AIR, NOISE AND VIBRATION MONTHLY MONITORING REPORT
Number 018 – January 2024

Prepared By:
Gramercy
Group Inc.

DDC. Project ID:	BBJ M DSS	**Period Start:** 1/01/24 **End** 1/31/24
Project Name:	NYC Borough Based Jails System – Manhattan Dismantle and Swing Space	
DDC Pin No.:	8502021CR0004P-06P	

1) Community Air Monitoring Monthly Status Summary

TWA – Time Weighted Average
ug/m^3- micrograms per cubic meter

Number of Workdays ina Month	Number of Air Monitoring Days in a Month	Number of Days with Dust Concentrations above Action Concentrations by Month (100 ug/m^3 15 minute TWA)	Comments
23	31	1	During the month of January, there was one day where we had a dust concentration exceedance. This exceedance occurred on a Sunday when no work was being performed. 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^3 15 minute TWA above background concentration
Stop Work Concentration = 150 ug/m^3 15 minute TWA above background concentration

Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (ug/m^3)	Maximum Dust Reading After Corrective Action 15 Minute TWA (ug/m^3)	Corrective Action
AQS # 998 - 1/21/24 @ 4:30 PM	200 (ug/m^3)	21.526 (ug/m^3)	No corrective action feasible at this time as this exceedance occurred on a Sunday when no construction was taking place. Air monitoring is and will be continued every day of the week even on weekends when no work is taking place.

Narrative Summary of Air Monitoring, Excursions and Corrective Actions:

During the month of January 2024, we experienced one instance where the dust concentration was above threshold. As stated above this occurred on a Sunday when no work was being performed. Besides this one instance that we cannot speak on, 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 devises maintenance. Also please note that when a monitor is down, the adjacent monitors are placed in locations 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
23	31	15	Noise monitoring for the month of January 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 - 1/1/24 @ 2:00 AM	111.4 dBA	88.7 dBA	No corrective action at this time. This is before working hours.
AQS #975 - 1/1/24 @ 7:00 AM	112.6 dBA	88.759 dBA	No corrective action at this time. This was just before work started to commence.
AQS #975 - 1/6/24 @ 1:00 AM	99.0 dBA	75.1 dBA	No corrective action at this time. This was before working hours.
AQS #975 - 1/6/24 @ 4:00 AM	100.8 dBA	64.2 dBA	No corrective action at this time This was before working hours.
AQS #975 - 1/6/24 @ 10:00 AM – 7:30PM	Average Reading of 104.6 dBA	80.7 dBA	No Corrective action at this time. We went over to this location multiple times to investigate. This was caused by a heavy

			traffic day with DOC buses. We were not performing work in this area.
AQS #975 – 1/6/24 @ 10:00 PM – 7:00 AM	Average Reading of 110.35 dBA	79.4 dBA	No corrective action at this time. These exceedances happened all throughout the middle of the night when no work was being performed at all.
AQS #975 – 1/7/24 @ 2:00 PM	90.3 dBA	70.0 dBA	No corrective action at this time. There is no work being performed in this area and this took place on a Sunday when no work was being performed at all.
AQS #975 – 1/9/23 @ 8:00 AM	100.9 dBA	83.2 dBA	No corrective action at this time. There was no construction work being performed in this area.
AQS #975 – 1/11/24 @ 6:30 AM	100.3 dBA	85.9 dBA	No corrective action at this time. This was before working hours and we were not performing any work in this area.
AQS #975 – 1/11/24 @ 1:00 PM	97.5 dBA	70.4 dBA	No corrective action at this time. We were not performing any work in this area.
AQS #975 – 1/12/24 @ 11:00 AM	107.0 dBA	77.02 dBA	No corrective action at this time. We were not performing ay work in this area.
AQS #975 – 1/30/24 @ 11:00 AM	92.2 dBA	70.9 dBA	No corrective action at this time. We were not performing any work in this area
AQS #998 – 1/5/24 @ 3:00 PM	90.4 dBA	70.0 dBA	This was due to loading dumpsters with debris. When this happens, we speak to our operator and advise him that we are exceeding due to loading, and he adjusts his movements accordingly.
AQS #998 – 1/15/24 @ 1:00 AM	91.2 dBA	76.4 dBA	No corrective action at this time This was before working hours.
AQS #997 – 1/27/24 @ 3:00 PM	91.6 dBA	72.6 dBA	No corrective action at this time This exceedance happened on a Saturday when no work was being performed.

Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:

During the month of January 2024, we experienced noise levels greater than the alert threshold at times. Above you will see the monitors that had alerted us with dates and times. As you can see from the corrective action explanations, most of the alerts were not caused by construction activity. AQS #975 is located on Centre Street right near the traffic light / DOC sallyport where the DOC buses use their sirens to signal that they are outside the gate. Depending on how close they are to the monitor this siren will set it off and cause an alert. On top of the DOC buses sounding off the alarms to signal to the control booth they have arrived, the gate itself has a siren that sounds to alert DOC personnel that the Sally Port gate is opening, and a bus is either arriving or departing. AQS #998 experienced noise levels above threshold 2 times during the month. One out of the two alerts were caused by construction activity. AQS #997 had one exceedance on a Saturday when no work was being performed. Explanations for these exceedances are in the corrective action column above. Overall, the noise levels for an A-weighted average 8-hour workday were below the threshold for each day of the month of January 2024.

3) Community Vibration Monitoring Monthly Summary

Inches per second (in/sec)

Number of Workdays ina Month	Number of Vibration Monitoring Days in a Month	Number of Days with Vibration Levels above Action Levels by Month (in/sec)	Comments
21	31	3	During the month of January 2024, we experienced three instances 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
R14 – 1/15/24 @ 7:44 AM	7.325 (in/sec)	0.005 (in/sec)	No corrective action at this time. This is the monitor down in the active Criminal Justice Agency (CJA) intake area where officers / inmates bump into the monitor placed in the corridor.
R14 – 1/22/24 @ 5:50 PM	1.189 (in/sec)	0.004 (in/sec)	No corrective action at this time. This is the monitor down in the active Criminal Justice Agency (CJA) intake area where officers / inmates bump into the monitor placed in the corridor.
R15 – 1/22/24 @ 11:05 AM	4.152 (in/sec)	0.005 (in/sec)	This exceedance was due to a Vibrabalysis technician servicing the monitor. Vibranalysis confirmed this was the cause of the exceedance.
Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions: During the Month of January 2024, there were three vibration monitor exceedances. All three of these exceedances were confirmed to not be the result of any construction activity. Explanations for the alerts are shown above. 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

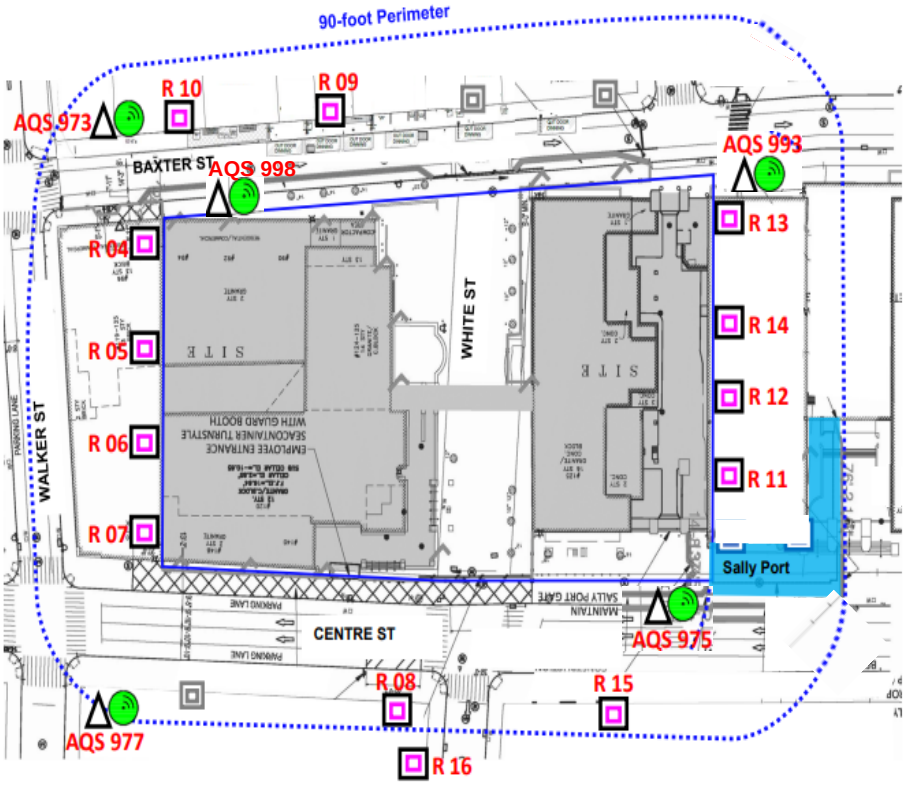
Glossary of Terms	
Terms	**Descriptions**
Warning Alerts	Warning limit line for vibration monitors is not an indication to stop work. This is to notify DB team to assess the operation an know that we are causing vibration, but not anything exceeding limits and to monitor this area more closely.
After Hours Alert	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
Units of Measures	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
Action Level	eployer 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.
Ambient Sound	The total amount of all noise present at a particular place and time in the environment at the point of
Leq	Equivalent continues sound pressure level. A measure of the average sound pressure level during a period of time,
Fine Particles (PM 2.5)	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



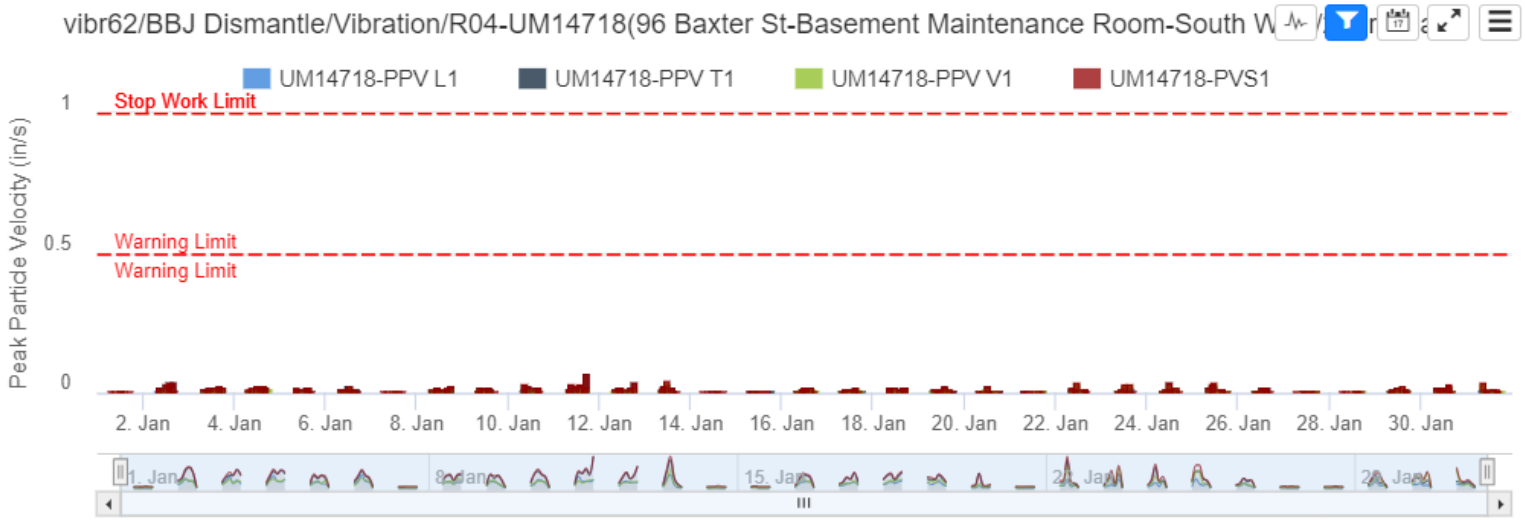
* Dismantle project vibration, air and noise monitoring devices are installed by Design-Build team in Phase 2, after sally port construction. A vibration monitoring station was installed in the DCTV Fire house at 87 Lafayette St.

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

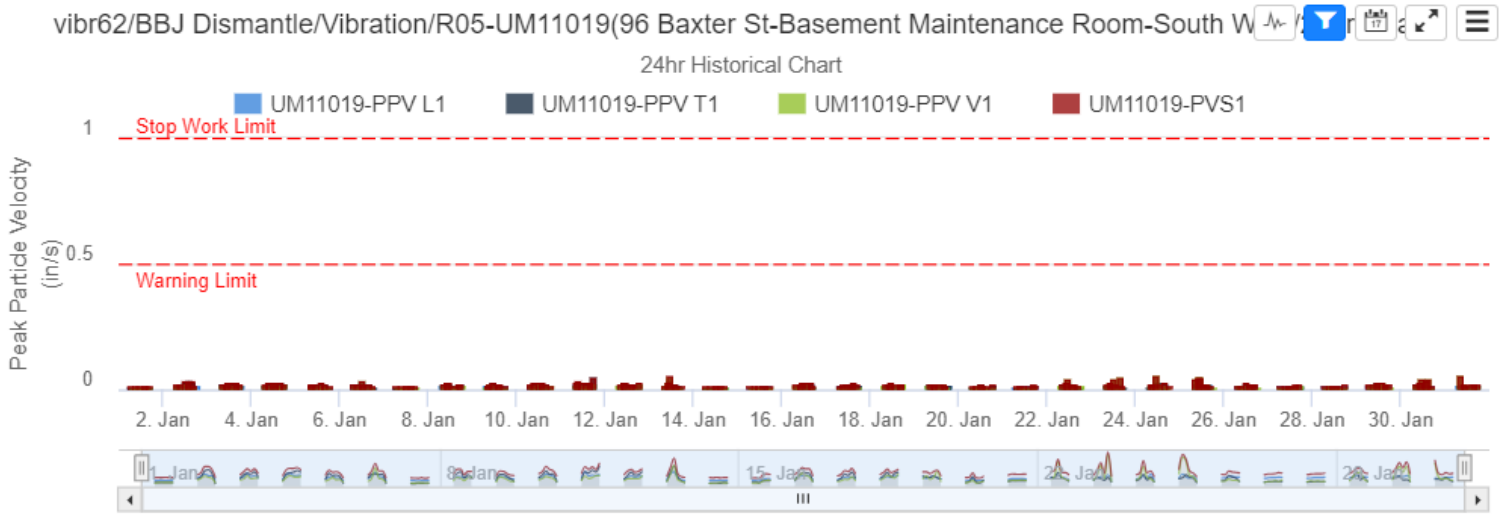
- Vibration Monitoring Dismantle
- Air Monitoring Station Dismantle
- Noise Monitoring Station Dismantle
- **Vibration Monitoring Sallyport construction (Installed)**
- Vibration Monitoring Not installed

1

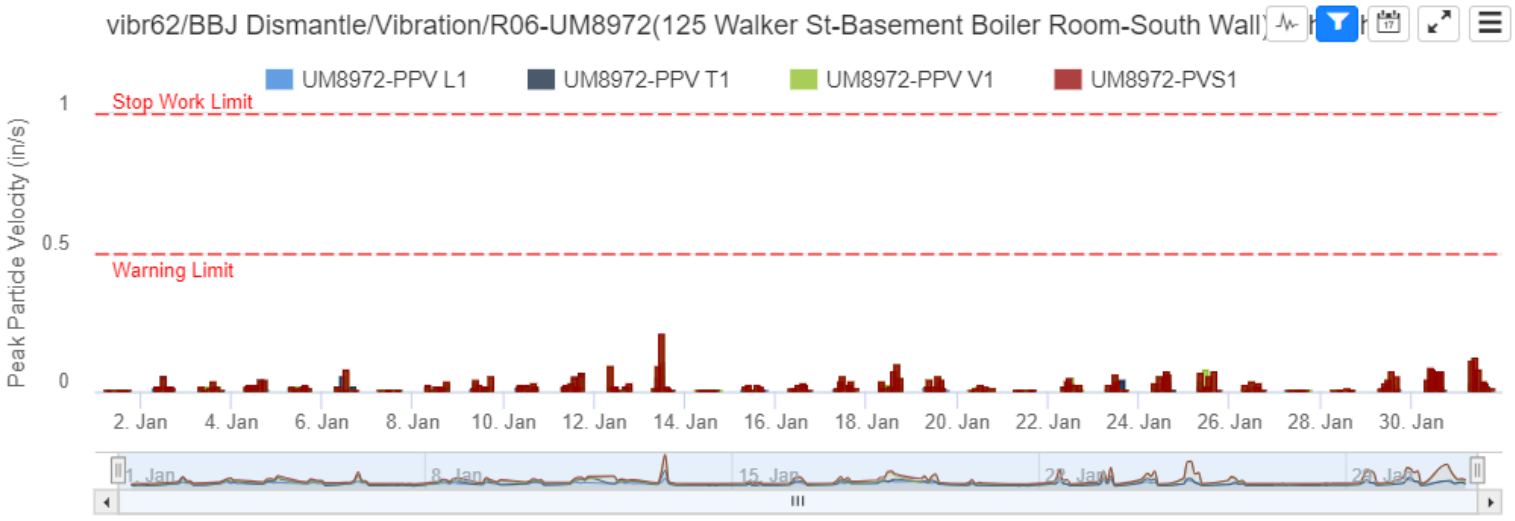
Vibration Monitor – (R04) January 24:



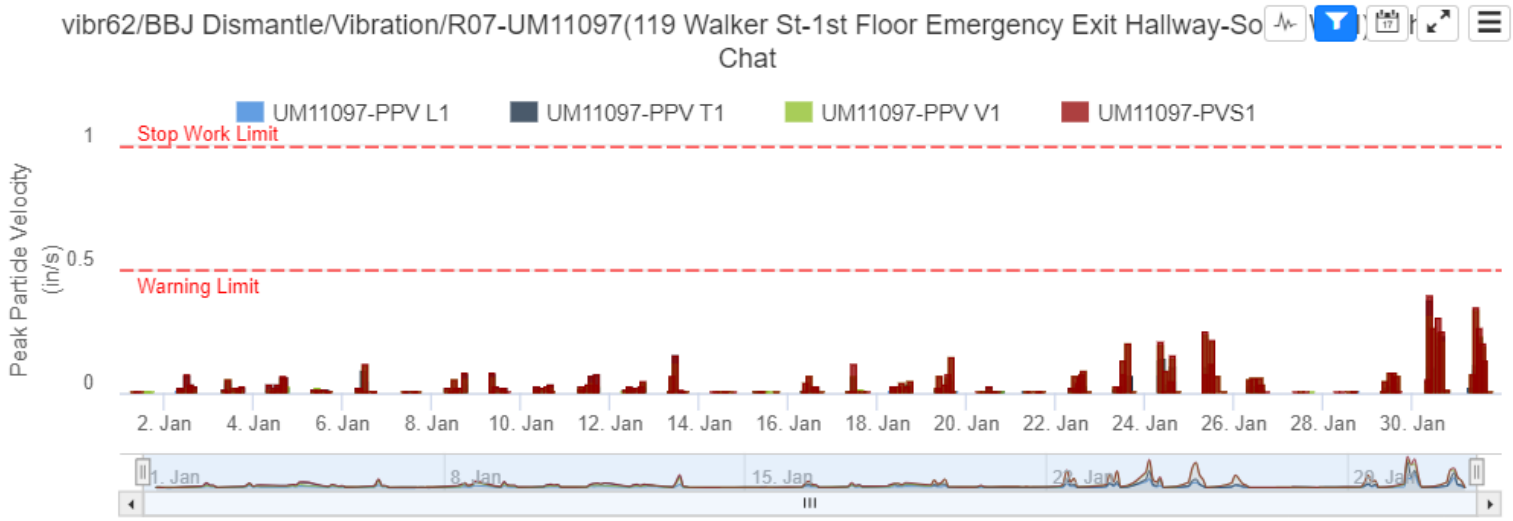
Vibration Monitor – (R05) January 24:



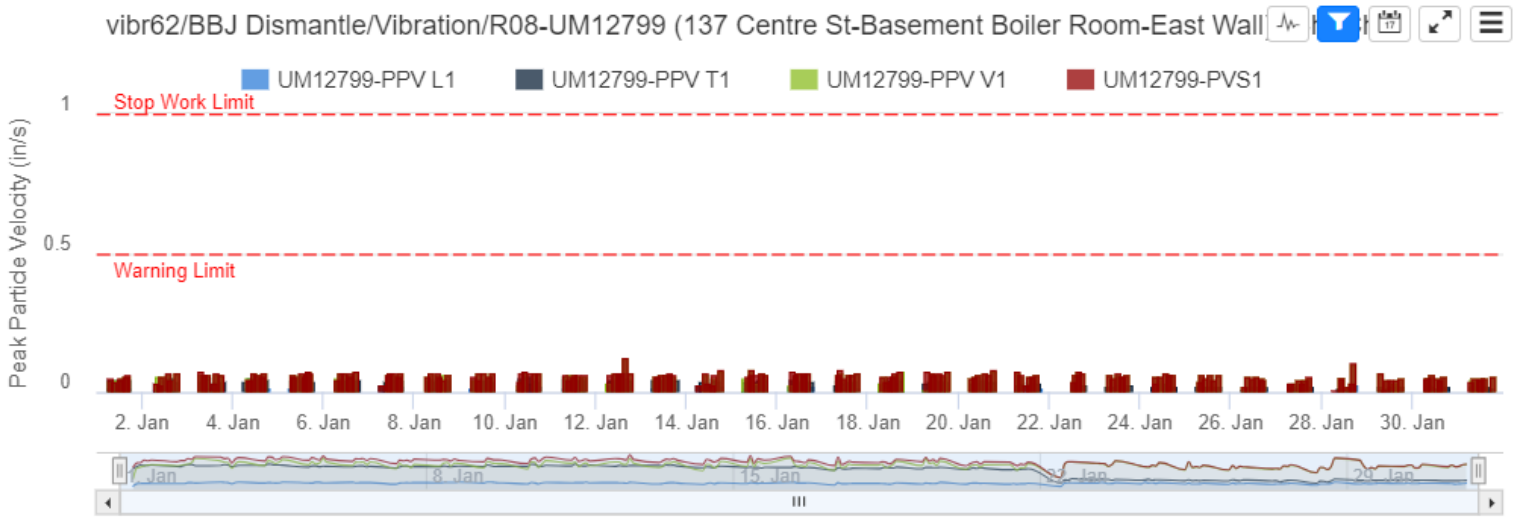
Vibration Monitor – (R06) January 24:



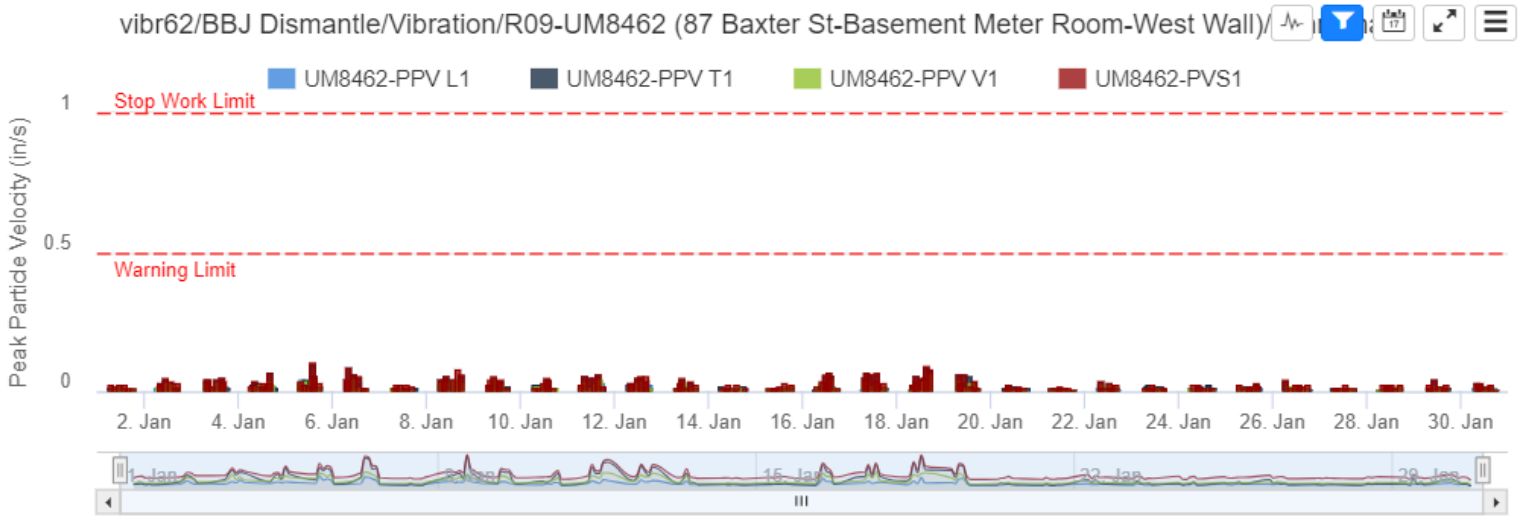
Vibration Monitor – (R07) January 24:



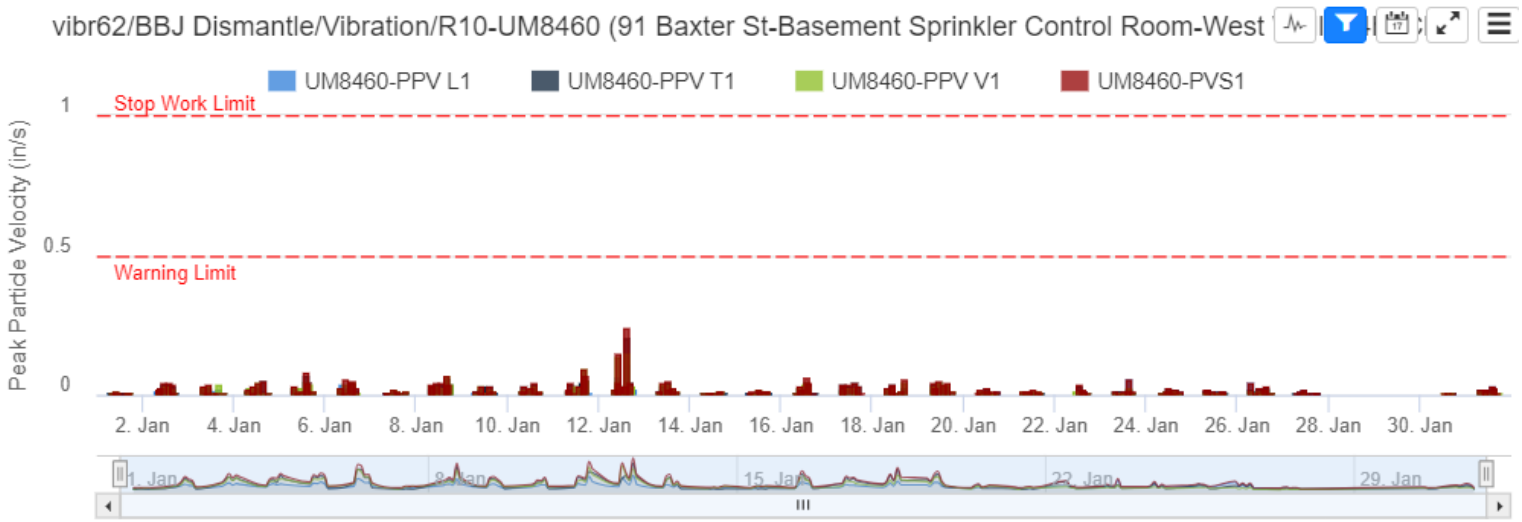
Vibration Monitor – (R08) January 24:



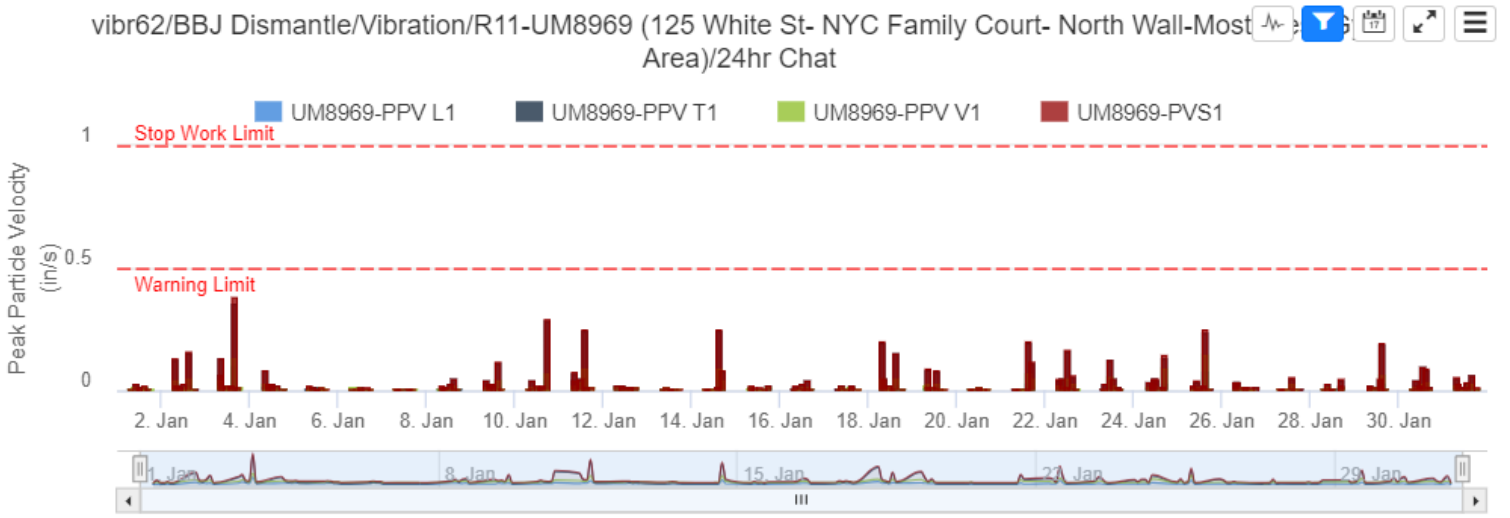
Vibration Monitor – (R09) January 24:



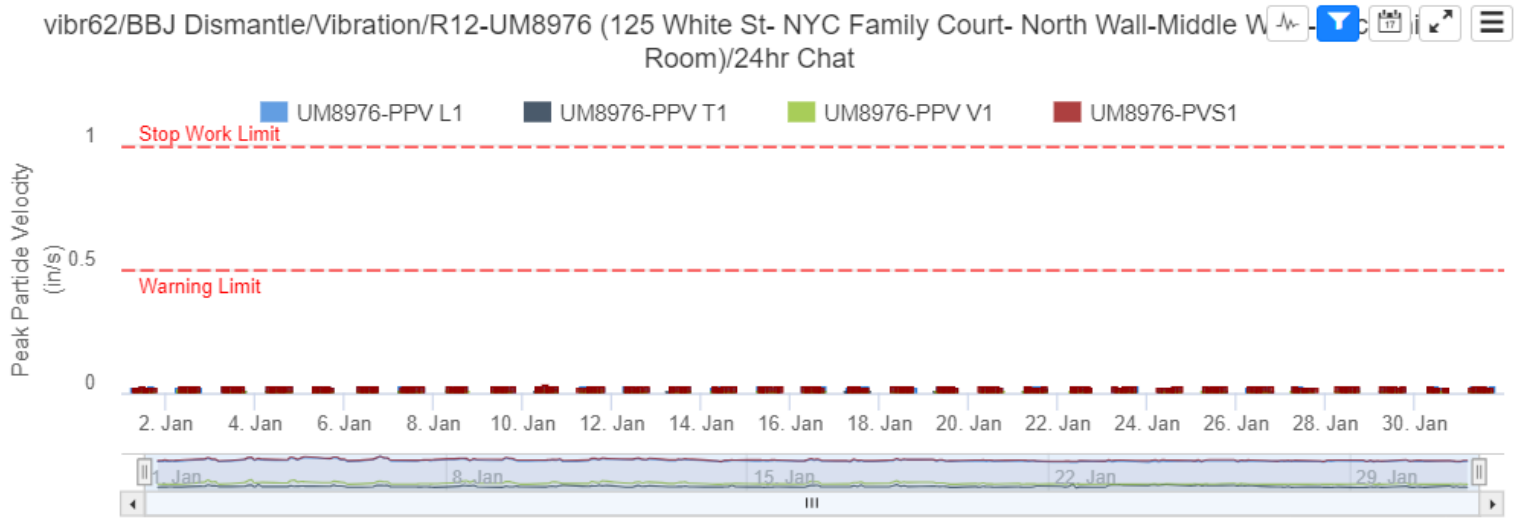
Vibration Monitor – (R10) January 24:



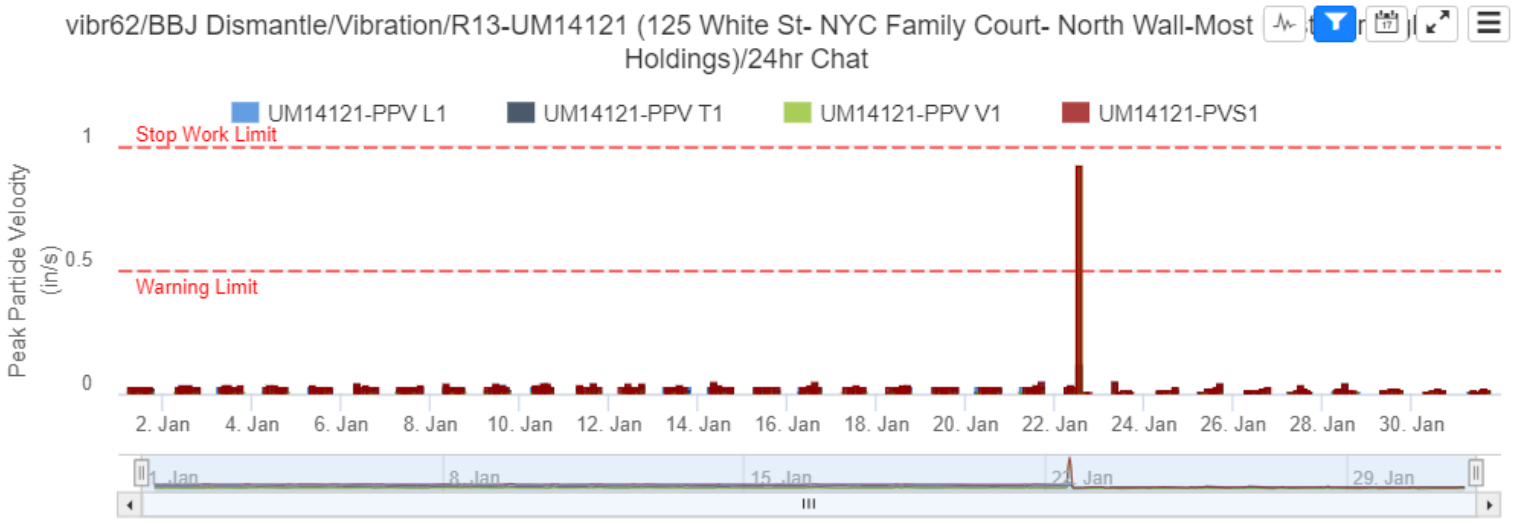
Vibration Monitor – (R11) January 24:



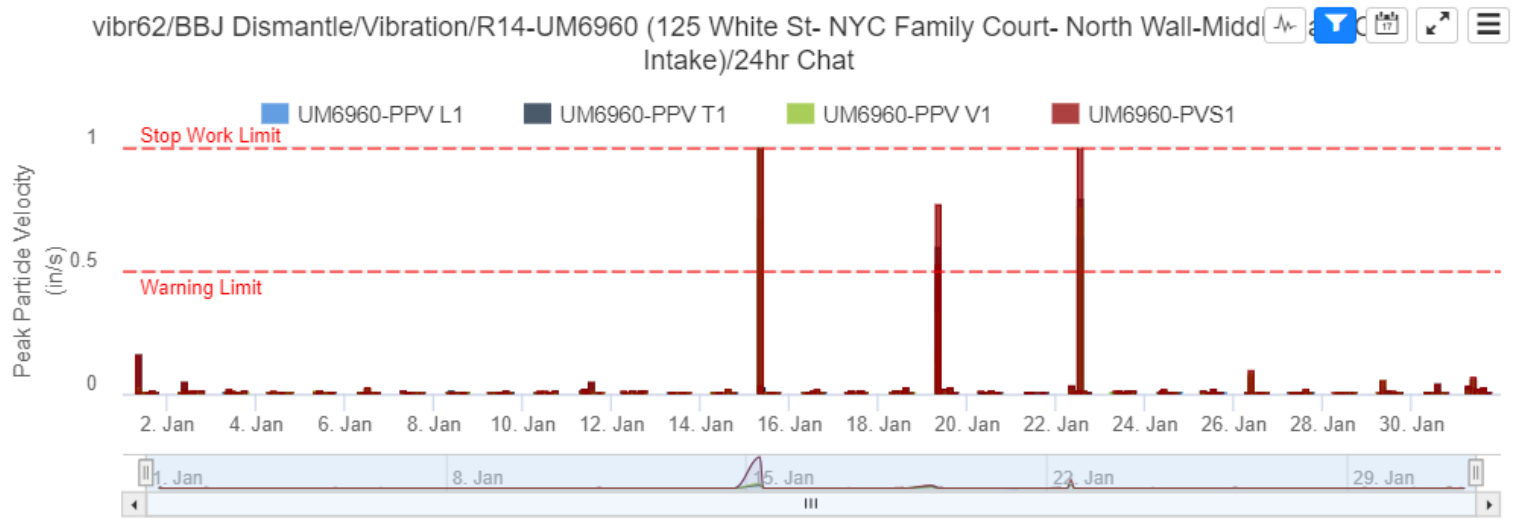
Vibration Monitor – (R12) January 24:



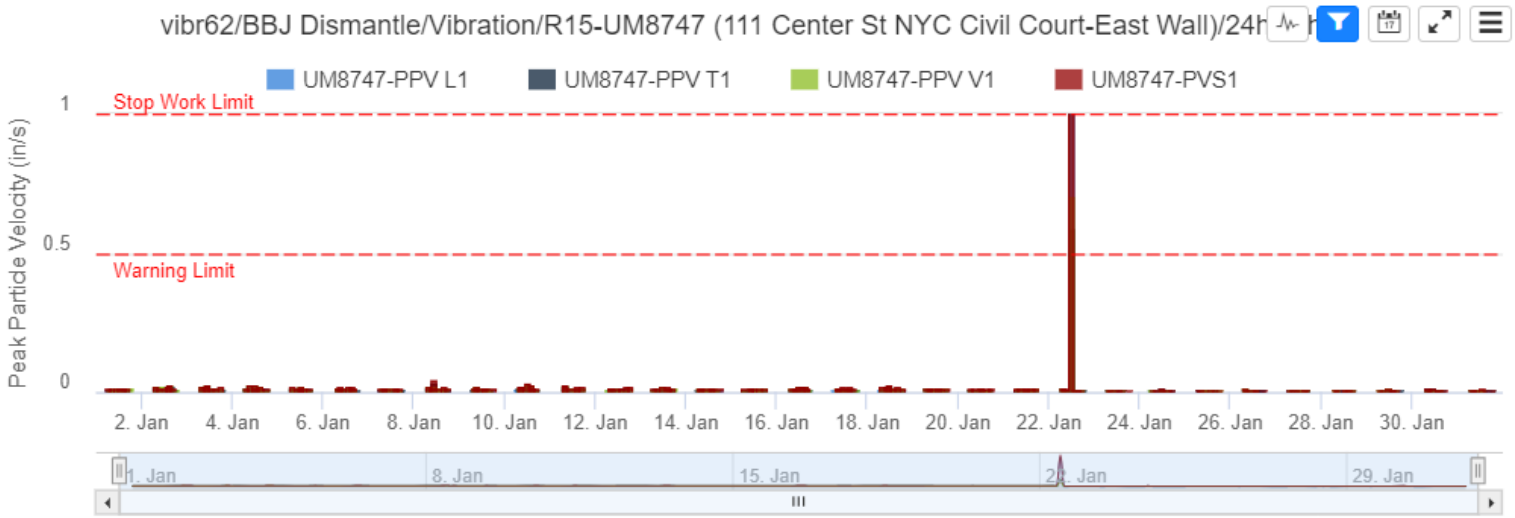
Vibration Monitor – (R13) January 24:



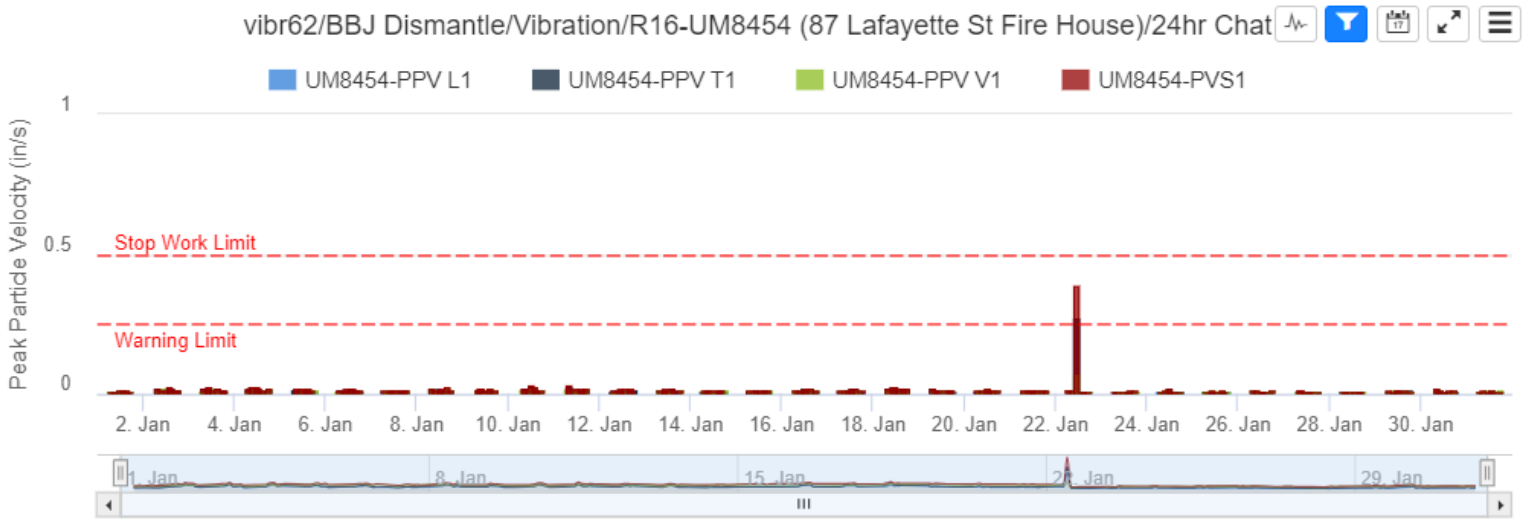
Vibration Monitor – (R14) January 24:



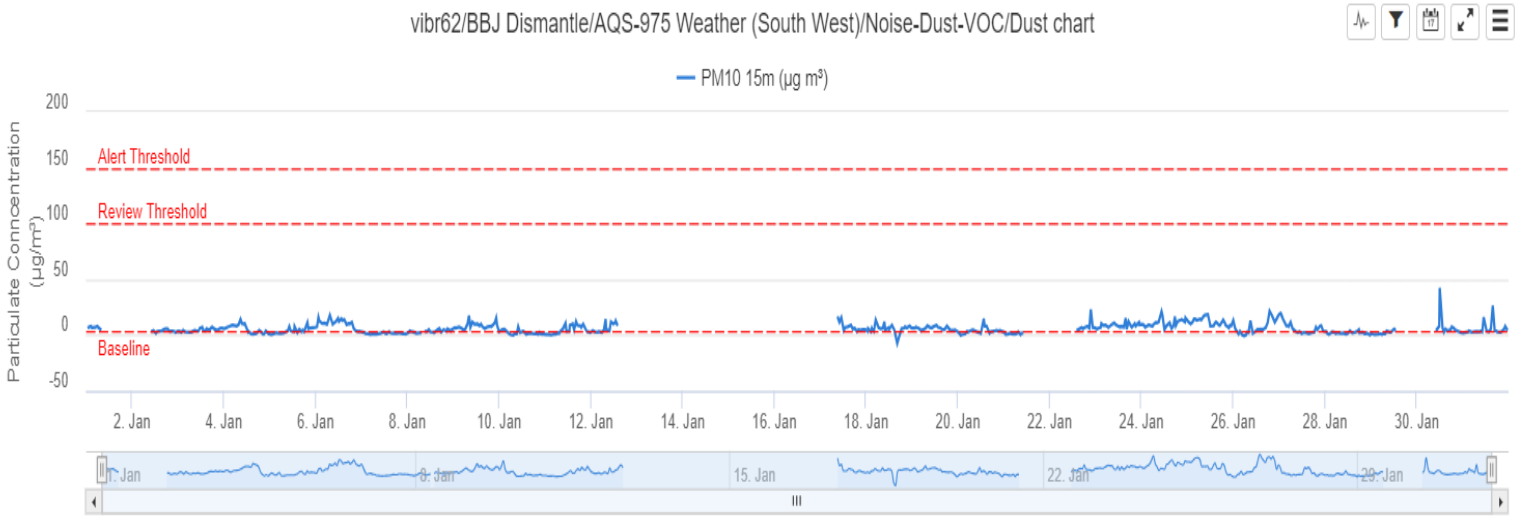
Vibration Monitor – (R15) January 24:



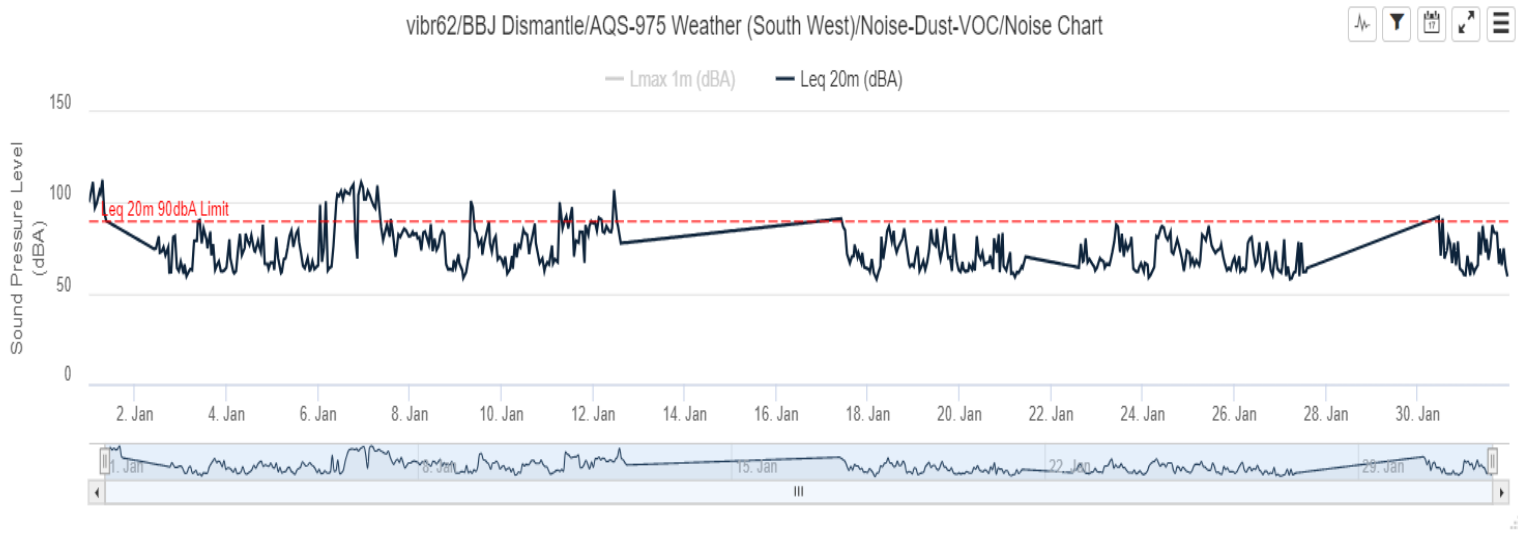
Vibration Monitor – (R16) January 24:



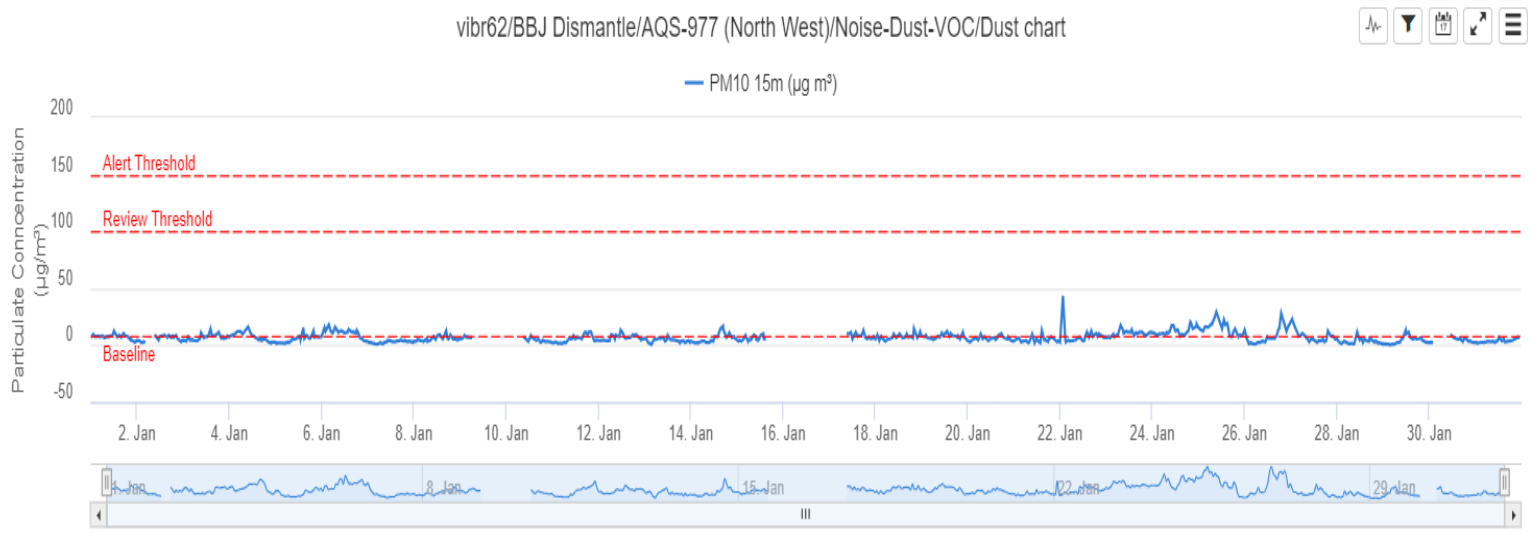
Air Quality Systems #975 – Dust Monitoring Station – January 24:



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



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



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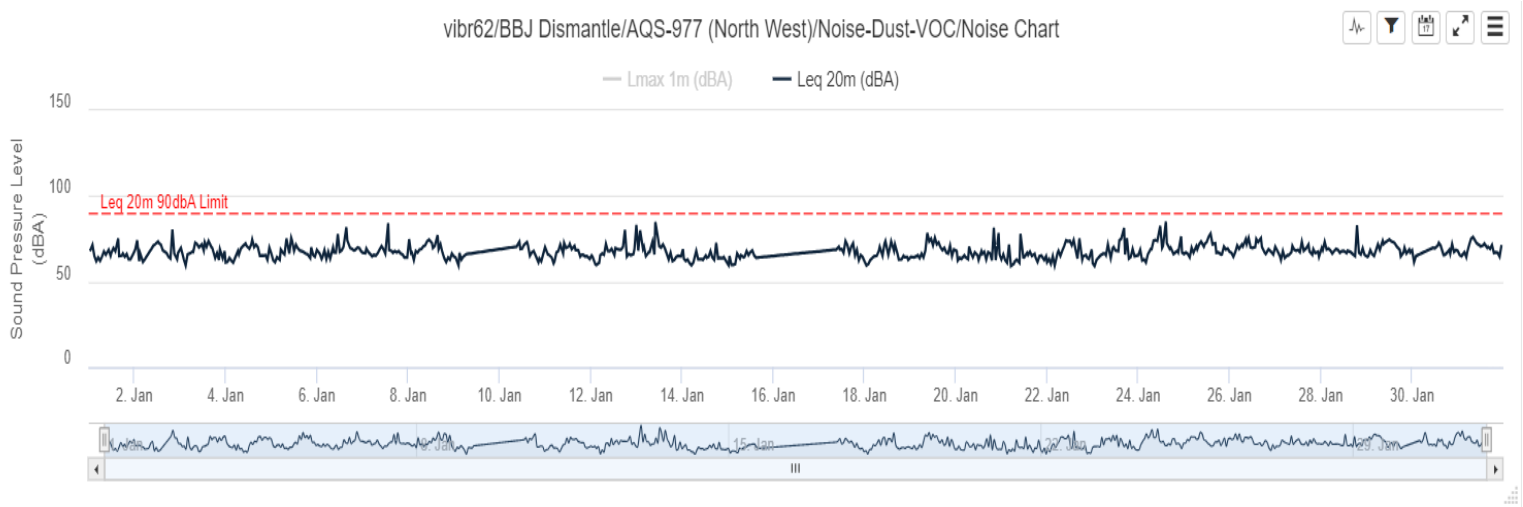
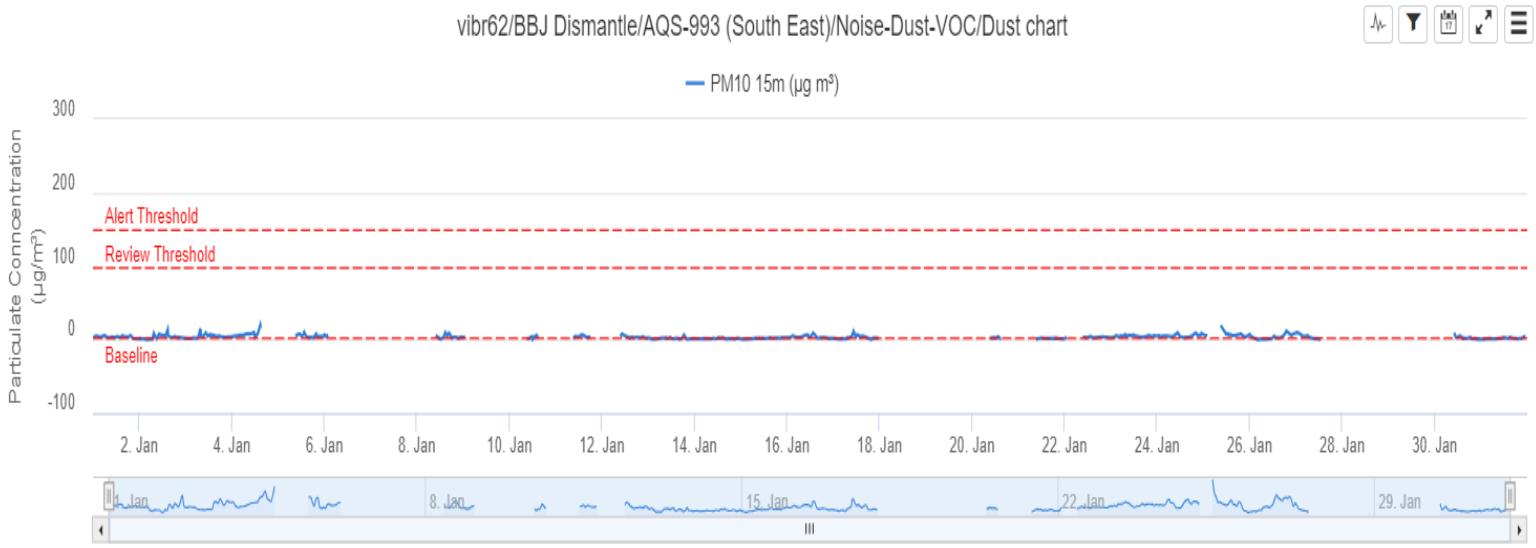


Air Quality Systems #993 – Dust Monitoring Station – January 24:



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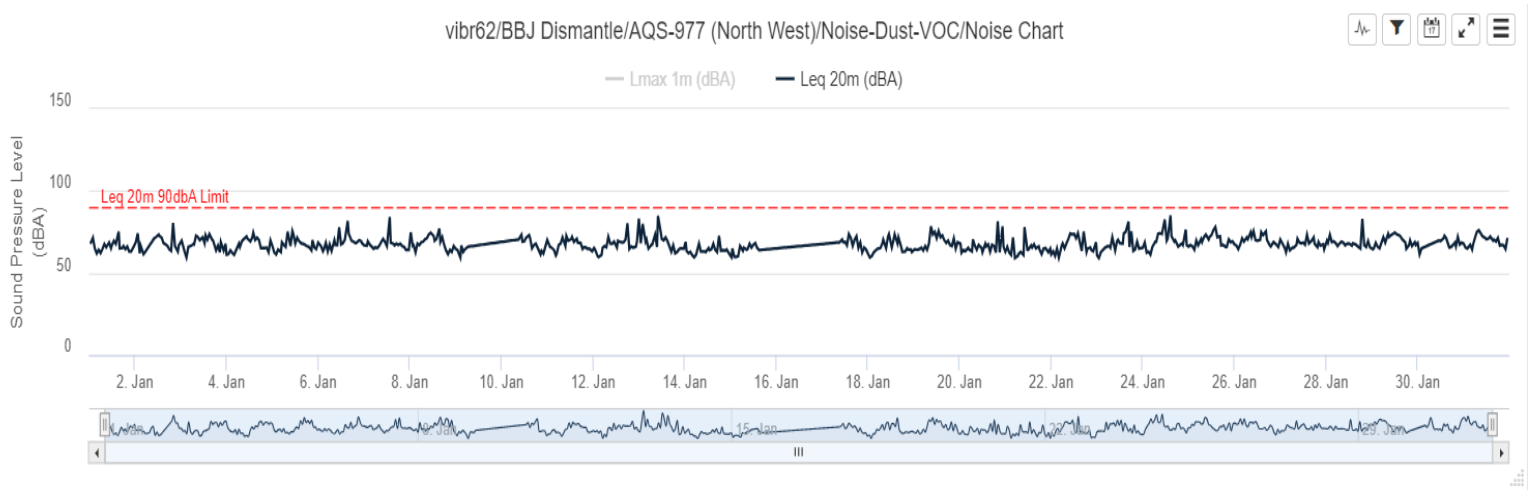
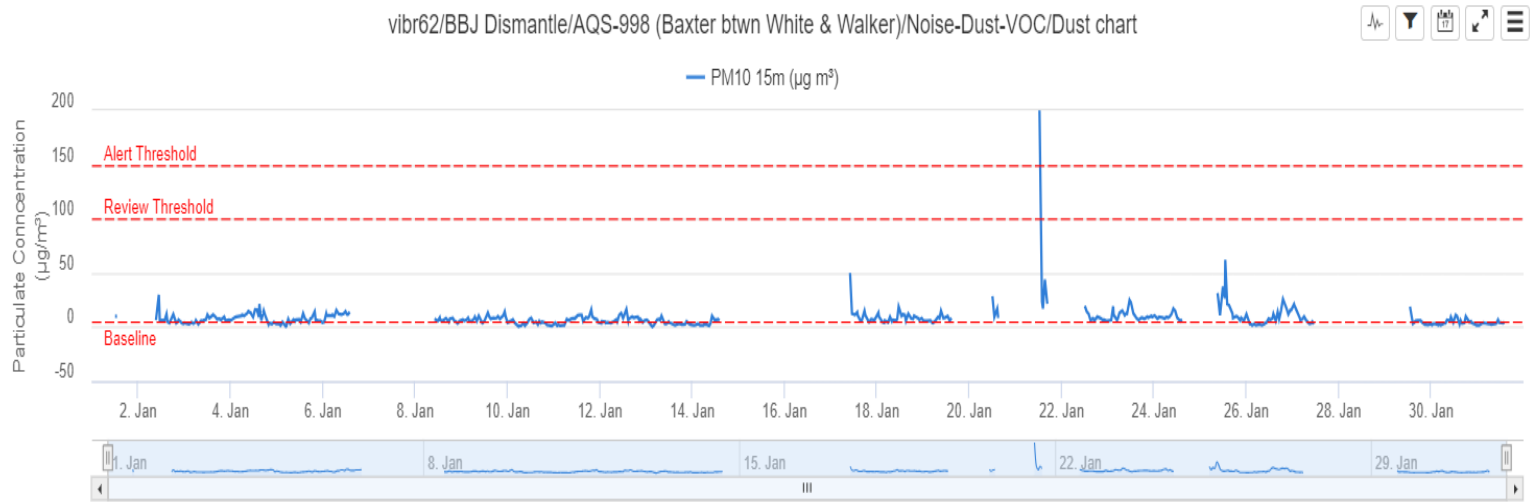


Air Quality Systems #998 – Dust Monitoring Station – January 24:



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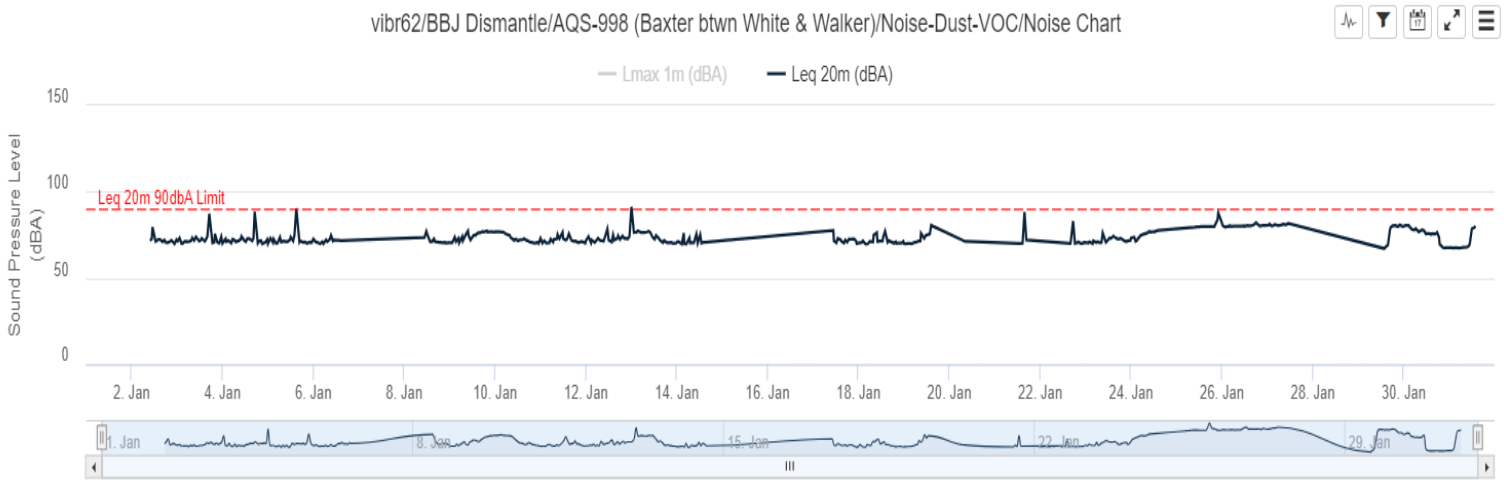

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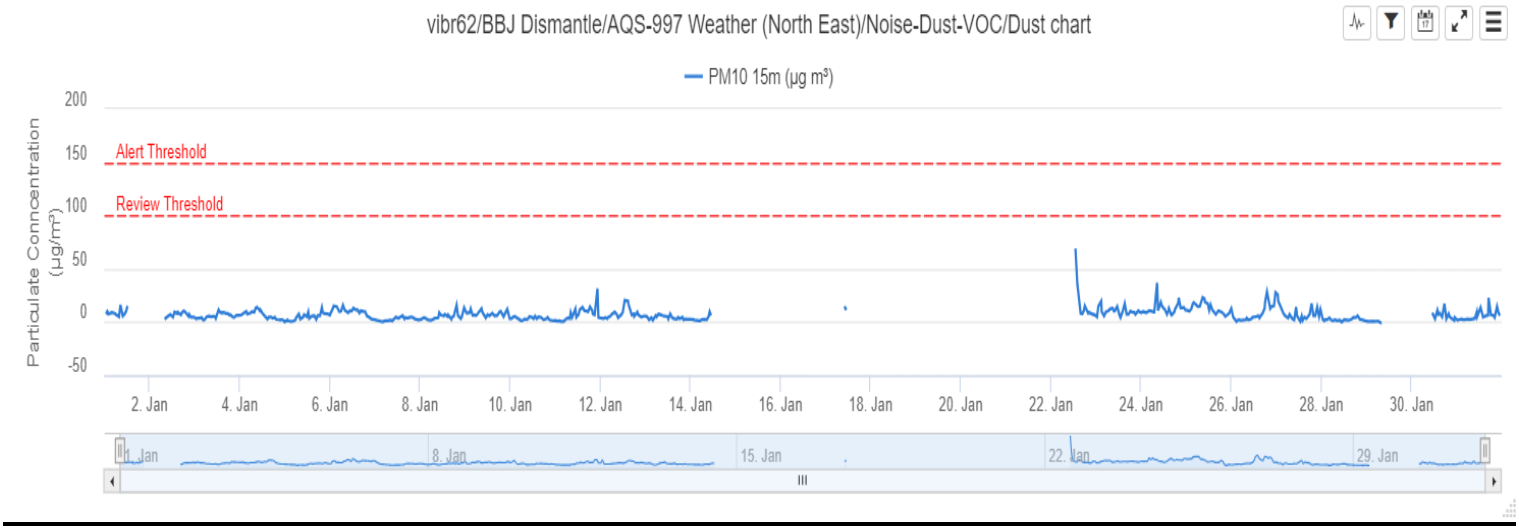

Air Quality Systems #997 – Noise Monitoring Station – January 24: