DB team to assess the operation and know that we are causing vibration, but not anything exceeding limits and to monitor this area more closely.
<i>After Hours Alert</i>	When a noise exceeding happens on the weekends or after working hours we have no way to correct or speak on what the cause was. Generally these are caused by trucks/car horns, emergency vehicle sirens, and sometimes even pedestrian
<i>Units of Measures</i>	For AQS monitors on the noise chart you will see two different units of measurement. The Lmax1min (blue line) shows the maximum noise level for a one minute reading. The Leq 20min (black line) shows the maximum noise level for a 20 minute average reading. this is the unit of measure we will use going forward. Exceeding the limit for Lmax1min is not something that is not allowable. OSHA standard allows for the noise output from a construction site to the public to be a weighted average
<i>Action Level</i>	employer must undertake certain duties of care for exposed workers. Typical values are 80 and 85 dB measured for a whole working day with 'A' frequency weighting.
<i>Ambient Sound</i>	The total amount of all noise present at a particular place and time in the environment at the point of
<i>Leq</i>	Equivalent continuous sound pressure level. A measure of the average sound pressure level during a period of time,
<i>Fine Particles (PM 2.5)</i>	Particles that are generally 2.5 µm in diameter or smaller. This group of particles also encompasses ultrafine particles and nanoparticles which are generally classified as having diameters less than 0.1 µm.

**Map of Monitoring Locations:**  
Vibration Monitors R04 – R16  
Air Quality System (AQS) # 993, 997, 975, 977, & 998.

# Environmental Monitoring Manhattan

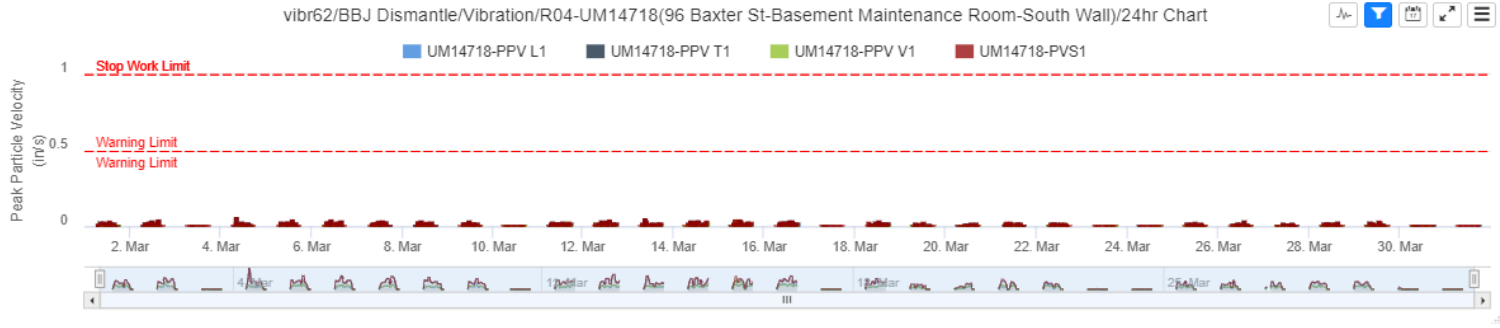


\* Dismantle project vibration, air and noise monitoring devices are installed by Design-Build team in Phase 2, after sally port construction. A vibration monitoring station was installed in the DCTV Fire house at 87 Lafayette St.

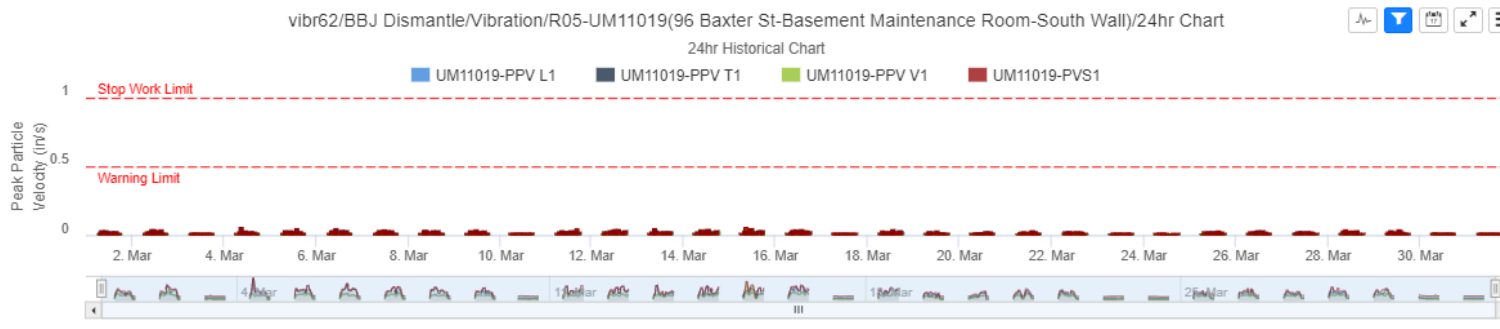
\* The location of monitoring stations presented is referential. Air/Noise Monitoring station located in Sally Port area will be relocated in Phase 2.

	Vibration Monitoring Dismantle
	Air Monitoring Station Dismantle
	Noise Monitoring Station Dismantle
	Vibration Monitoring Sallyport construction (Installed)
	Vibration Monitoring Not installed

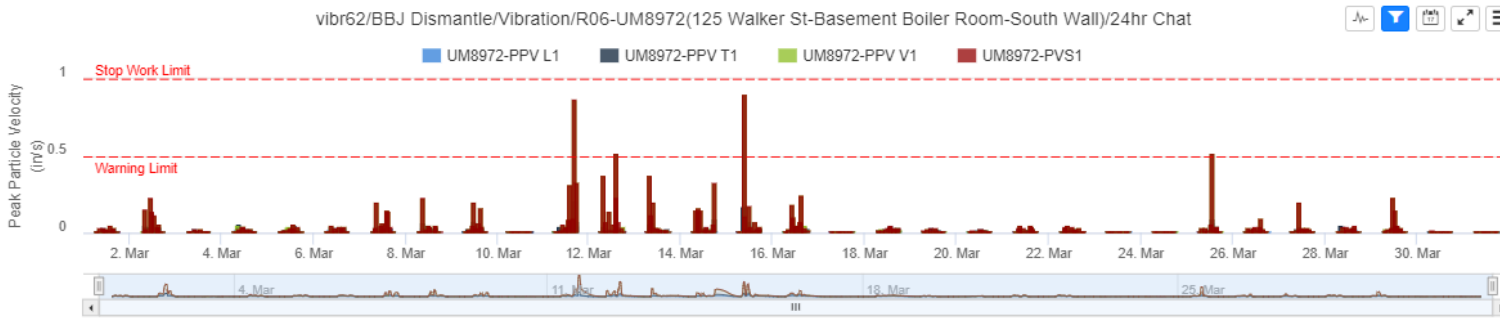
**Vibration Monitor – (R04) March 24:**



**Vibration Monitor – (R05) March 24:**

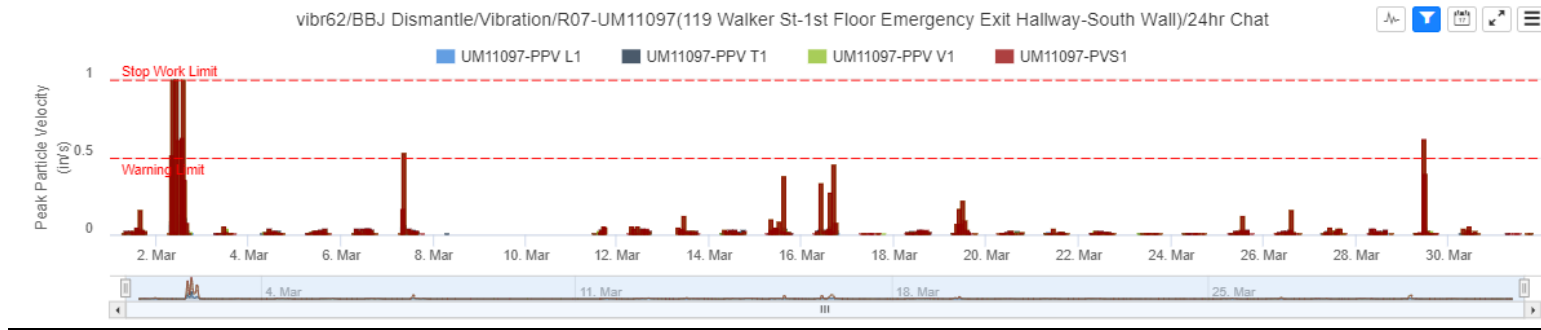


**Vibration Monitor – (R06) March 24:**

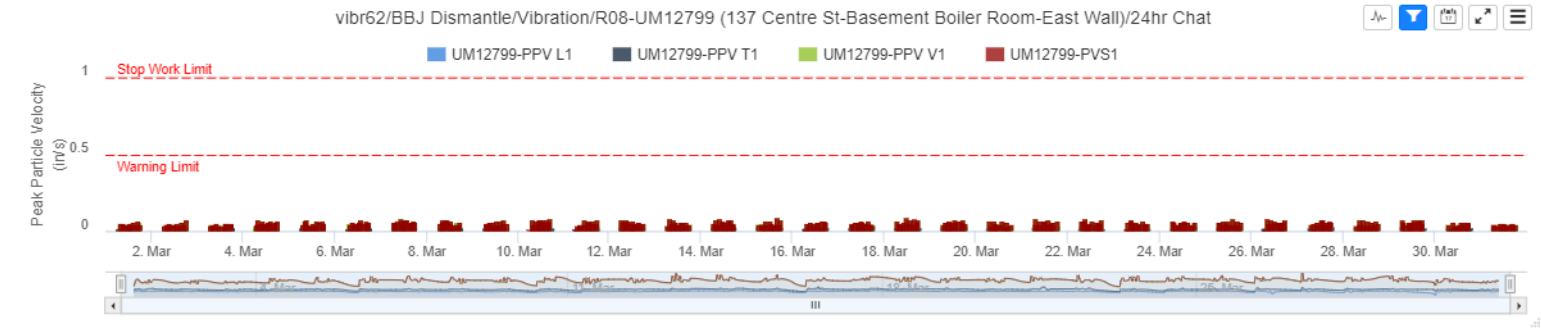




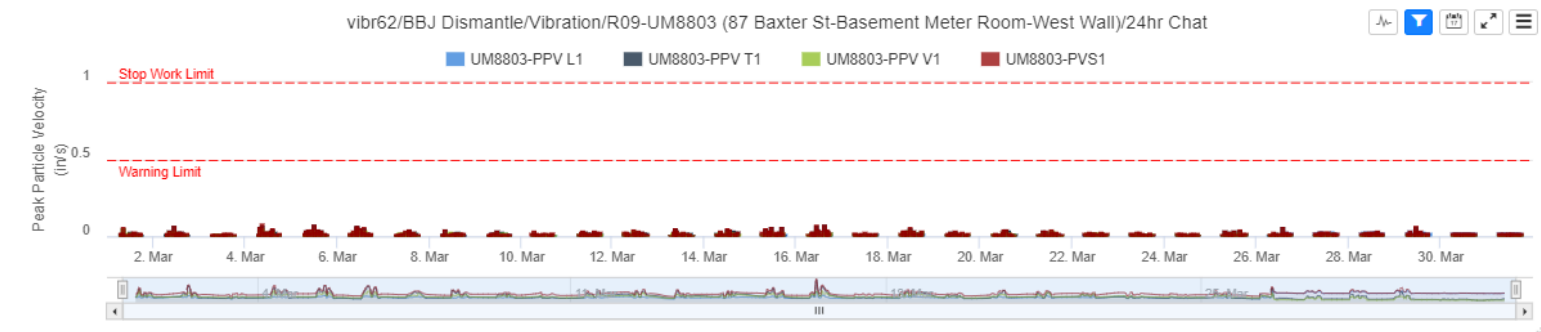
**Vibration Monitor – (R07) March 24:**



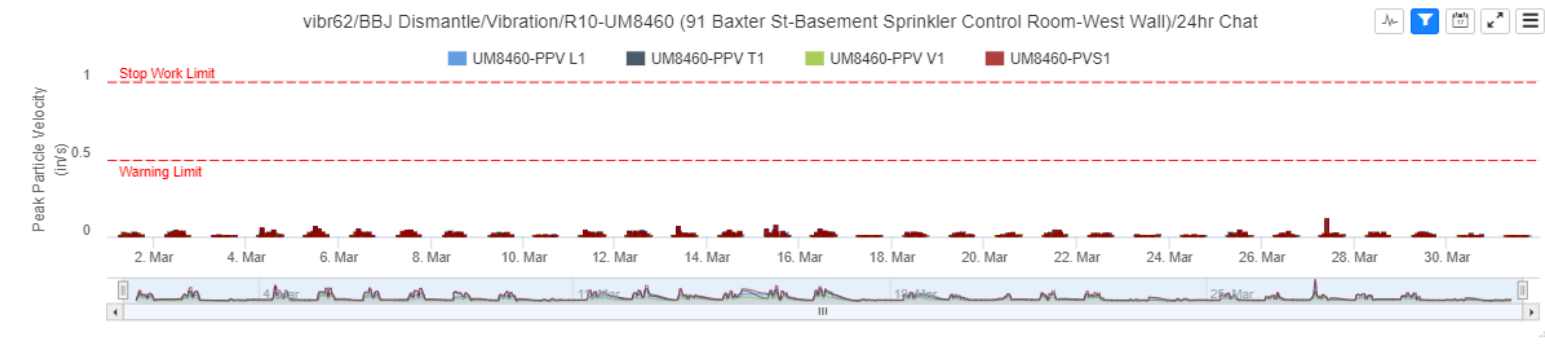
**Vibration Monitor – (R08) March 24:**



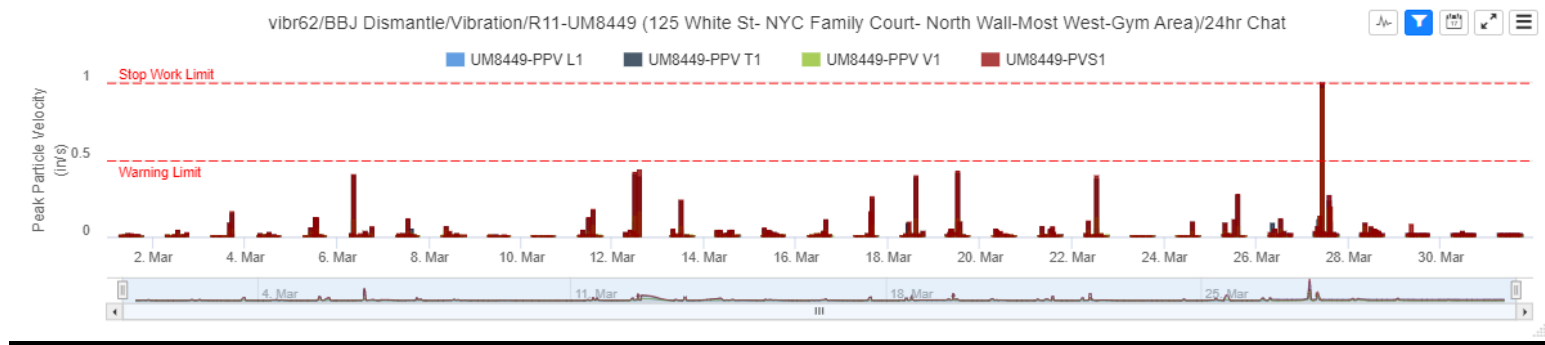
**Vibration Monitor – (R09) March 24:**



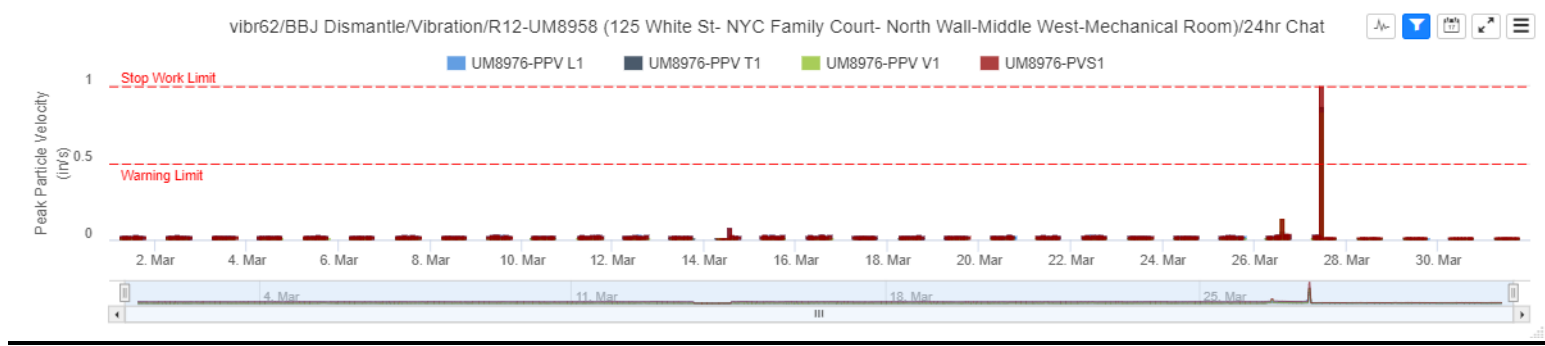
**Vibration Monitor – (R10) March 24:**



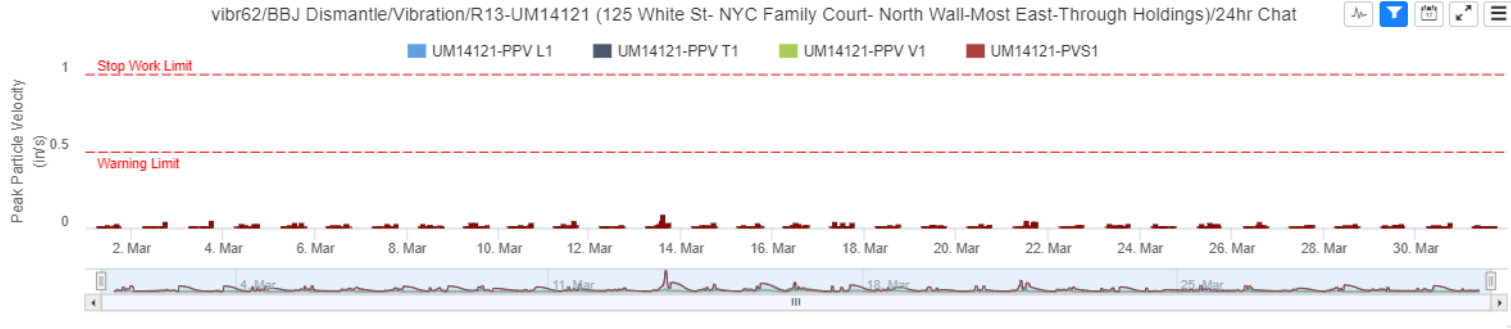
**Vibration Monitor – (R11) March 24:**



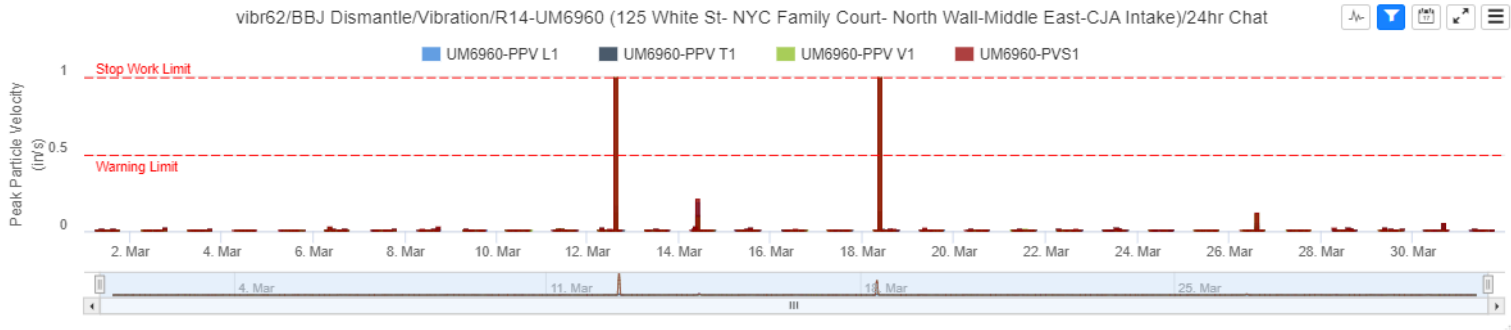
**Vibration Monitor – (R12) March 24:**



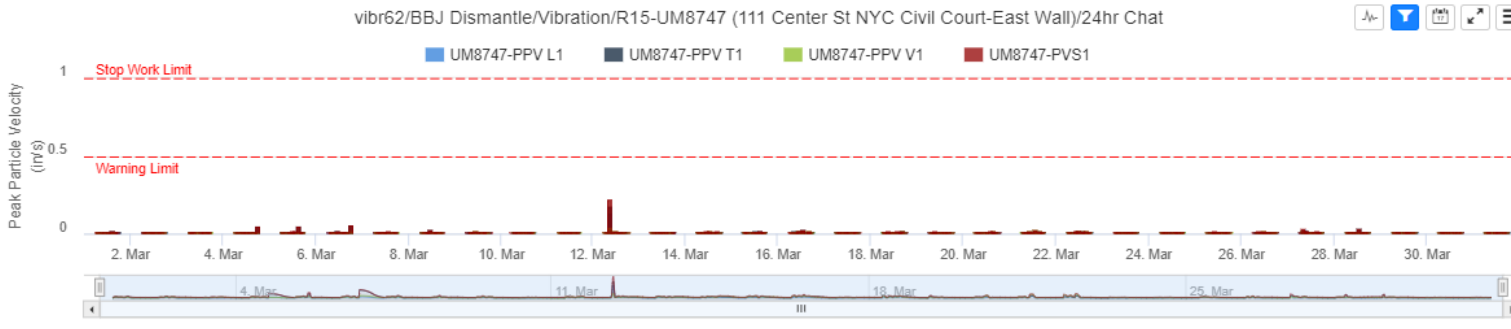
**Vibration Monitor – (R13) March 24:**



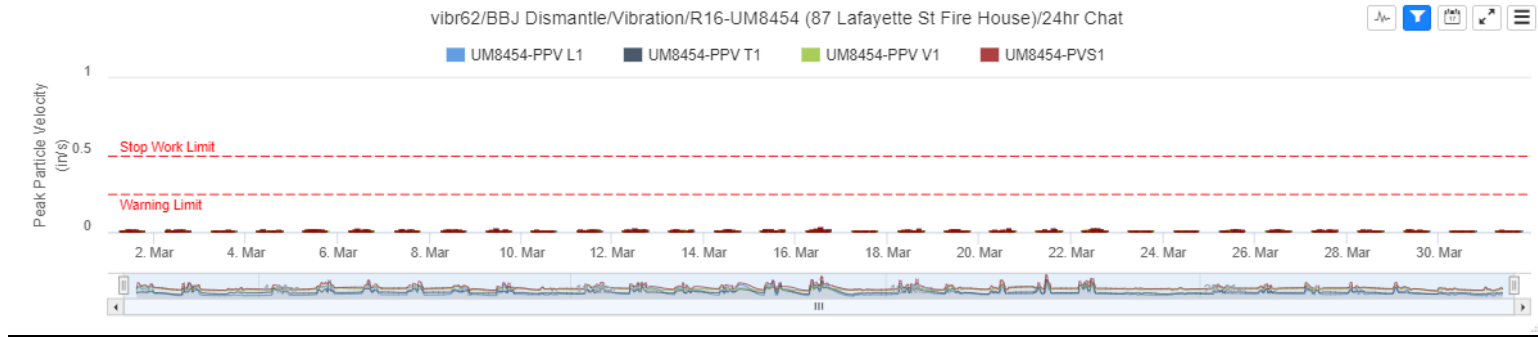
**Vibration Monitor – (R14) March 24:**



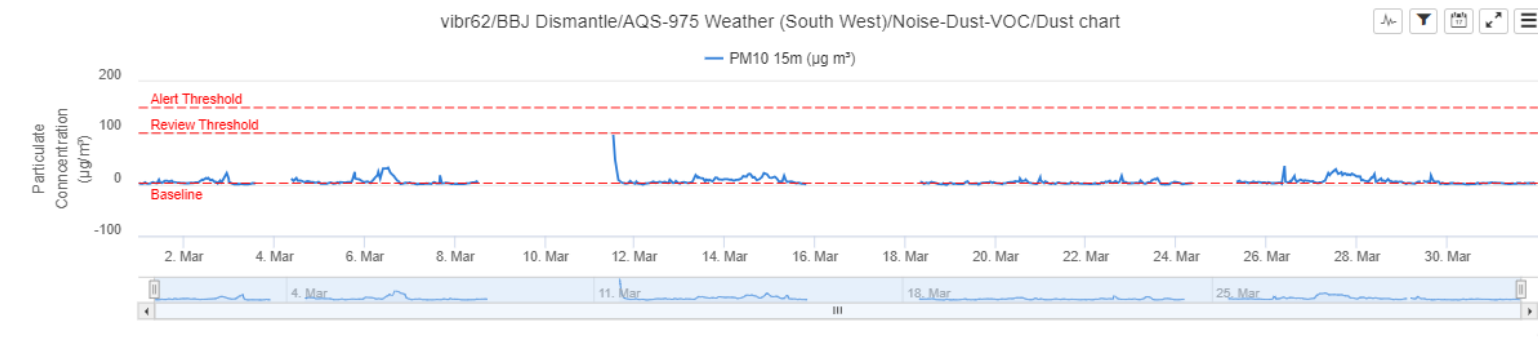
**Vibration Monitor – (R15) March 24:**



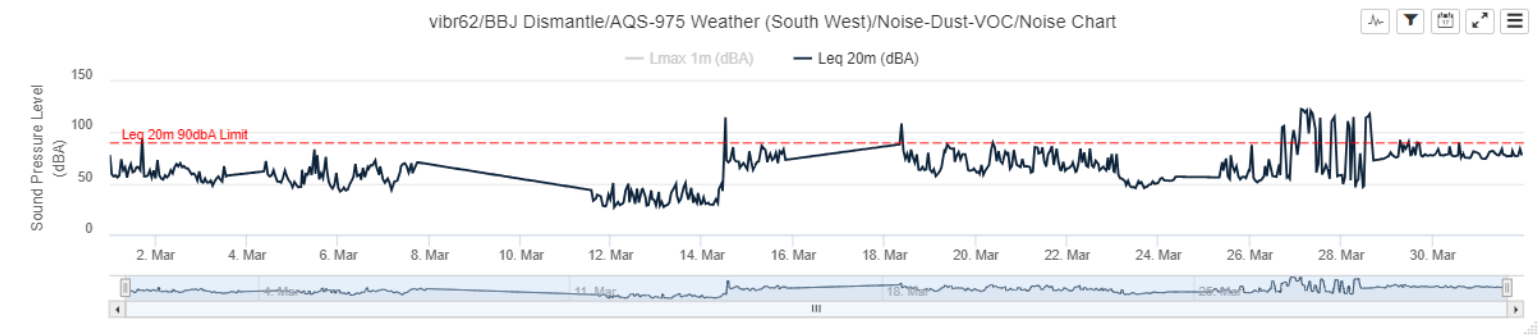
**Vibration Monitor – (R16) March 24:**



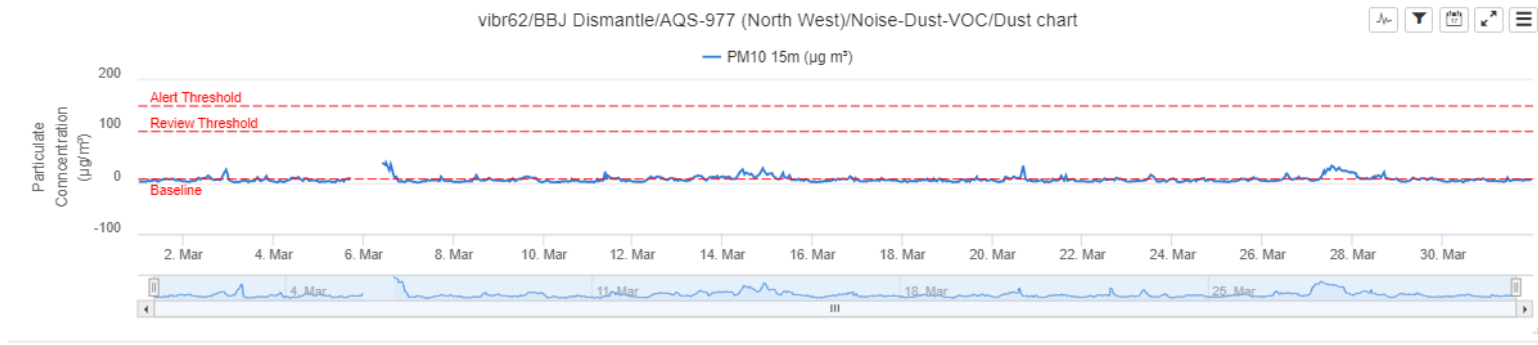
**Air Quality Systems #975 – Dust Monitoring Station – March 24:**



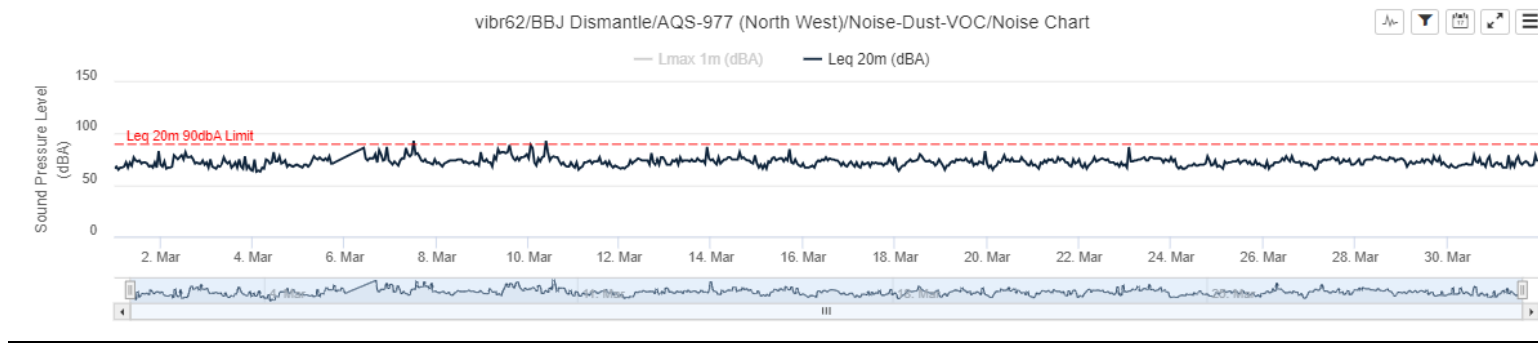
**Air Quality Systems #975 – Noise Monitoring Station – March 24:**



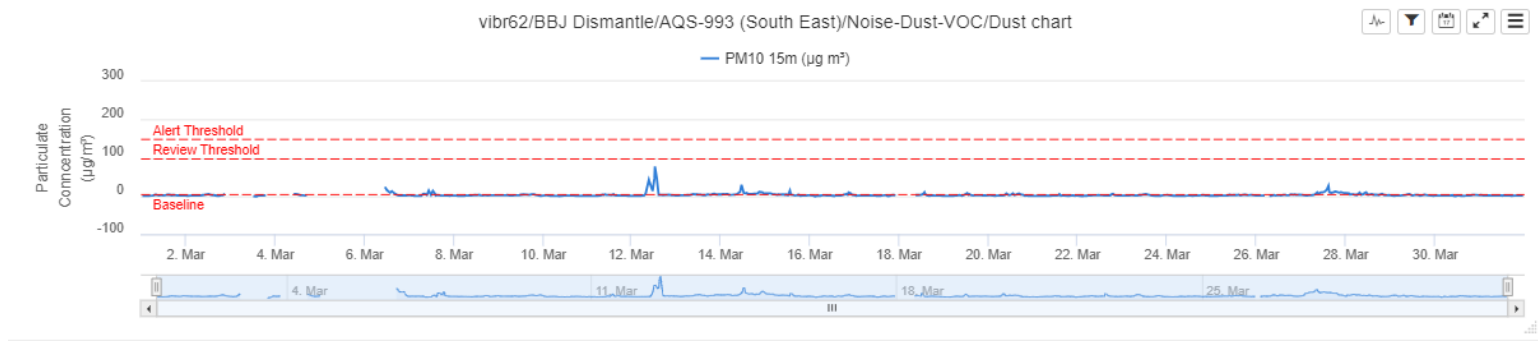
**Air Quality Systems #977 – Dust Monitoring Station – March 24:**



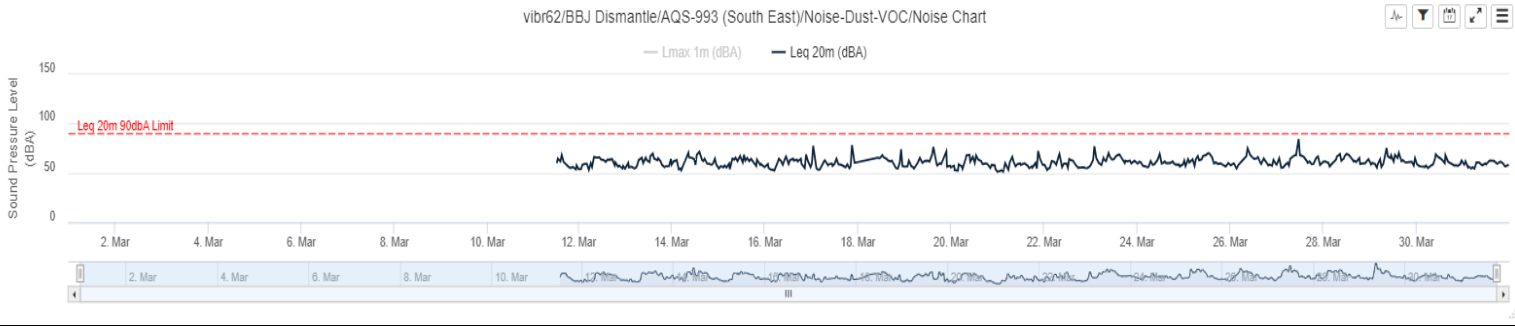
**Air Quality Systems #977 – Noise Monitoring Station – March 24:**



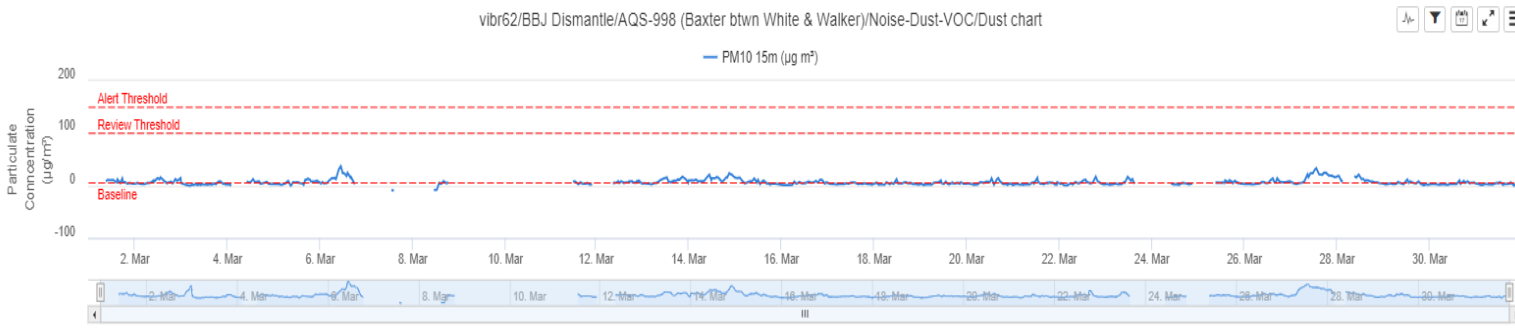
**Air Quality Systems #993 – Dust Monitoring Station – March 24:**



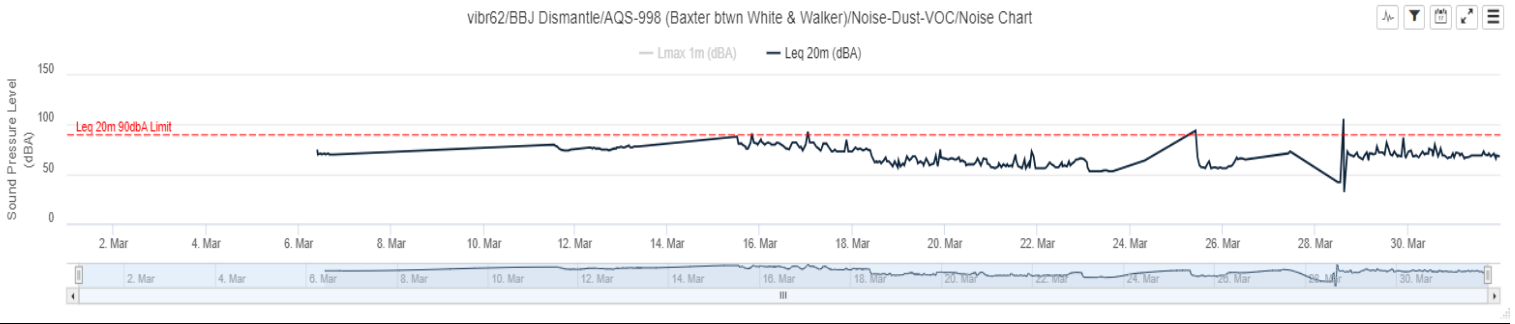
**Air Quality Systems #993 – Noise Monitoring Station – March 24:**



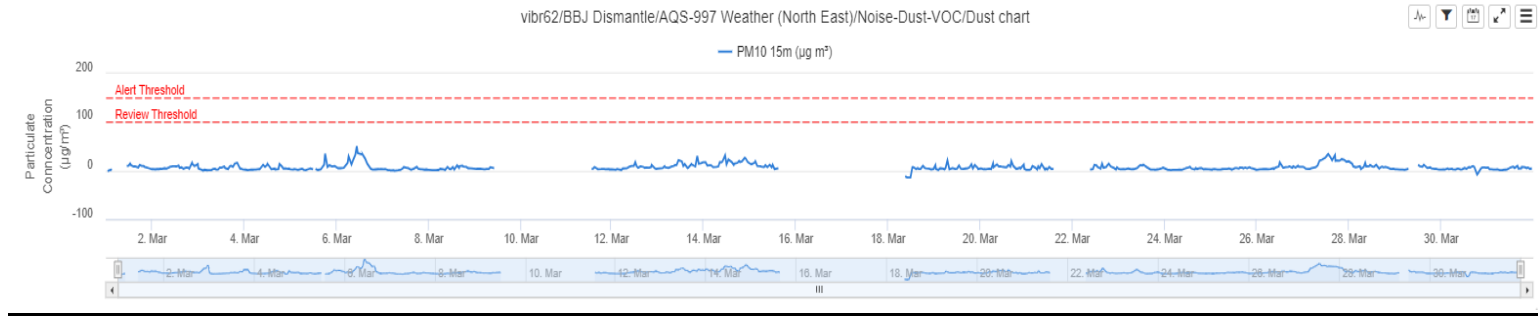
**Air Quality Systems #998 – Dust Monitoring Station – March 24:**



**Air Quality Systems #998 – Noise Monitoring Station – March 24:**



**Air Quality Systems #997 – Dust Monitoring Station – March 24**



**Air Quality Systems #997 – Noise Monitoring Station – March 24:**

