

**AIR, NOISE AND VIBRATION  
MONTHLY MONITORING REPORT  
Number 019 – February 2024**

Prepared By:  
Gramercy  
Group Inc.

<b>DDC. Project ID:</b>	BBJ M DSS	<b>Period Start:</b> 2/01/24 <b>End</b> 2/29/24	
<b>Project Name:</b>	NYC Borough Based Jails System – Manhattan Dismantle and Swing Space		
<b>DDC Pin No.:</b>	8502021CR0004P-06P		
<b>1) Community Air Monitoring Monthly Status Summary</b> 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
25	29	0	During the month of February, 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.
<b>Community Air Monitoring Excursions and Corrective Actions</b> 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



<p><b>Narrative Summary of Air Monitoring, Excursions and Corrective Actions:</b></p> <p><i>During the month of February 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.</i></p> <p>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.</p>			
<p><b>2) Community Noise Monitoring Monthly Summary</b></p> <p>Weighted decibels (dBA) level</p>			
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
25	29	11	During the month of February, we had 11 days where we detected noise exceedances. Noise monitoring for the month of February was continued everyday throughout the week, and even on weekends.
<p><b>Community Noise Monitoring Excursions and Corrective Actions</b></p> <p>Action Level = 80 dBA Stop Work Level = 90 dBA</p>			
Date: Time	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Corrective Action
AQS #975 – 2/5/24 @ 11:00 AM	91.5 dBA	72.4 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 – 2/7/24 @ 10:30 AM	98.1 dBA	68.8 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 – 2/22/24 @ 9:30 AM	90.8 dBA	73.5 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 – 2/22/24 @ 11:30 AM	91.8 dBA	77.4 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 #977 – 2/5/24 @ 9:30AM	111.4 dBA	84.7 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street.



AQS #977 – 2/7/24 @ 8:30 AM	94.48 dBA	85.1 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street
AQS #977 – 2/7/24 @ 12:00 PM	98.9 dBA	98.8 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street.
AQS #977 – 2/7/24 @ 3:30 PM	100.0 dBA	85.0 dBA	No corrective action at this time. This alert was after working hours but still investigated and found to be caused by traffic on Centre Street.
AQS #977 – 2/8/24 @ 8:00 AM	94.8 dBA	84.0 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street
AQS #977 – 2/8/24 @ 11:00 PM	91.6 dBA	80.4 dBA	No corrective action at this time. This alert was after working hours.
AQS #977 -2/9/24 @ 8:00 AM	95.6 dBA	83.4 dBA	Corrective action was to only do work in this area before the business opens (7Am – 8:30Am)
AQS #977 -2/9/24 @ 10:00 AM	93.6 dBA	84.8 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street
AQS #977 – 2/9/24 @ 4:30 PM	98.8 dBA	80.8 dBA	No corrective action at this time. This alert was after working hours.
AQS #977 – 2/10/24 @ 1:00 PM	98.9 dBA	78.7 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street
AQS #977 – 2/10/24 @ 11:30 PM	101.7 dBA	84.7 dBA	No corrective action at this time. This alert was after working hours.
AQS #977 – 2/10/24 @ 3:00 PM	104.7 dBA	88.2 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street
AQS #977 – 2/11/24 @ 2:00 PM	94.3 dBA	78.7 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street
AQS #977 – 2/11/24 @ 8:30 PM	96.2 dBA	79.3 dBA	No corrective action at this time. This alert was after working hours.
AQS #977 – 2/14/24 @ 1:30 PM	93.6 dBA	83.5 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street
AQS #977 – 2/14/24 @ 4:00 PM	94.7 dBA	83.5 dBA	No corrective action at this time. This alert was after working hours.
AQS #977 – 2/15/24 @ 11:00 AM	91.2 dBA	84.6 dBA	No corrective action at this time. This alert was investigated immediately and was found to be caused by traffic on Centre Street
AQS #977 – 2/16/24 @ 11:00 PM	91.7 dBA	82.1 dBA	No corrective action at this time. This alert was after working hours.
AQS #977 – 2/29/24 @ 12:00 PM	92.0 dBA	79.0 dBA	No corrective action at this time as this was during lunch break. This alert was investigated immediately and was found to be caused by traffic on Centre Street.
AQS #993 - 2/01/24 @ 9:21 AM	101.1 dBA	75.6 dBA	This alert was caused by hoist installation activities on Baxter Street. The location of AQS #993 was in place where the Baxter Street hoist needed to be installed. We had material deliveries / men working directly next to this monitor that day. After investigating and speaking with the team, the monitor was in the way of the work we had to perform and relocated to get it out of the way of the work while still maintaining approved monitoring location.



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

During the month of February 2024, there were 11 days with noise level exceedances and a total of 25 alerts. See data above and graphs below. After investigating every alert we get, it is clear that all of the alerts from AQS #977 are due to roadway traffic and sidewalk traffic while AQS #975 are due to the Sally Port Gate siren and DOC buses. When we get these alerts from these monitors we respond immediately and double check the noise levels with our hand-held monitor and visually inspect the area / site to see if we are contributing. Explanations for these exceedances are in the corrective action column above. As stated, AQS #993 needed to have its location adjusted. The monitor was directly located where we need to install the hoist on Baxter Street. We shifted the monitor over to get it out of the works way while still maintaining approved location of the AQS Monitor. To clarify and avoid any confusion, AQS #975 shows a "exceedance" from the 6<sup>th</sup> to the 8<sup>th</sup>. When you see a flat line like this for the AQS monitors it means noise was not recording and the graph connects the latest points of data. This is not an exceedance but the monitor having a dead battery. You can verify this by comparing the flat lines in the noise charts to the gaps in the dust data for the same monitor. Overall, the noise levels for an A-weighted average 8-hour workday were below the threshold for each day of the month of February 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
25	29	1	During the month of February 2024, we experienced one instance 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
R06 – 2/21/24 @ 1:00 PM	8.583 (in/sec)	0.015 (in/sec)	No corrective action at this time. This was due to a Vibranalysis technician servicing the unit. Confirmed by Vibranalysis.



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

During the Month of February 2024, there was one vibration monitor exceedance. This exceedance was confirmed to not be the result of any construction activity. Explanations for the alerts are shown above. Please note that R11 was down for some time. This was due to electrical work we had to perform in that area which required the power to be off where that monitor was located. After we finished the electrical work, we needed to perform the monitor was powered back up immediately. All other monitors showed results of vibration being under the stop work limit of 1.0 (in/sec), so there was no need for corrective action at this time.

**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.

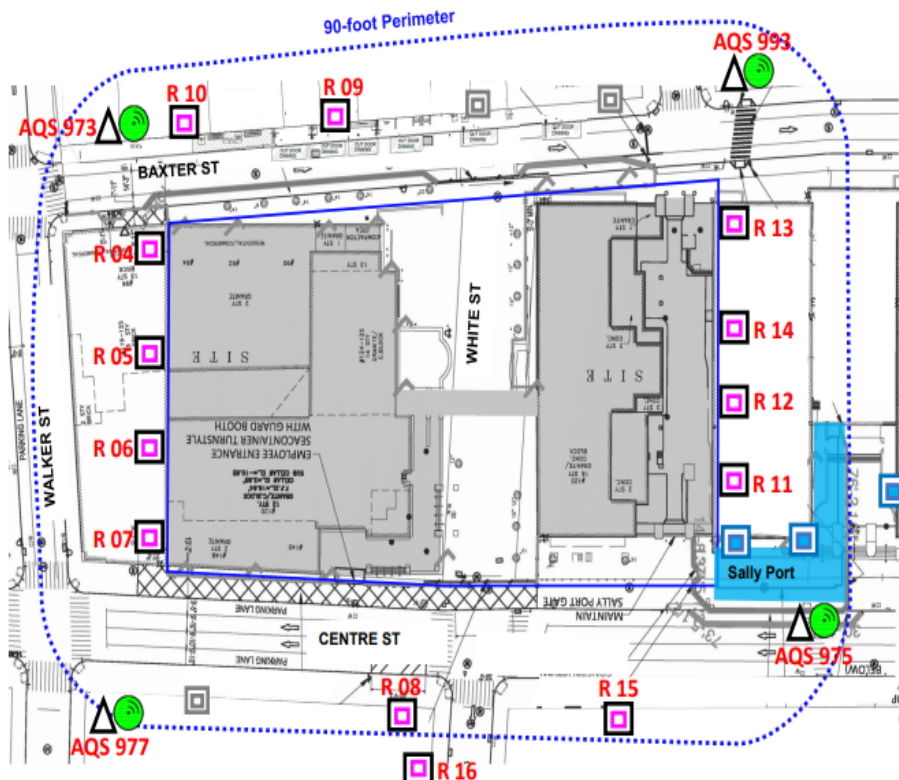


## Map of Monitoring Locations:

Vibration Monitors R04 – R16

Air Quality System (AQS) # 993, 997, 975, 977, & 998.

# Environmental Monitoring Manhattan



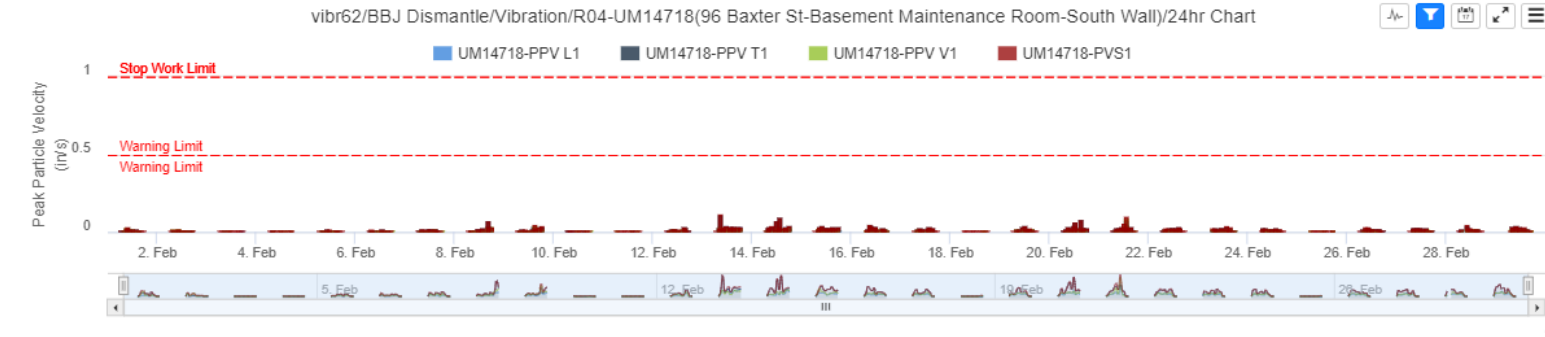
\* Dismantle project vibration, air and noise monitoring devices are installed by Design-Build team in Phase 2, after sally port construction. A vibration monitoring station was installed in the DCTV Fire house at 87 Lafayette St.

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

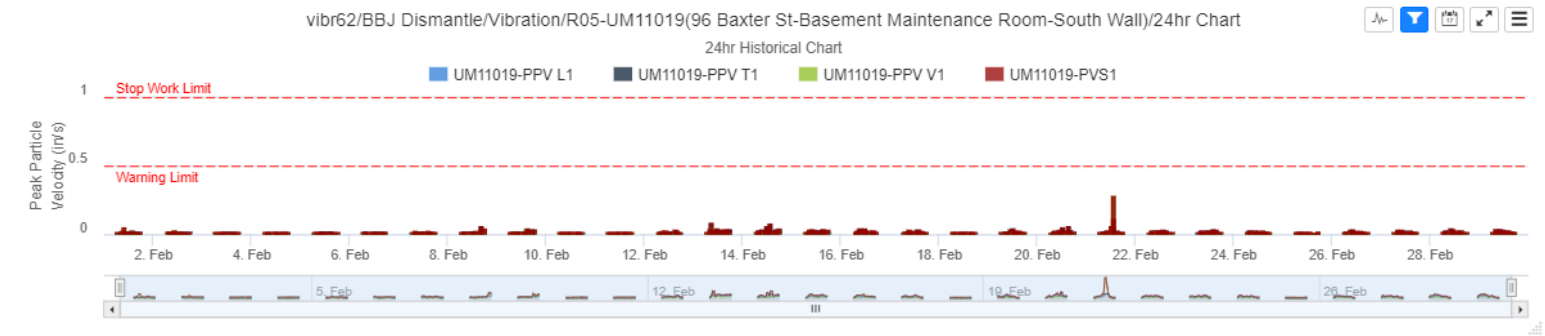
	Vibration Monitoring Dismantle
	Air Monitoring Station Dismantle
	Noise Monitoring Station Dismantle
	Vibration Monitoring Sallyport construction (Installed)
	Vibration Monitoring Not installed



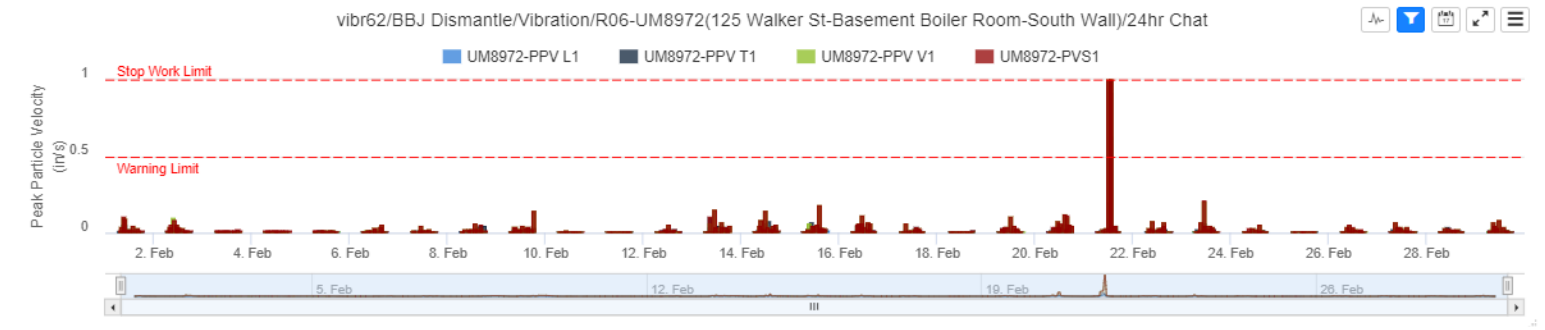
### Vibration Monitor – (R04) February 24:



### Vibration Monitor – (R05) February 24:

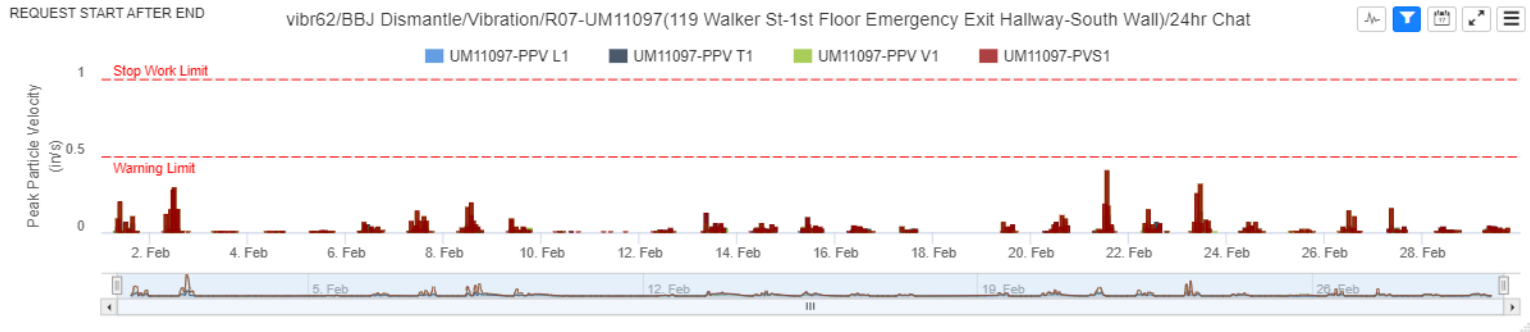


### Vibration Monitor – (R06) February 24:

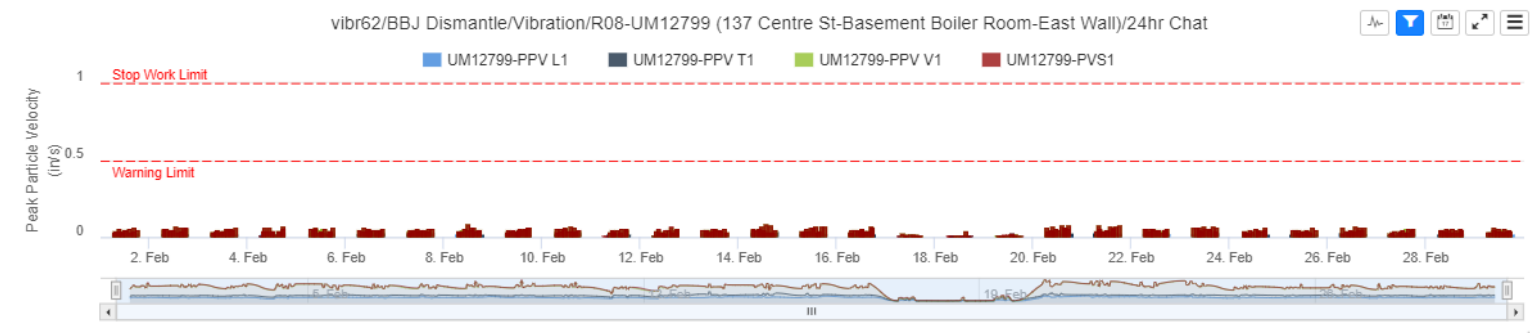




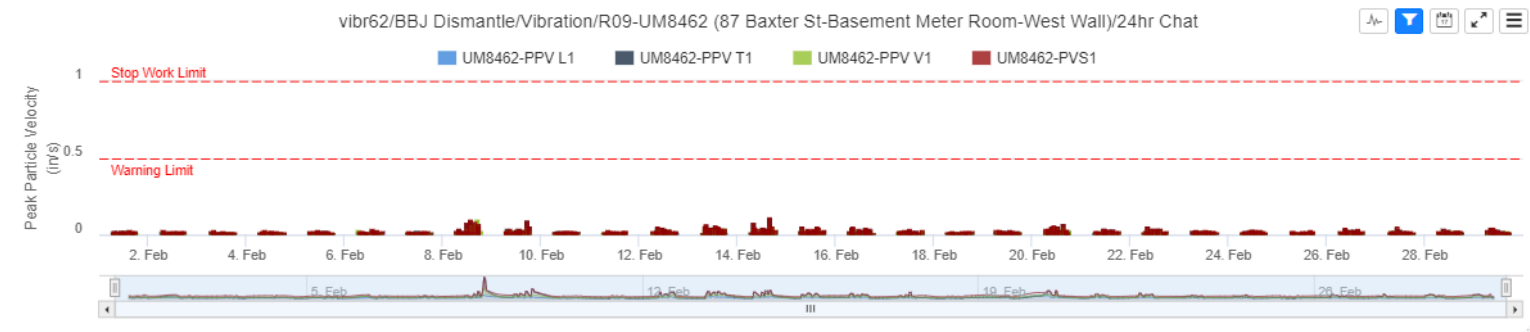
### Vibration Monitor – (R07) February 24:



### Vibration Monitor – (R08) February 24:

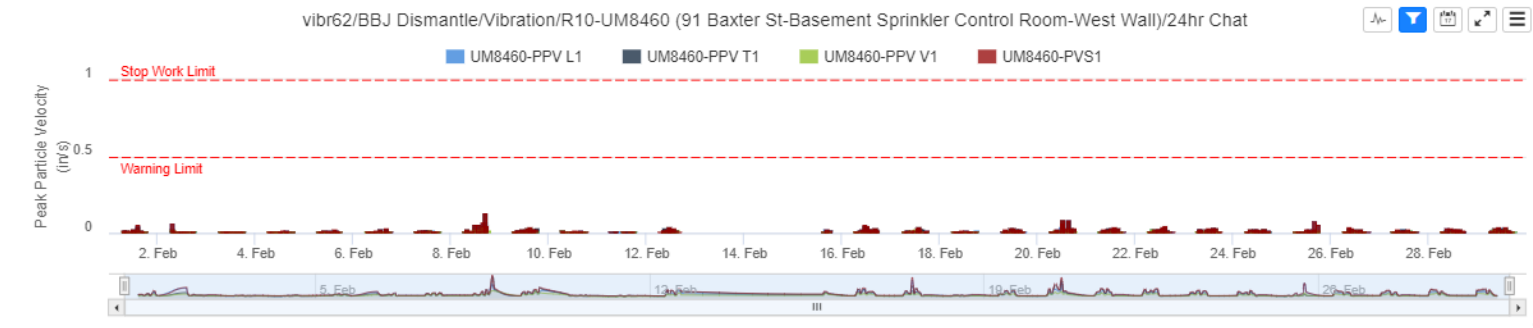


### Vibration Monitor – (R09) February 24:

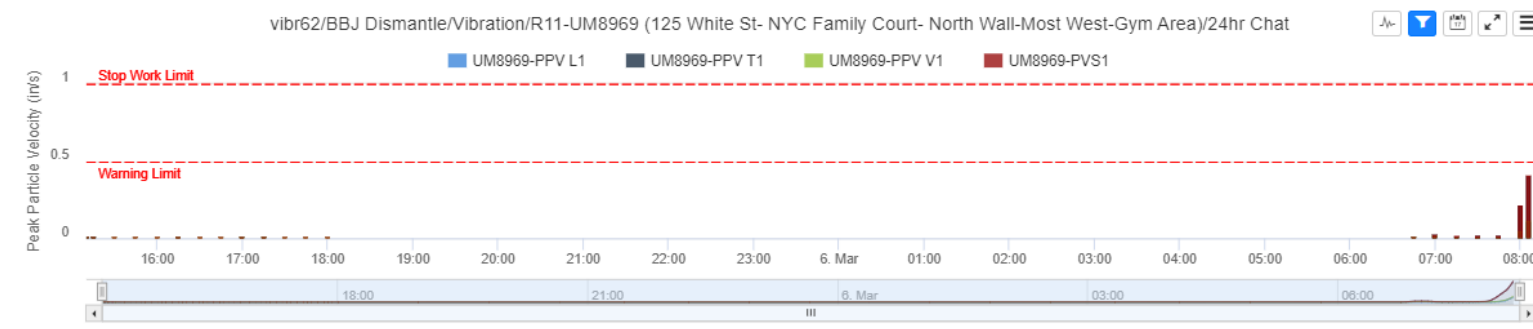




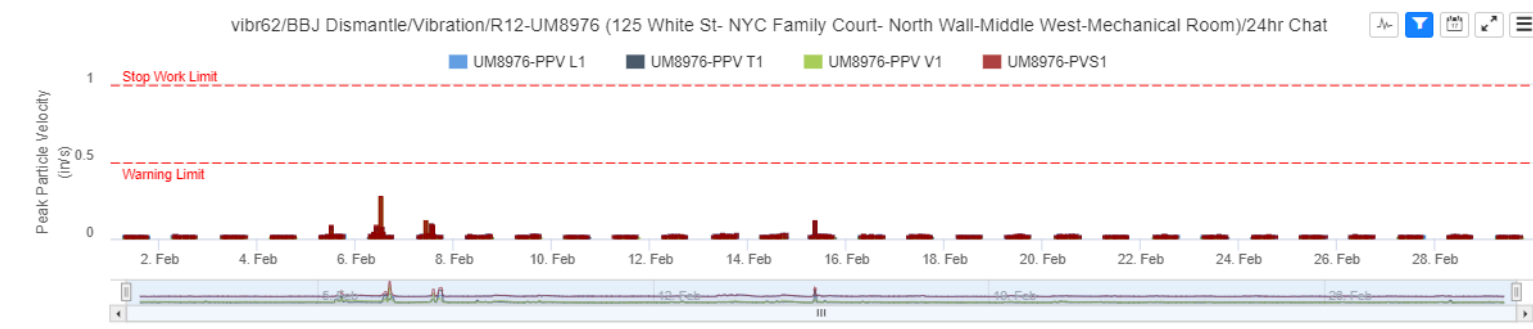
### Vibration Monitor – (R10) February 24:



### Vibration Monitor – (R11) February 24:

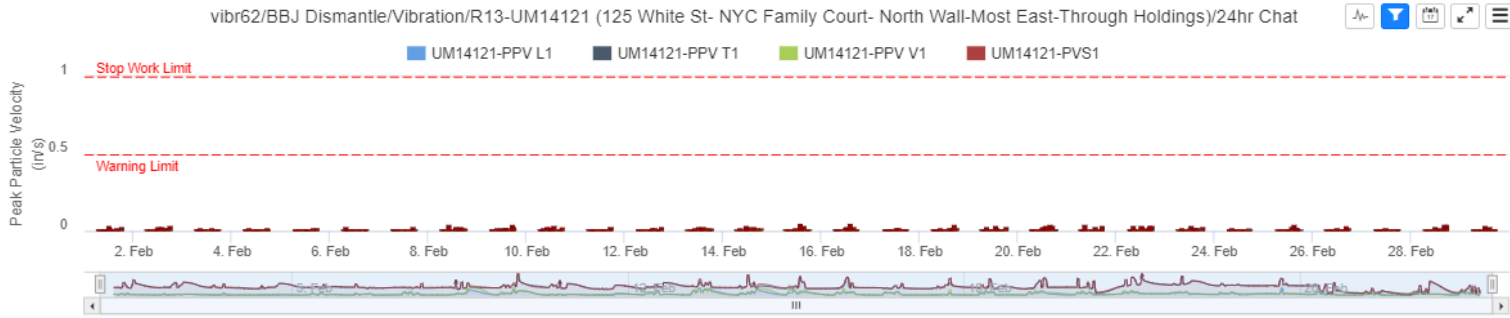


### Vibration Monitor – (R12) February 24:

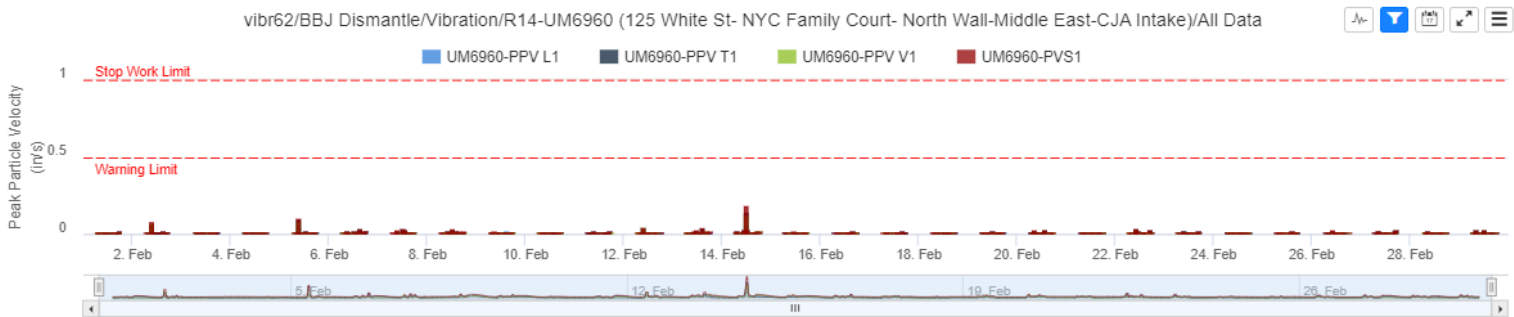




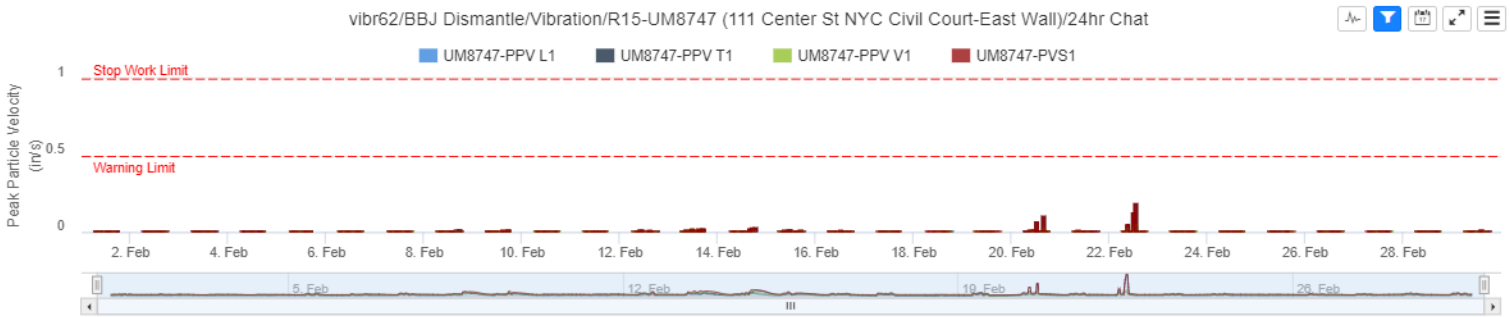
### Vibration Monitor – (R13) February 24:



### Vibration Monitor – (R14) February 24:

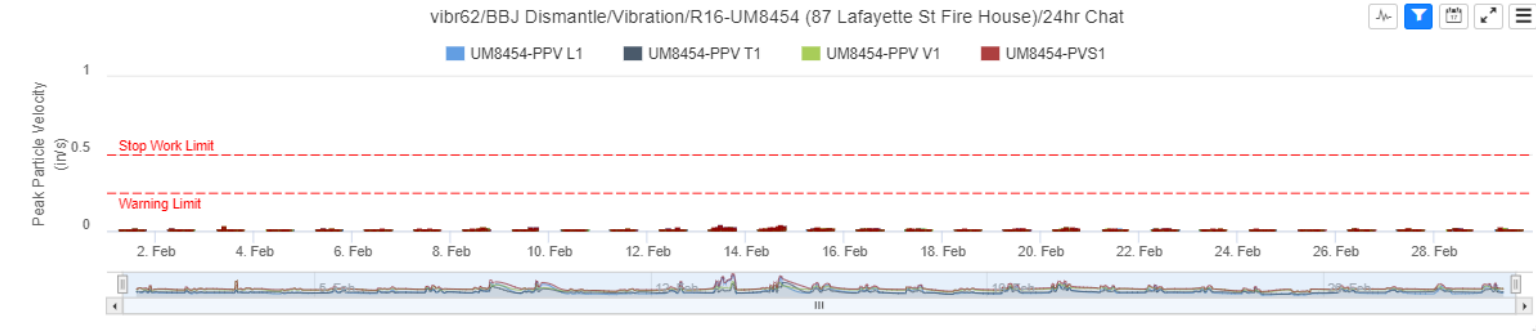


### Vibration Monitor – (R15) February 24:

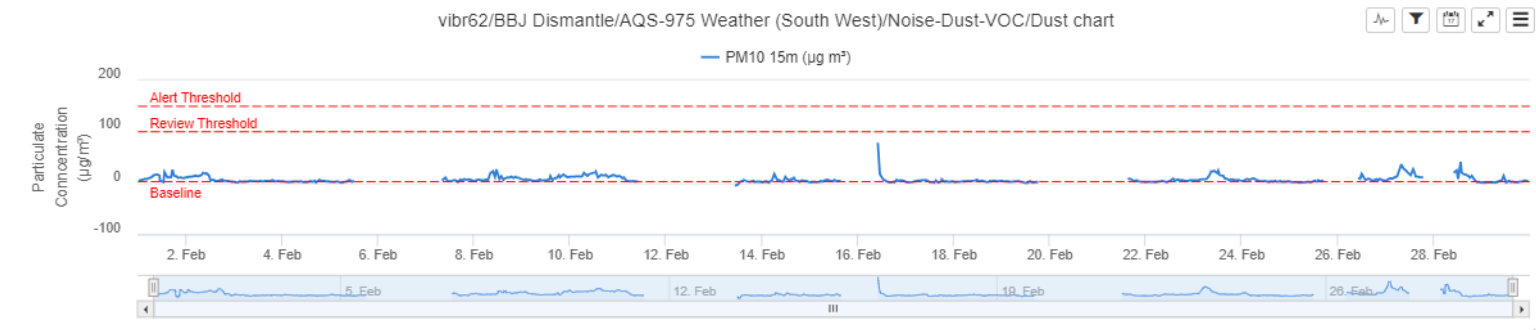




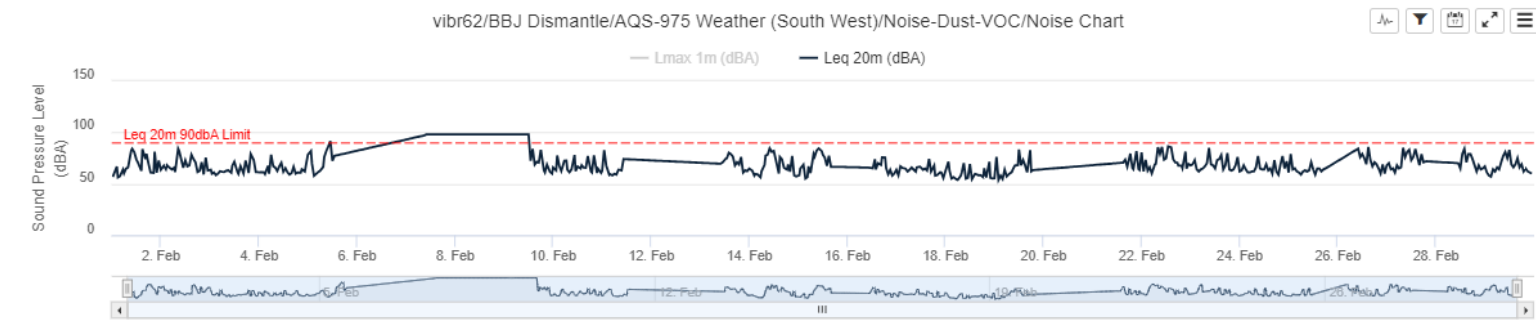
### Vibration Monitor – (R16) February 24:



### Air Quality Systems #975 – Dust Monitoring Station – February 24:

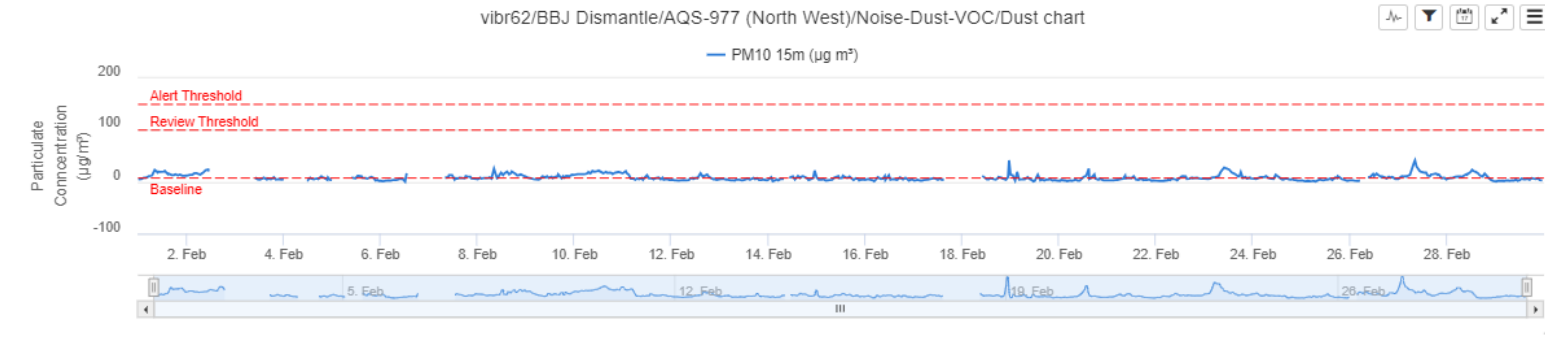


### Air Quality Systems #975 – Noise Monitoring Station – February 24:

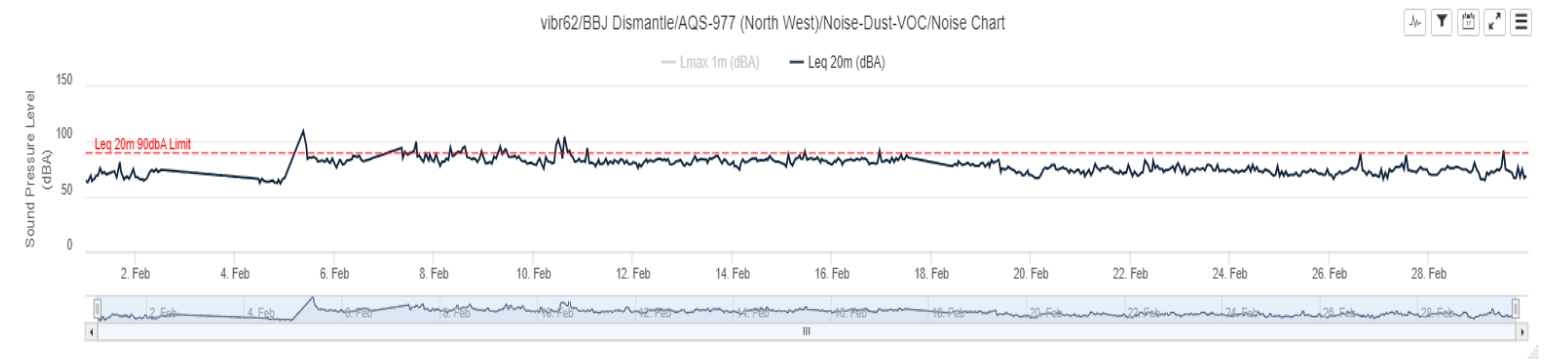




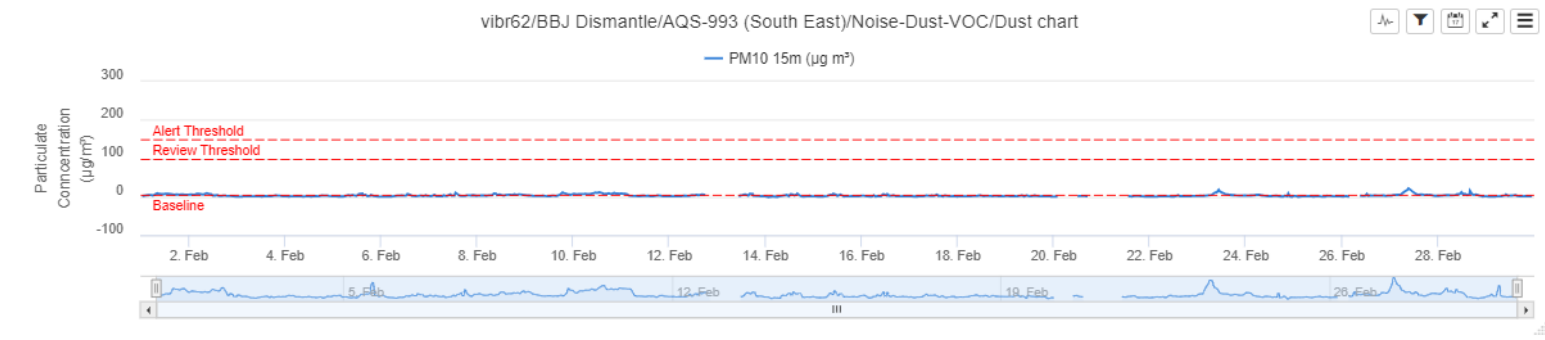
### Air Quality Systems #977 – Dust Monitoring Station – February 24:



### Air Quality Systems #977 – Noise Monitoring Station – February 24:

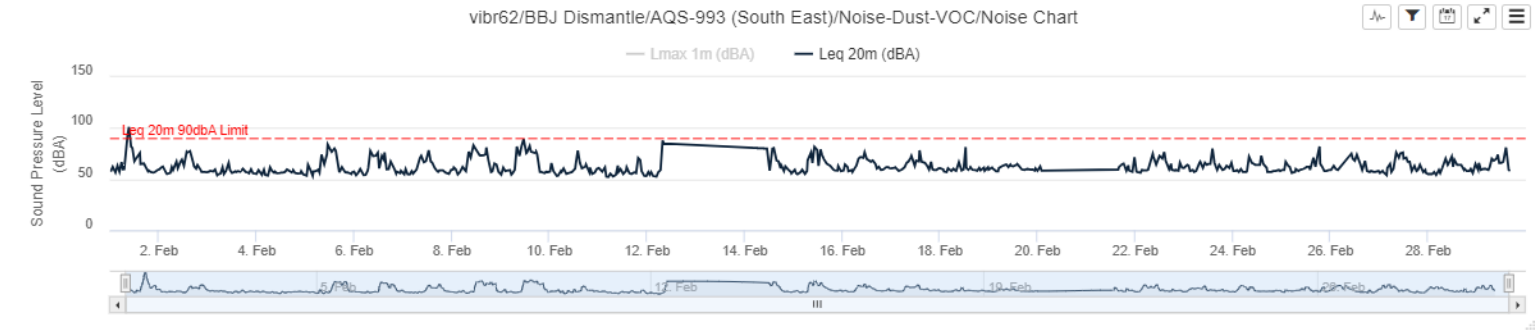


### Air Quality Systems #993 – Dust Monitoring Station – February 24:

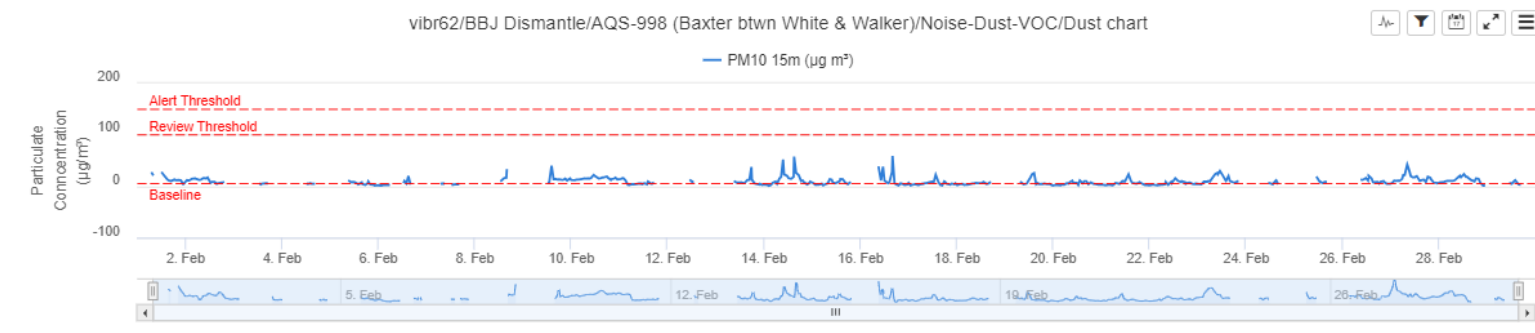




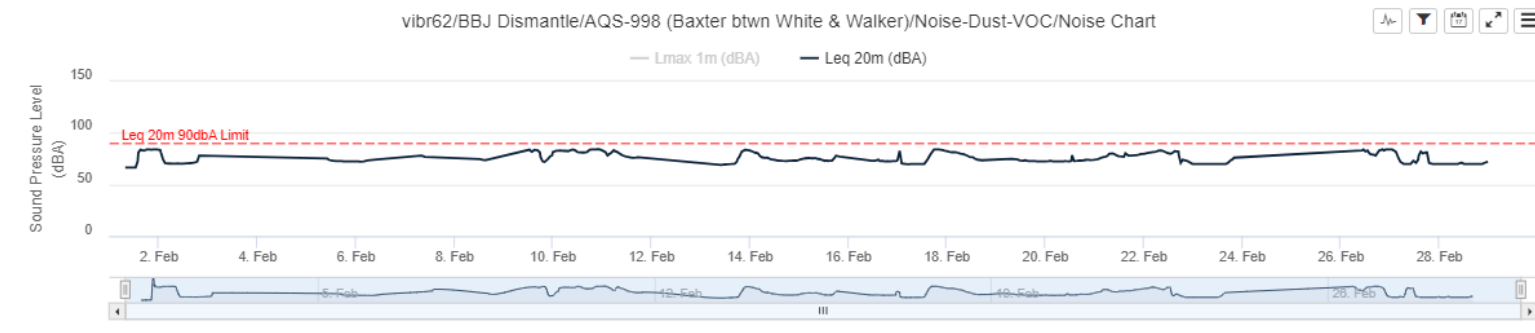
**Air Quality Systems #993 – Noise Monitoring Station – February 24:**



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

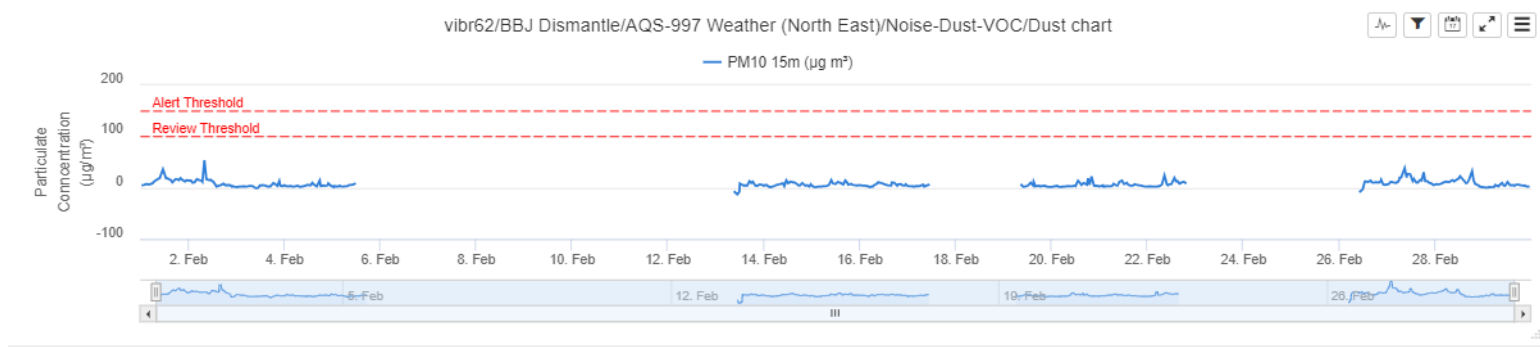


**Air Quality Systems #998 – Noise Monitoring Station – February 24:**





## Air Quality Systems #997 – Dust Monitoring Station – February 24



## Air Quality Systems #997 – Noise Monitoring Station – February 24:

