

**AIR, NOISE AND VIBRATION
MONTHLY MONITORING REPORT
Number 015 – October 2023**

Prepared By:
Gramercy
Group Inc.

DDC. Project ID:	BBJ M DSS	Period Start: 10/01/23 End 10/31/23
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/m³- 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 ³ 15 minute TWA)	Comments
22	31	0	There were zero days with dust concentration above action concentrations for the month of October. 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/m³ 15 minute TWA above background concentration
Stop Work Concentration = 150 ug/m³ 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
N/A	N/A	N/A	N/A

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Narrative Summary of Air Monitoring, Excursions and Corrective Actions:

In October 2023, 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 for each of the monitors. This is because the batteries for the AQS monitors run on sunlight. The batteries may die over the weekend when there is no sunlight or anyone on site to change them. With that being said, we swap out the batteries as fast as possible to ensure proper monitoring coverage of the community around the job site. 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
22	31	9	Noise monitoring for the month of October had 9 instances where we had readings greater than the threshold. Below you will see explanations for all of the alerts. Monitoring 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: 10/10/23 @ 10:30 AM	91.3 dBA	56.8 dBA	An investigation was performed on this monitor when we got the alert. It was observed that no work in this area was taking place and that this was due to traffic on Centre Street. No corrective action was feasible at this time.
AQS #975: 10/18/23 @ 12:00 PM	92.3 dBA	68.6 dBA	No corrective action was feasible at this time as the crew was on lunch break and no work was being performed.
AQS #975: 10/23/23 @ 11:30 PM	94.7 dBA	67.6 dBA	No corrective action was feasible as we went to investigate, and this was again caused by traffic on Centre Street when no work was being performed in this area.
AQS #975: 10/30/23 @ 10:00 AM	104.322 dBA	76 dBA	No corrective action was feasible at this time

			as this monitor is not near where we are performing work. We still went out to investigate the issue and again this is caused by traffic on Centre Street.
AQS #998: 10/10/23 @ 10:21 AM	92.2 dBA	70.8 dBA	Investigation was performed around this monitor at the time of the alert. It was hard to pinpoint the exact cause as we were sorting material in this area. After speaking with the operator to try and be gentler and the traffic dying down, the noise level returned to below the threshold.
AQS #998: 10/21/23 @ 3:41 AM	96.3 dBA	77.7 dBA	No corrective action was feasible at this time as this alert happened at 3:41 AM while no work was being performed.
AQS #998: 10/23/23 @ 10:20 AM	108.8 dBA	71.9 dBA	We immediately investigated this alert, and it was due to the technician from Vibranalysis servicing the monitor and swapping batteries. After he was done performing work on the monitor the noise level went back to below threshold.
AQS #998: 10/28/23 @ 9:21 AM	95.1 dBA	81.4 dBA	Upon investigation of this alert, it was noted that the crew was just starting back up after coffee break. During the time of the 20-minute reading the crew was not performing work in this area or any area.
AQS #998: 10/31/23 @ 12:21 PM	93.7 dBA	73.9 dBA	No corrective action was feasible at this time as the crew was on lunch break and no work was being performed. This exceedance was most likely caused by traffic or emergency service vehicle sirens.

Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:

During the month of October, we experienced noise levels greater than the alert threshold AQS monitor #998 and AQS#975. AQS #975 is located directly on Centre Street in an area where we are not performing any operations that create noise of this level. With that being said, we still went out to investigate what is causing these alerts. It was traffic setting it off. We even had Vibranalysis come out to re-calibrate the monitor to ensure it wasn't giving false readings. AQS #998 also experienced noise level exceedances at times during the month of October. Above you will see the explanations of the exceedances. Most were either caused by traffic and sirens or during hours when we are not performing work. Every alert we get is investigated immediately and will continue to do so.

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
22	31	6	All Vibration alerts were from R14 located in Criminal Justice Agency (CJA) intake area. This is the monitor that gets knocked / bumped into by either officer or inmates during their processing procedures. We took every alert seriously and made sure it was not caused by our operations. We are looking into finding a new place to mount this monitor to avoid having this issue of false readings.

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: 10/01/23 @ 10:19 AM	0.994 (in/sec)	0.023 (in/sec)	Unrelated to construction activities. No corrective action at this time.
R14: 10/02/23 @ 8:23 AM	1.26 (in/sec)	0.003 (in/sec)	Unrelated to construction activities. No corrective action at this time.
R14: 10/10/23 @ 11:49 AM	1.726 (in/sec)	0.021 (in/sec)	Unrelated to construction activities. No corrective action at this time.
R14: 10/19/23 @ 1:49 PM	1.37 (in/sec)	0.022 (in/sec)	Unrelated to construction activities. No corrective action at this time.
R14: 10/23/23 @ 9:46 AM	1.75 (in/sec)	0.004 (in/sec)	Unrelated to construction activities. No corrective action at this time.
R01: 10/18/23 @ 9:12 AM	7.656 (in/sec)	0.005 (in/sec)	Unrelated to construction activities. Vibranalysis technician swapped batteries and kicked the monitor while doing so. No corrective action at this time.
Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions: During the Month of October 2023, there were 6 vibration monitor exceedances. When we got these alerts, they were investigated immediately. As stated in previous reports, Vibration Monitor R14 located in the CJA Intake area that goes off multiple times every month due to all the foot traffic in this space and people physically hitting into the monitor. As stated above, R01 had one instance when the technician from Vibranalysis was swapping the battery. He explicitly told me he accidentally kicked the monitor while doing so. We still investigate this every time it happens, and we continue to remind the personnel in this area to be mindful of the monitor. None of the exceedances from R14 are related to construction activity. Below you will see a few days with gaps in the data for vibration monitors R01, R02, R03. This happens when batteries die, or the unit loses connection. When this happens, we have Vibranalysis act as quickly as possible to get these back up and running. Even though there is missing data for those couple of days, the monitors are placed in areas that even when they are down, the adjacent monitor covers that area as a back up to ensure we are within our limits.			

ATTACHMENTS:

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

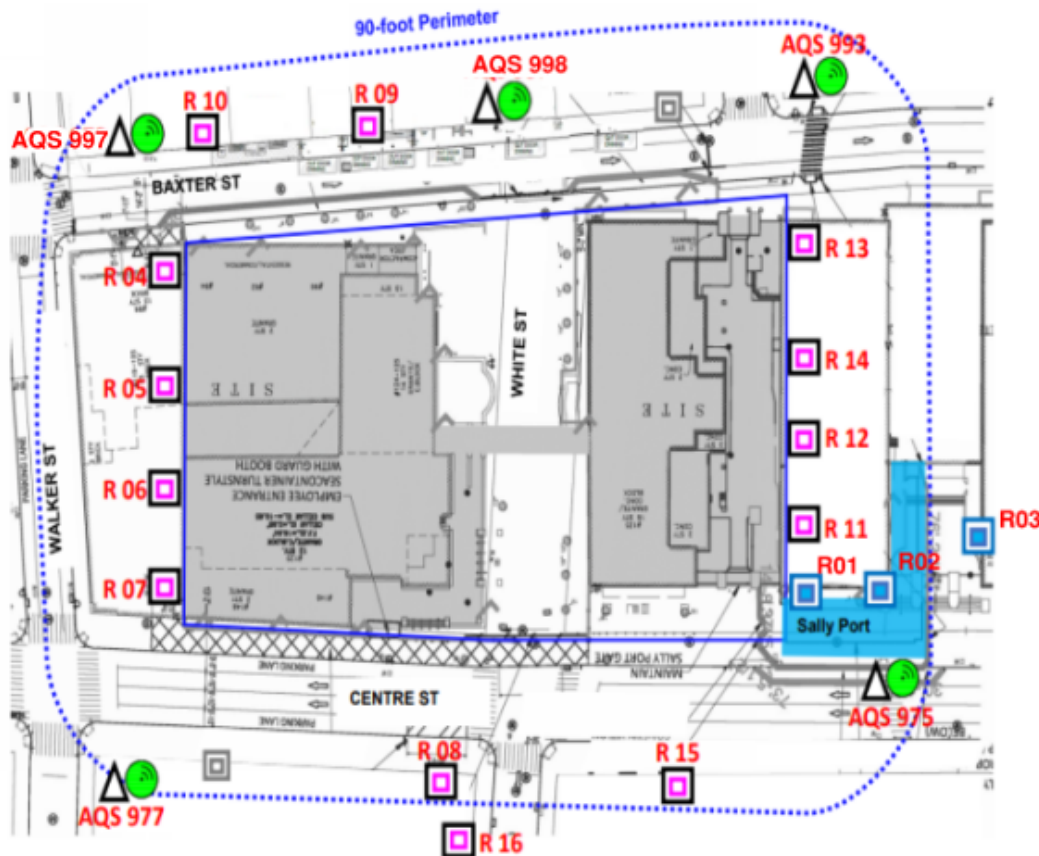
Glossary of Terms	
Terms	Descriptions
<i>Warning Alerts</i>	Warning limit line for vibration monitors is not an indication to stop work. This is to notify DB team to assess the operation and know that we are causing vibration, but not anything exceeding limits and to monitor this area more closely.
<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 R01 – R16

Air Quality System (AQS) # 933, 997, 975, 977, & 998.

Environmental Monitoring Manhattan

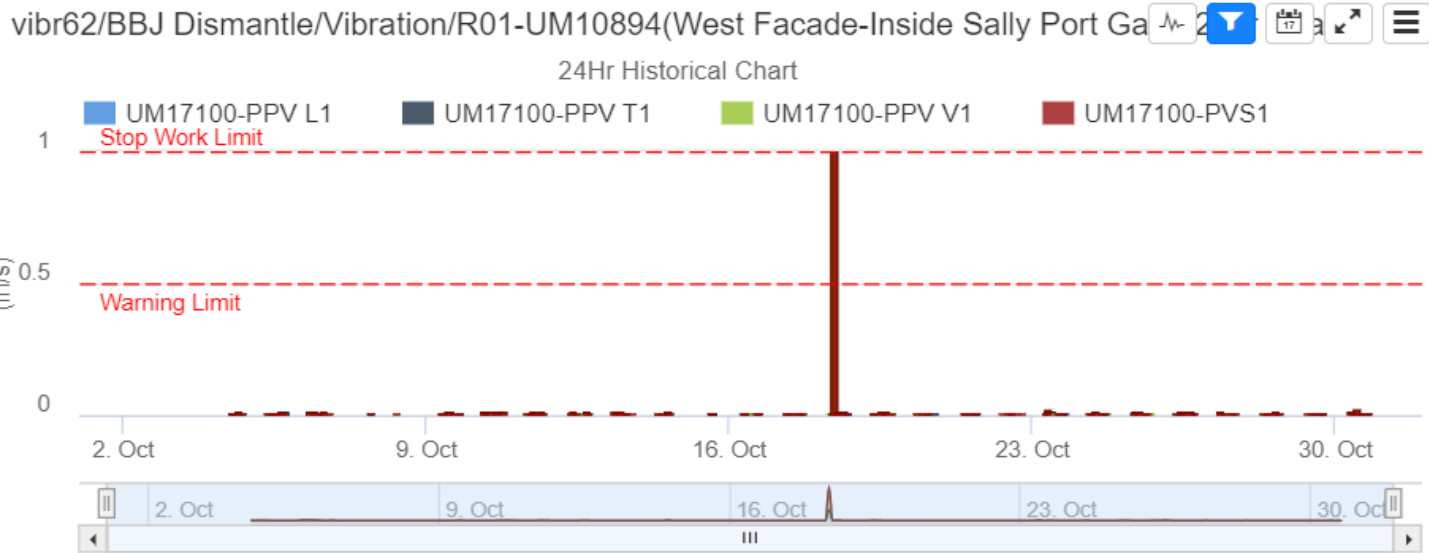


* Dismantle project vibration, air and noise monitoring devices are installed by Design-Build team in Phase 2, after sally port construction. A vibration monitoring station was installed in the DCTV Fire house at 87 Lafayette St.

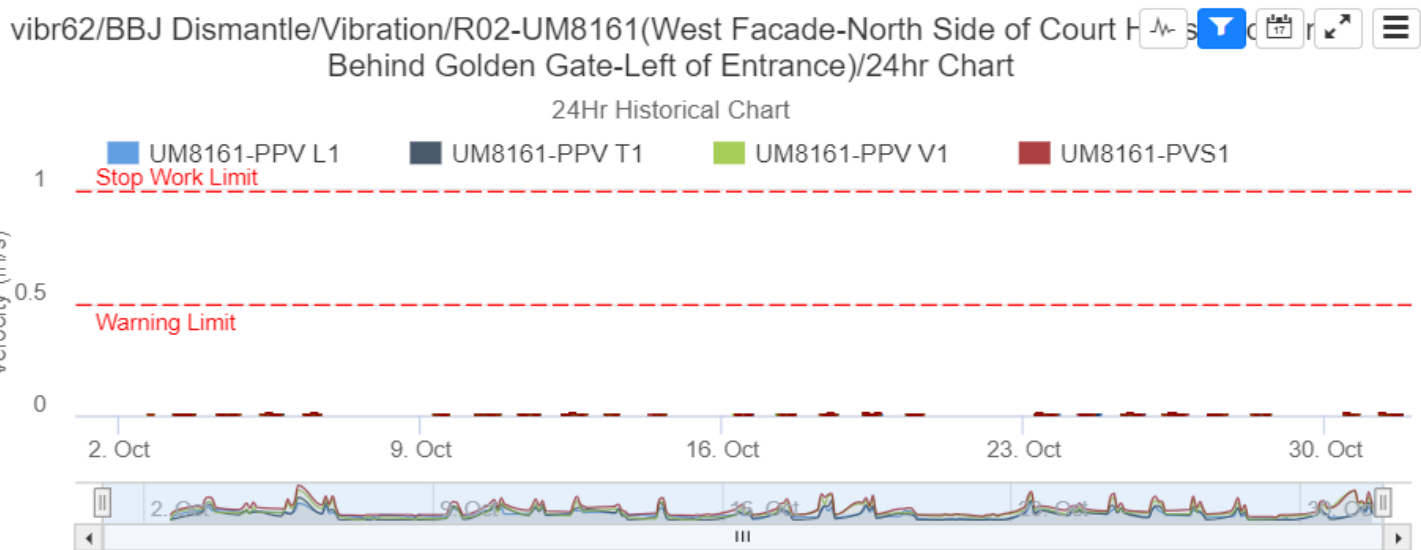
* The location of monitoring stations presented is referential. Air/Noise Monitoring station located in Sally Port area will be relocated in Phase 2.

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

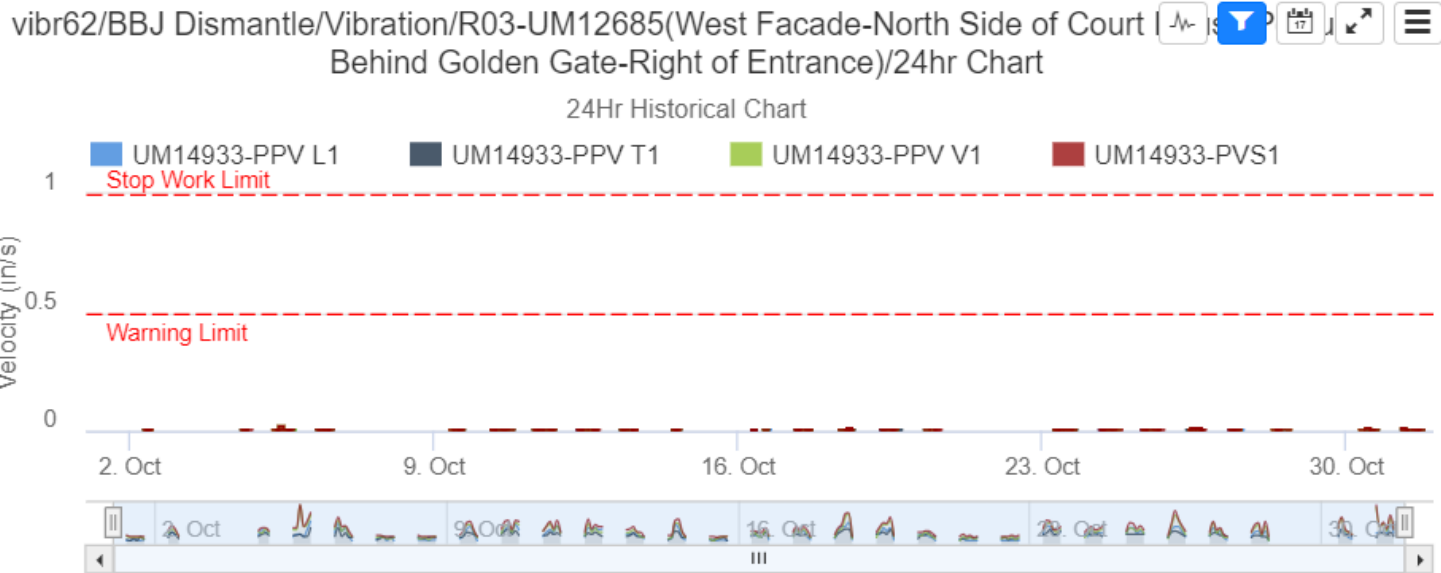
Vibration Monitor – (R01) October 23:



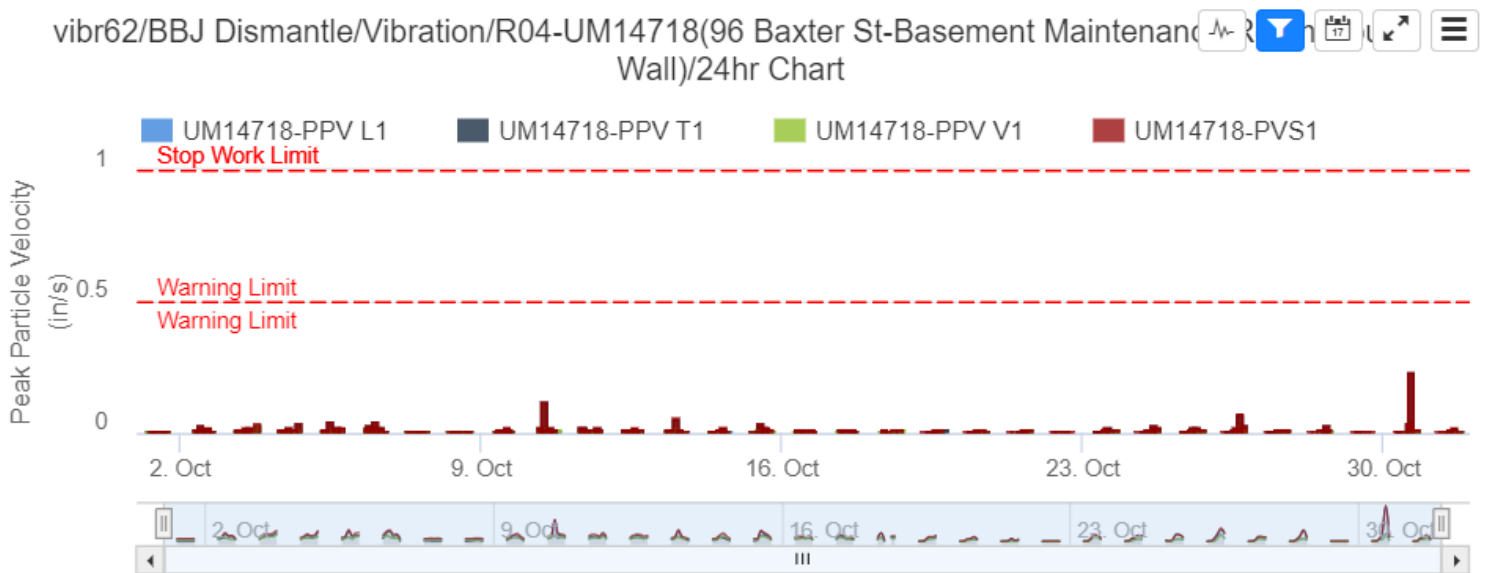
Vibration Monitor – (R02) October 23:



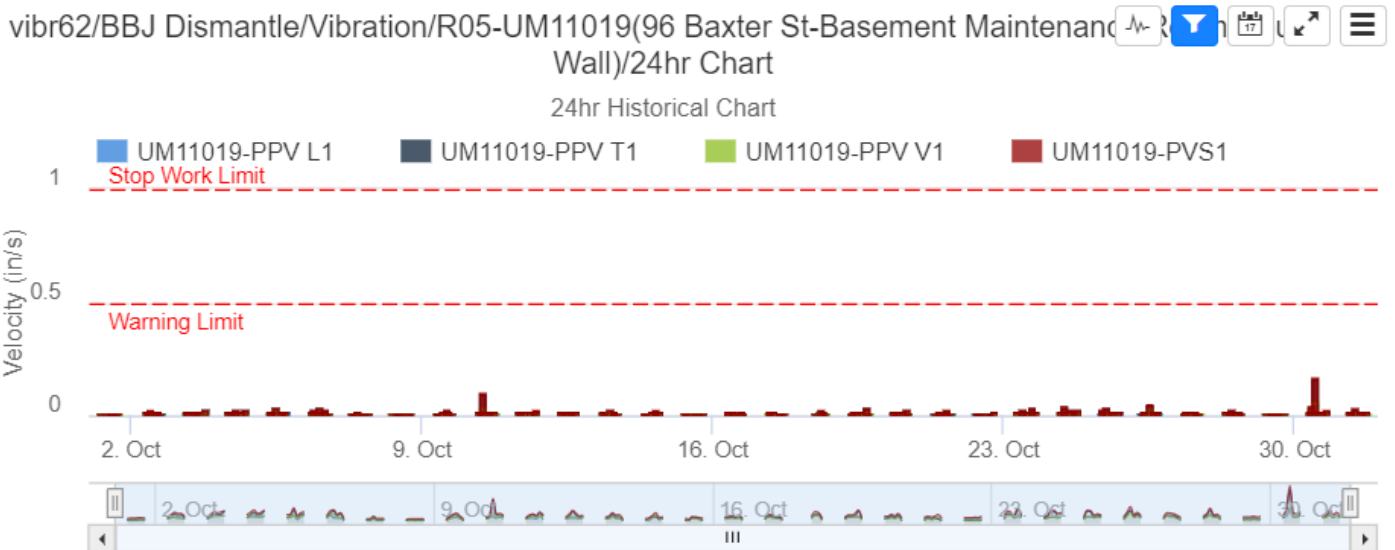
Vibration Monitor – (R03) October 23:



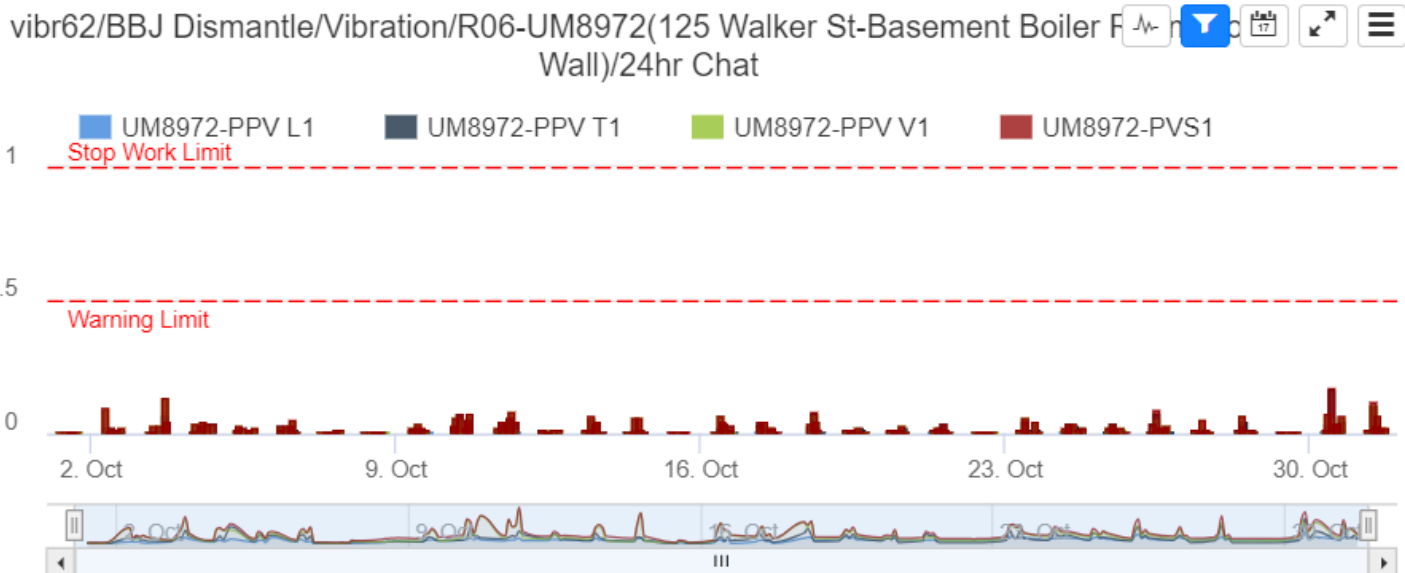
Vibration Monitor – (R04) October 23:



Vibration Monitor – (R05) October 23:

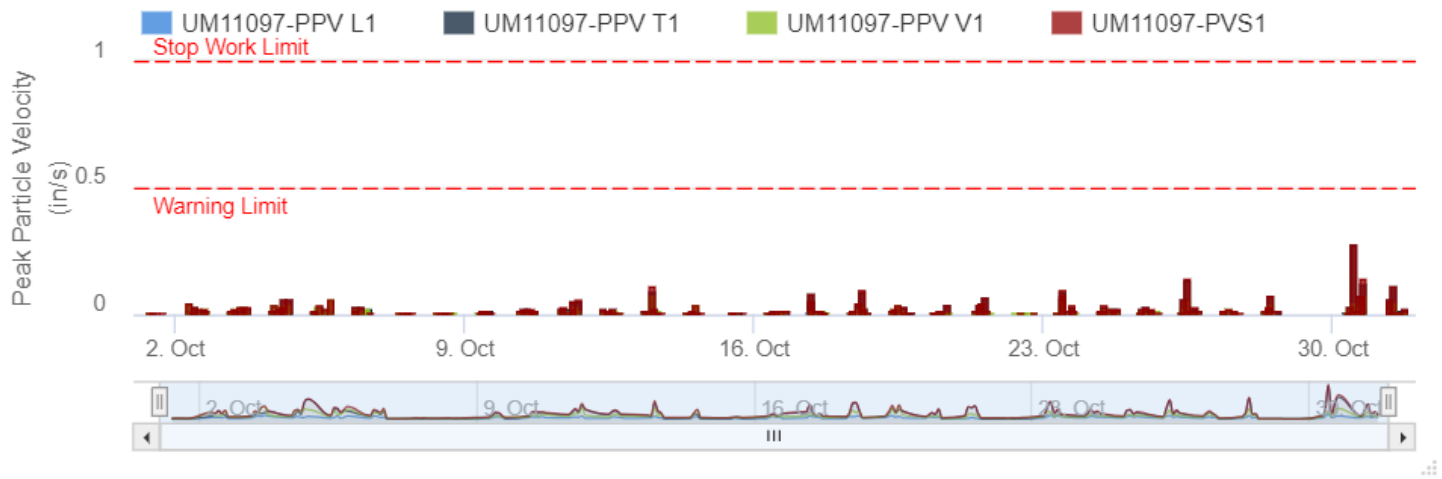


Vibration Monitor – (R06) October 23:



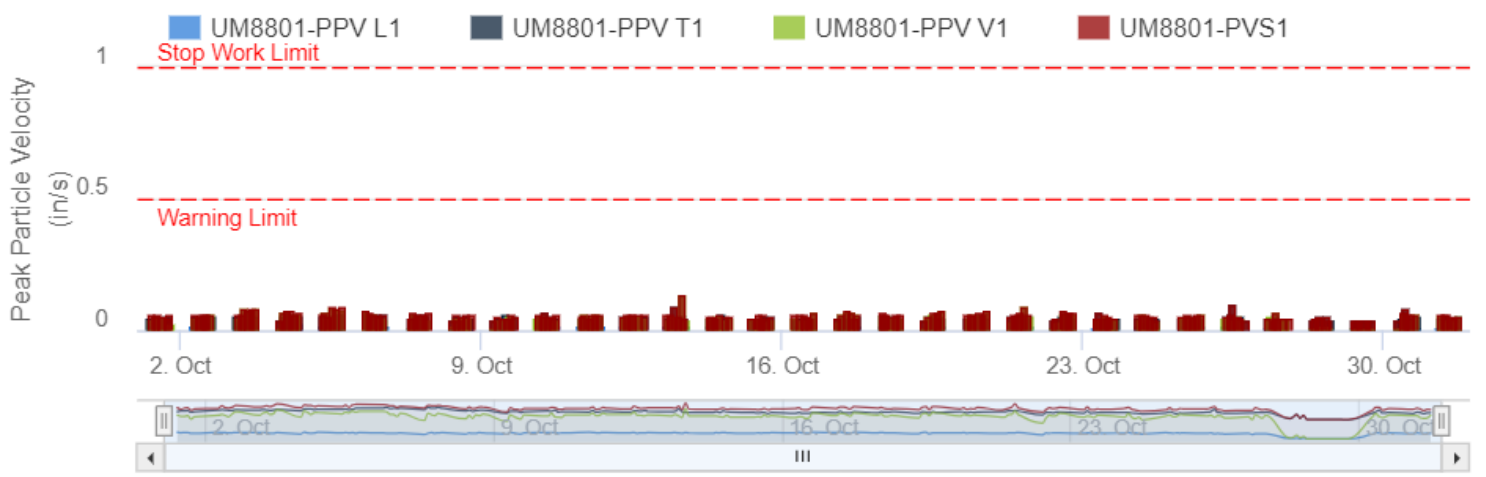
Vibration Monitor – (R07) October 23:

vibr62/BBJ Dismantle/Vibration/R07-UM11097(119 Walker St-1st Floor Emergency
South Wall)/24hr Chat

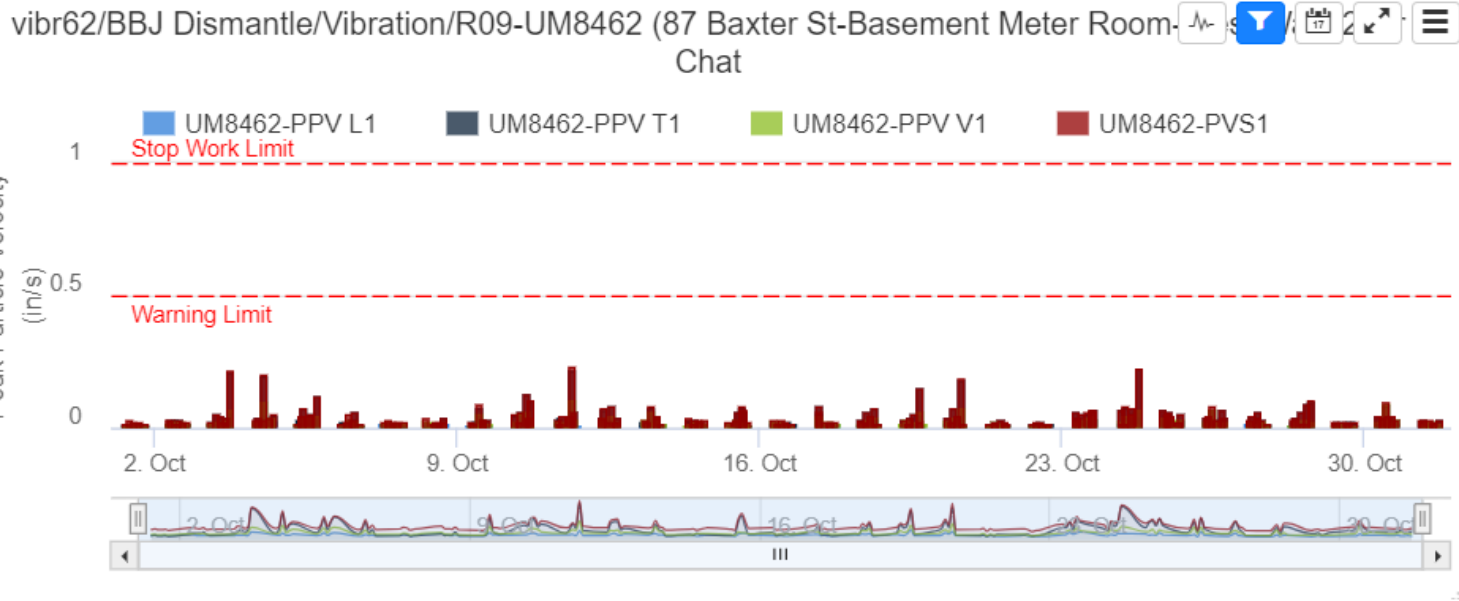


Vibration Monitor – (R08) October 23:

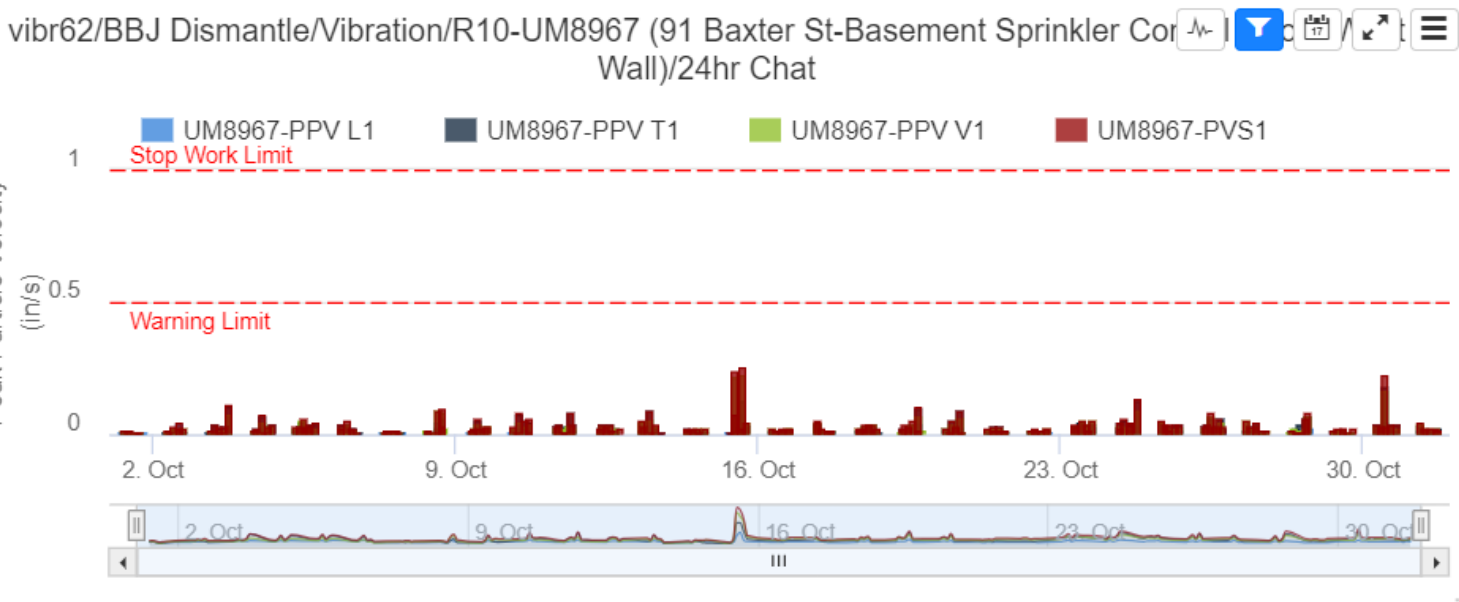
vibr62/BBJ Dismantle/Vibration/R08-UM8801 (137 Centre St-Basement Boiler
Wall)/24hr Chat



Vibration Monitor – (R09) October 23:

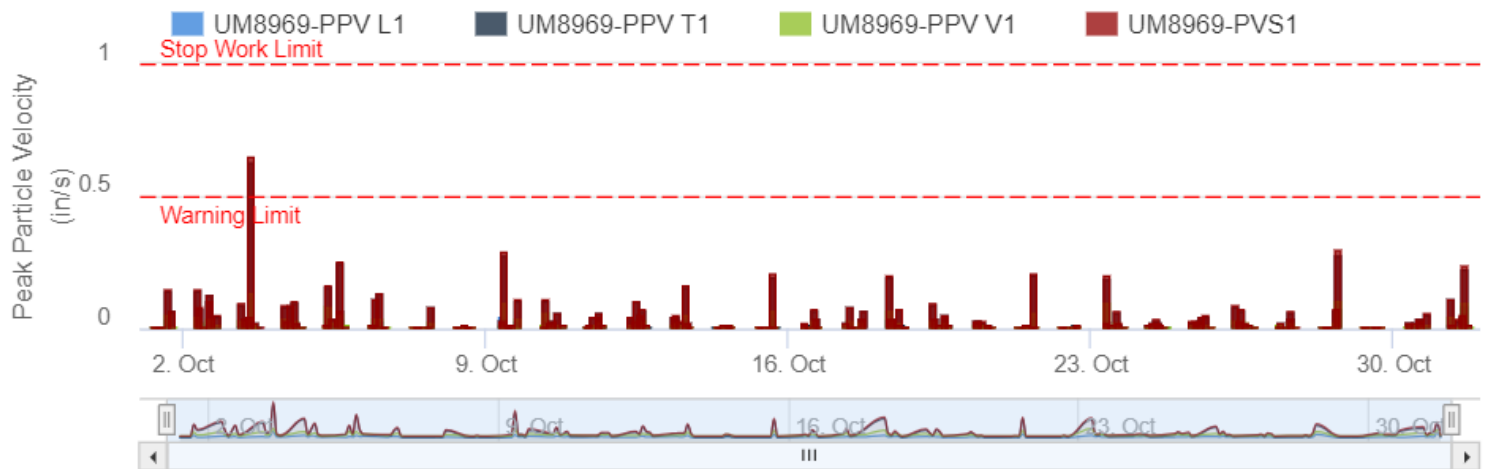


Vibration Monitor – (R10) October 23:



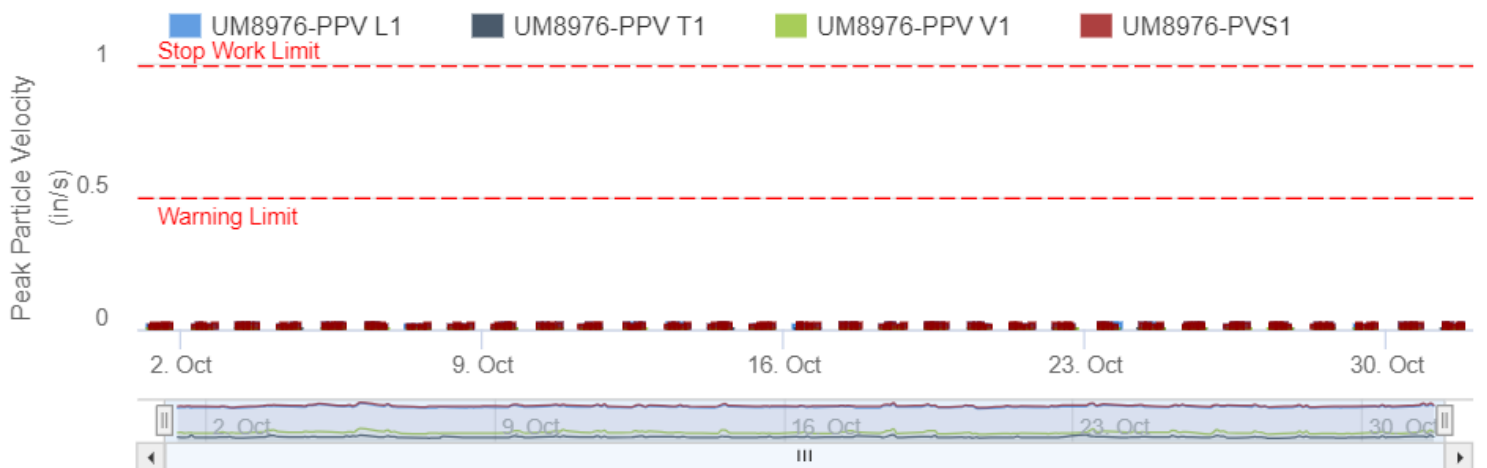
Vibration Monitor – (R11) October 23:

vibr62/BBJ Dismantle/Vibration/R11-UM8969 (125 White St- NYC Family Court- N
West-Gym Area)/24hr Chat



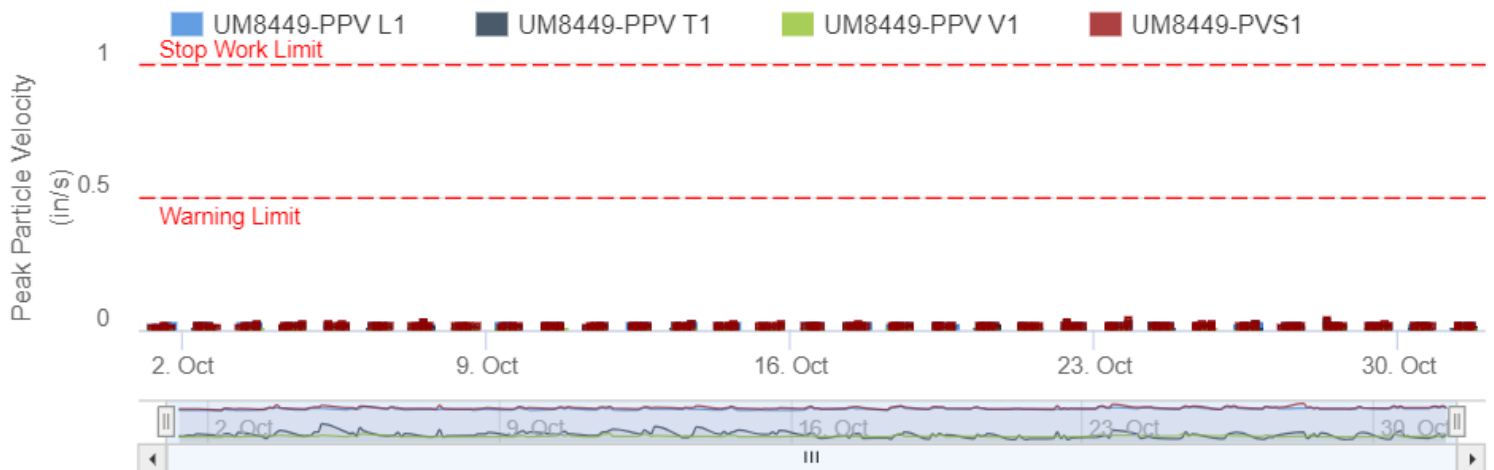
Vibration Monitor – (R12) October 23:

vibr62/BBJ Dismantle/Vibration/R12-UM8976 (125 White St- NYC Family Court- N
West-Mechanical Room)/24hr Chat



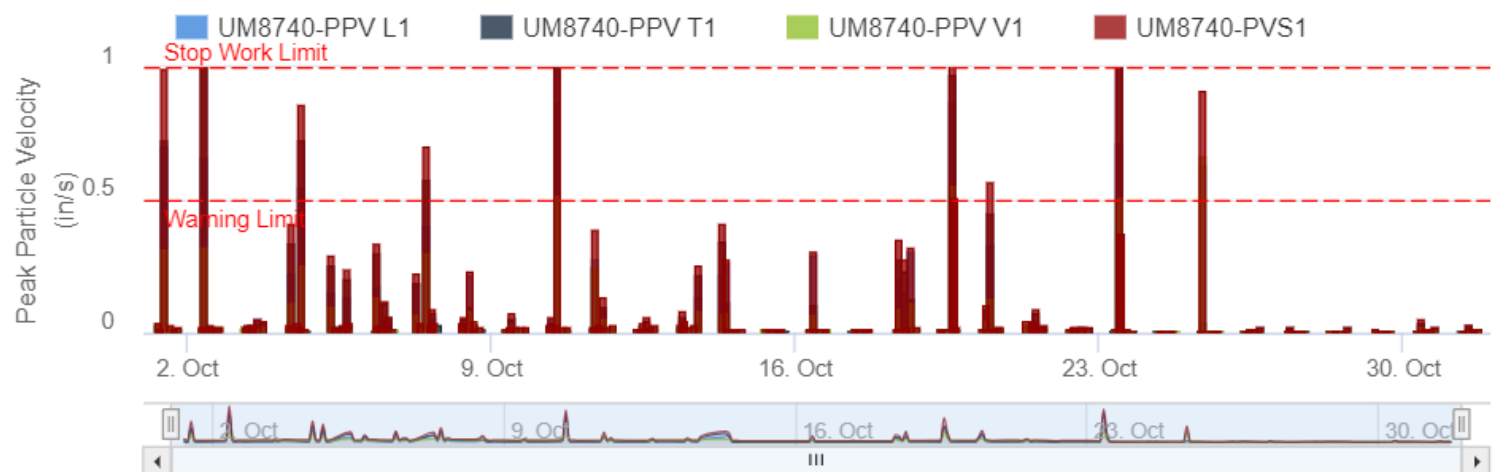
Vibration Monitor – (R13) October 23:

vibr62/BBJ Dismantle/Vibration/R13-UM8449 (125 White St- NYC Family Court- N
East-Through Holdings)/24hr Chat

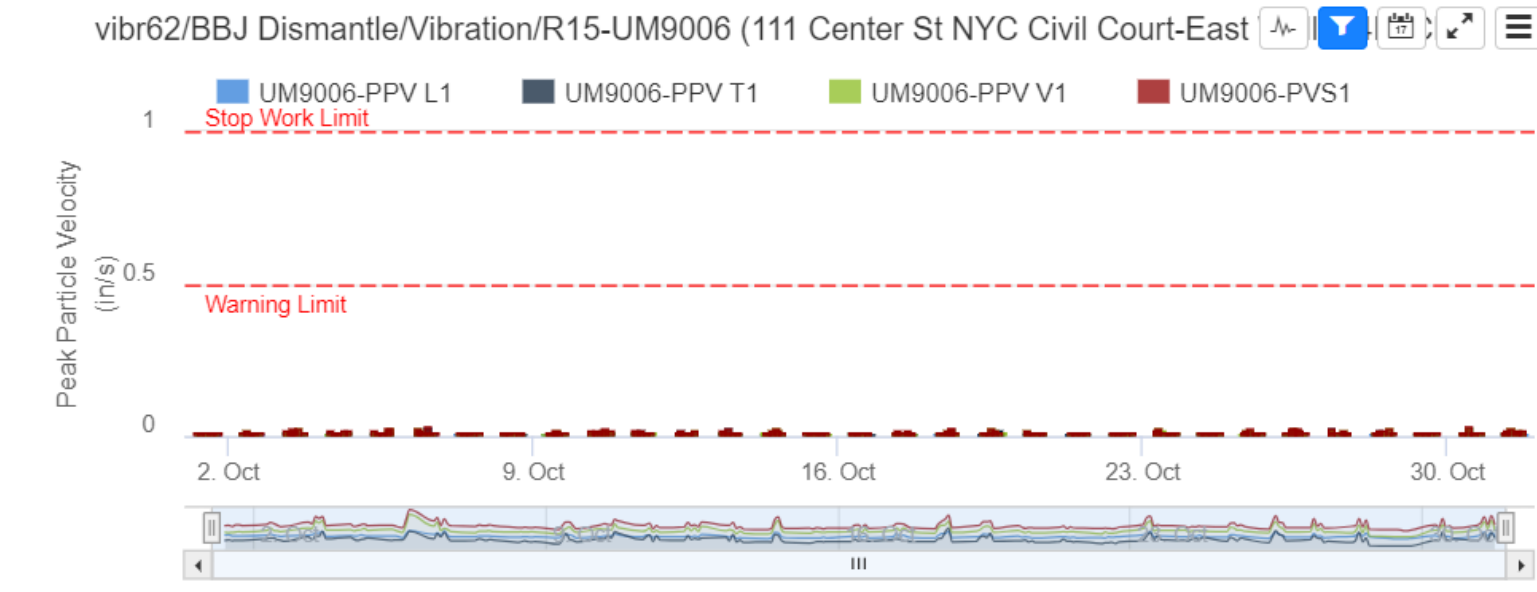


Vibration Monitor – (R14) October 23:

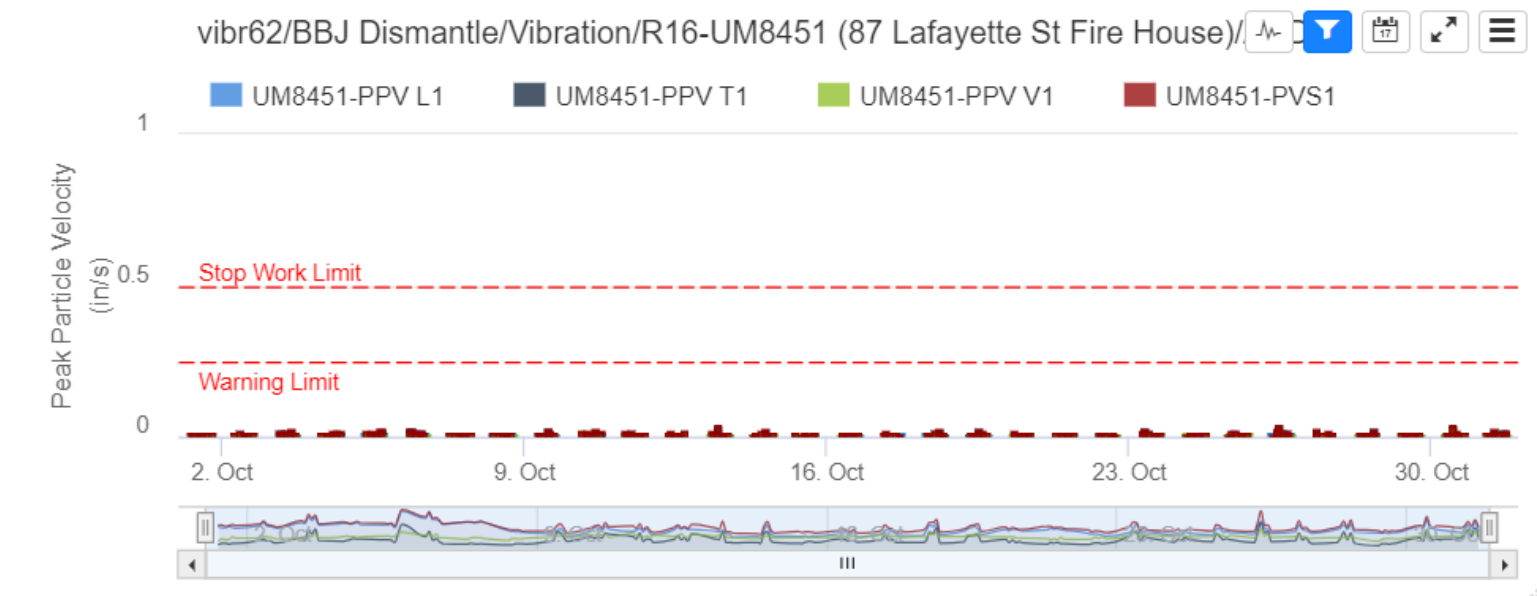
vibr62/BBJ Dismantle/Vibration/R14-UM8740 (125 White St- NYC Family Court- N
East-CJA Intake)/24hr Chat



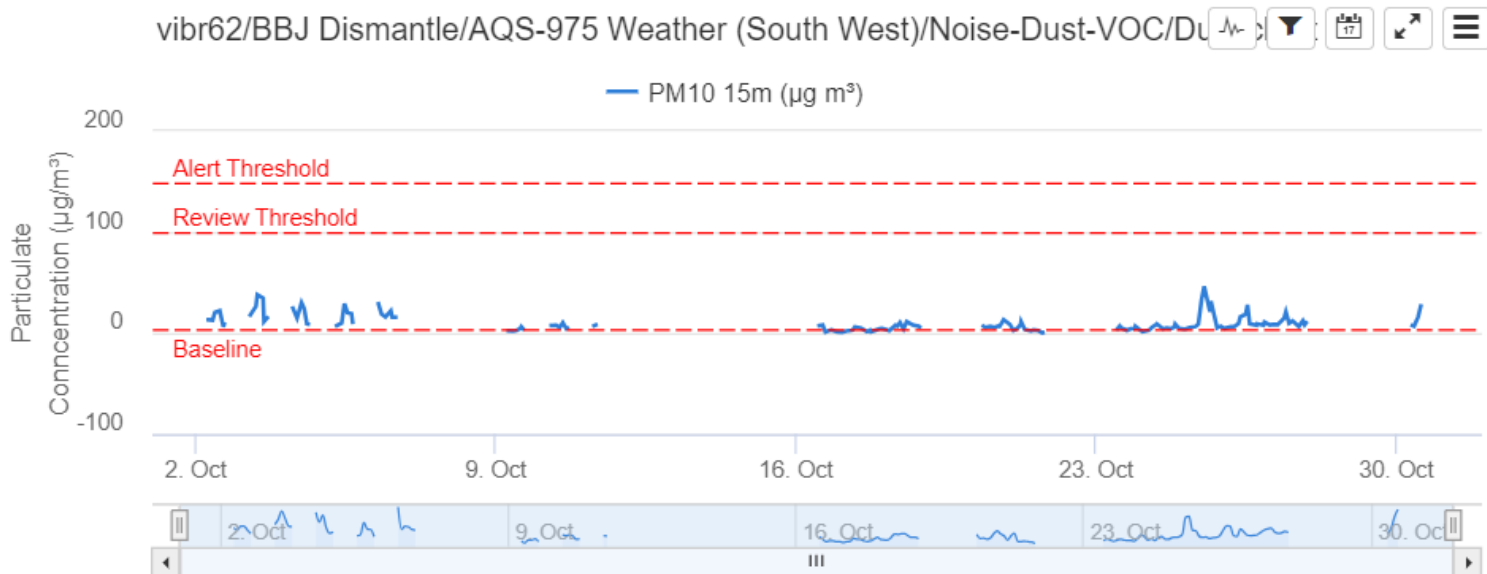
Vibration Monitor – (R15) October 23:



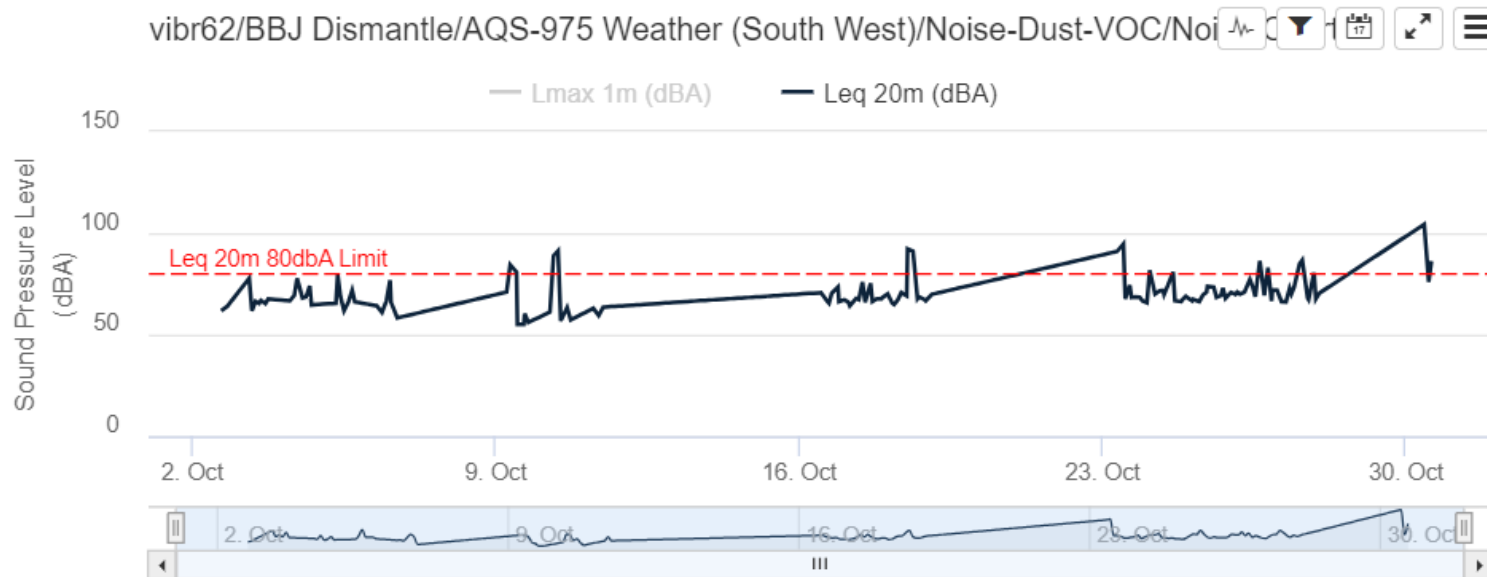
Vibration Monitor – (R16) October 23:



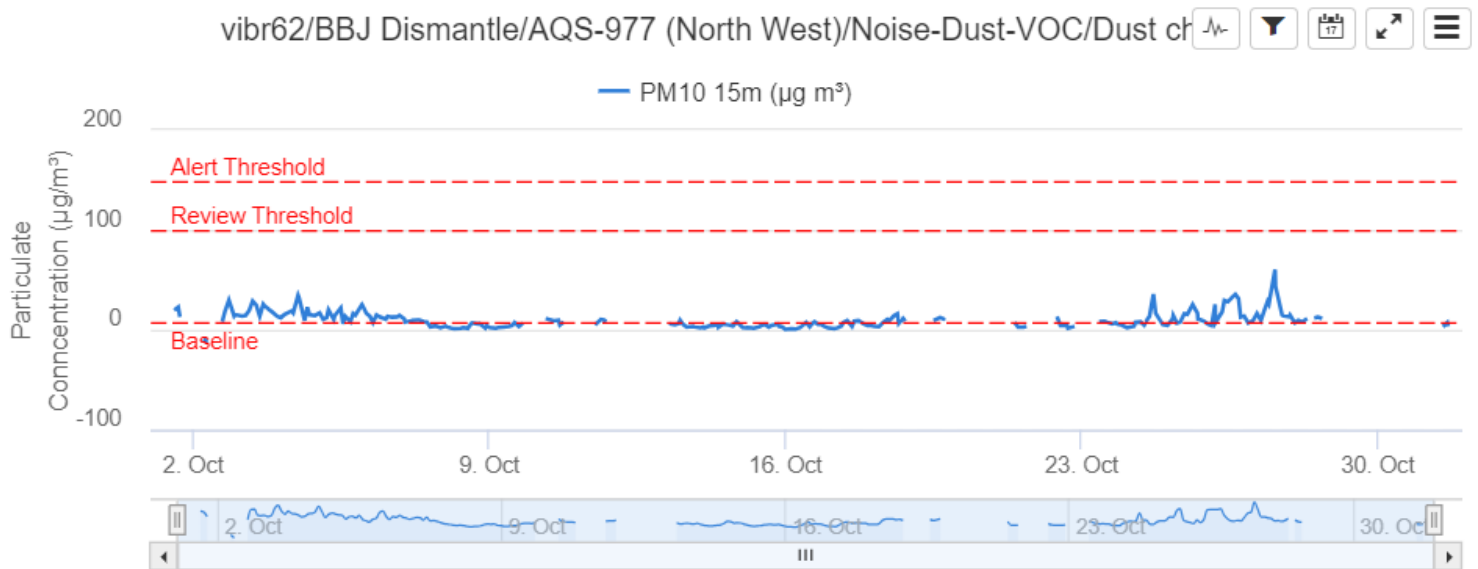
Air Quality Systems #975 – Dust Monitoring Station – October 23:



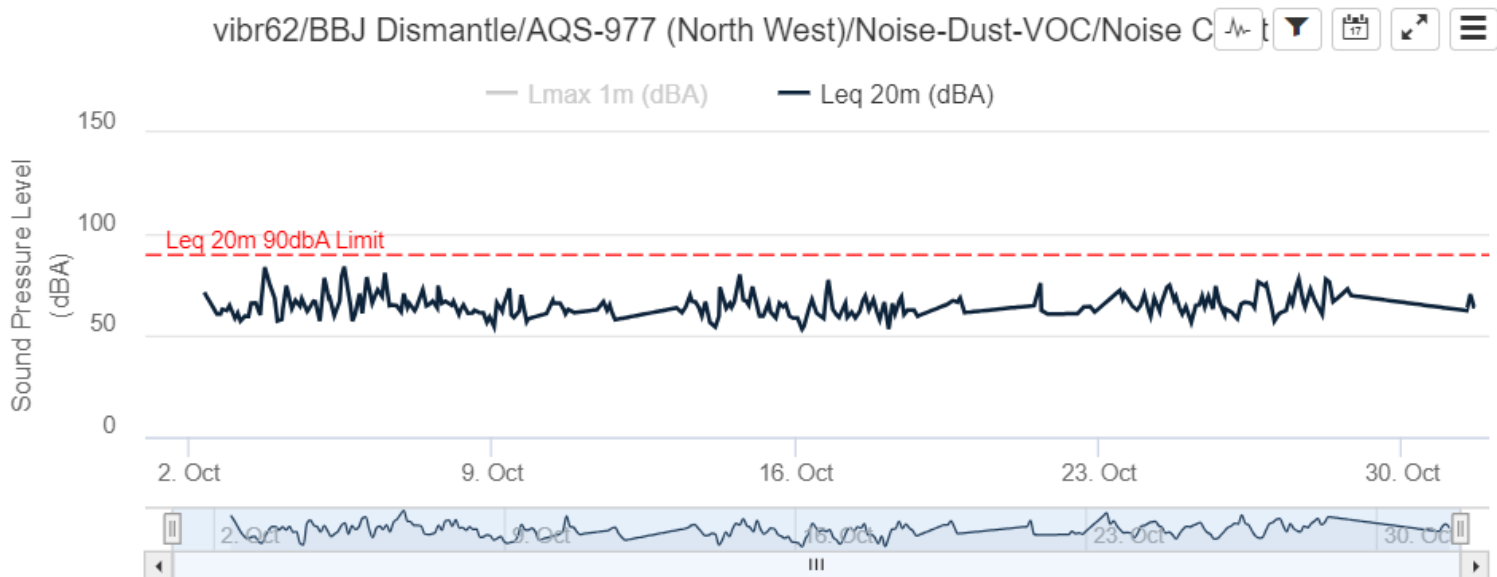
Air Quality Systems #975 – Noise Monitoring Station – October 23:



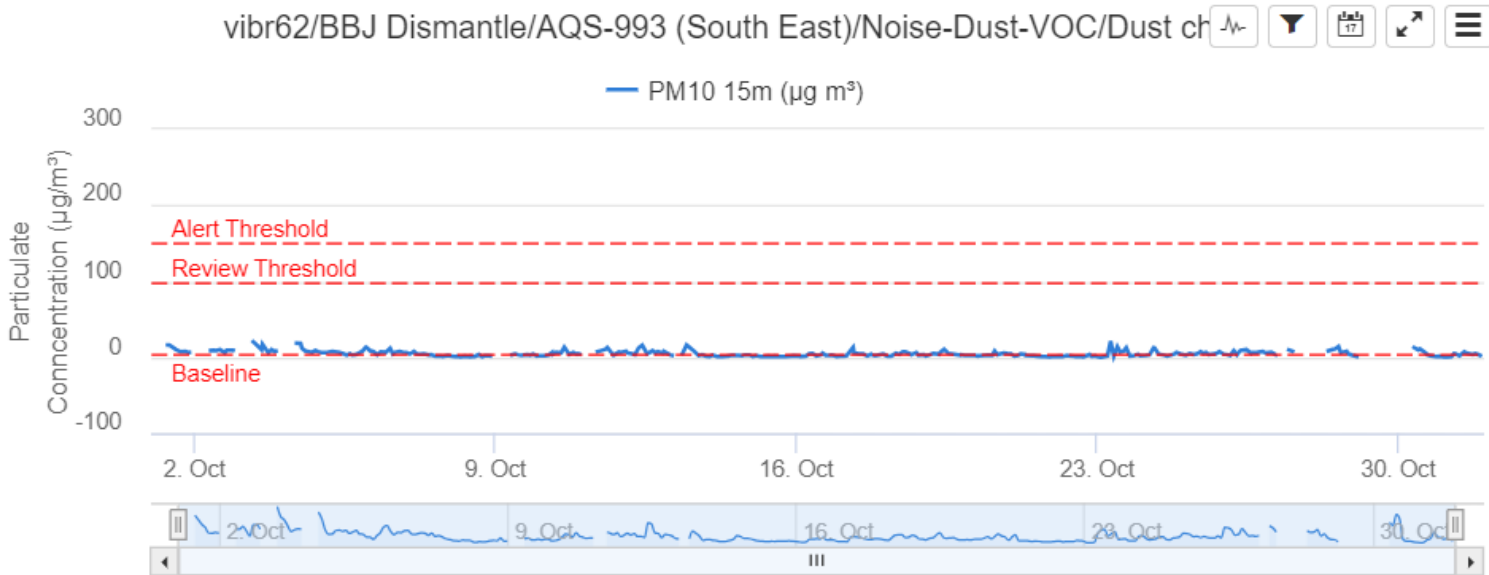
Air Quality Systems #977 – Dust Monitoring Station – October 23:



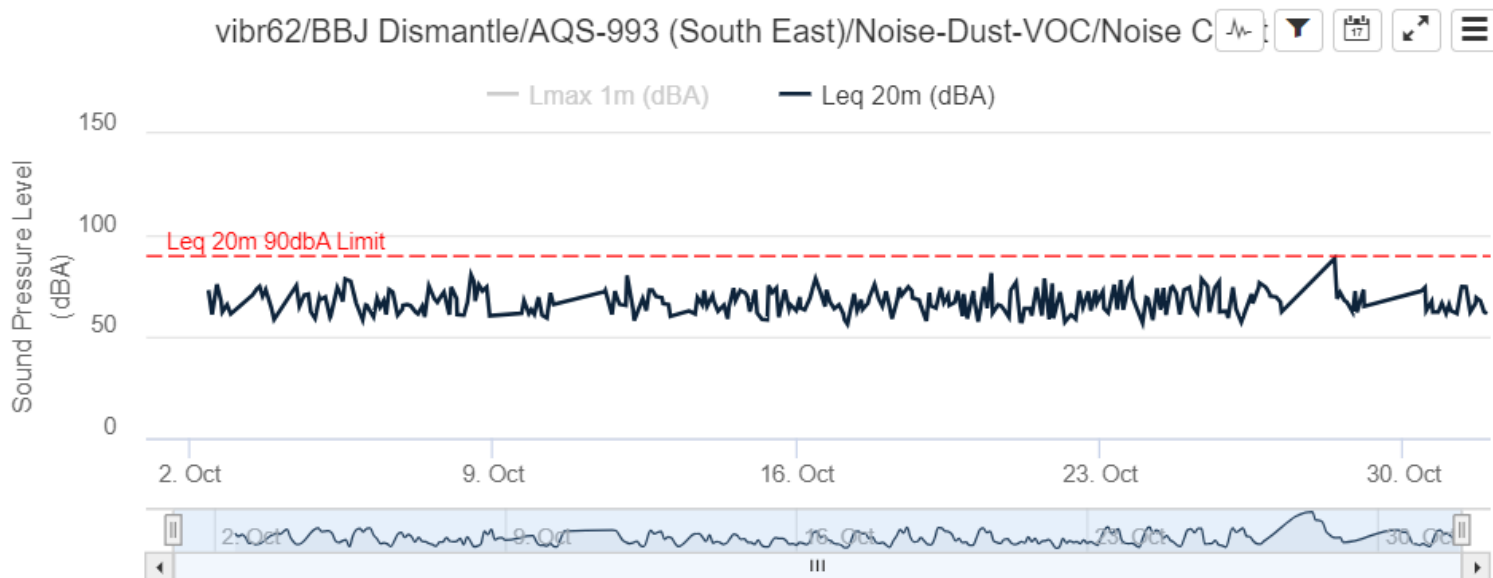
Air Quality Systems #977 – Noise Monitoring Station – October 23:



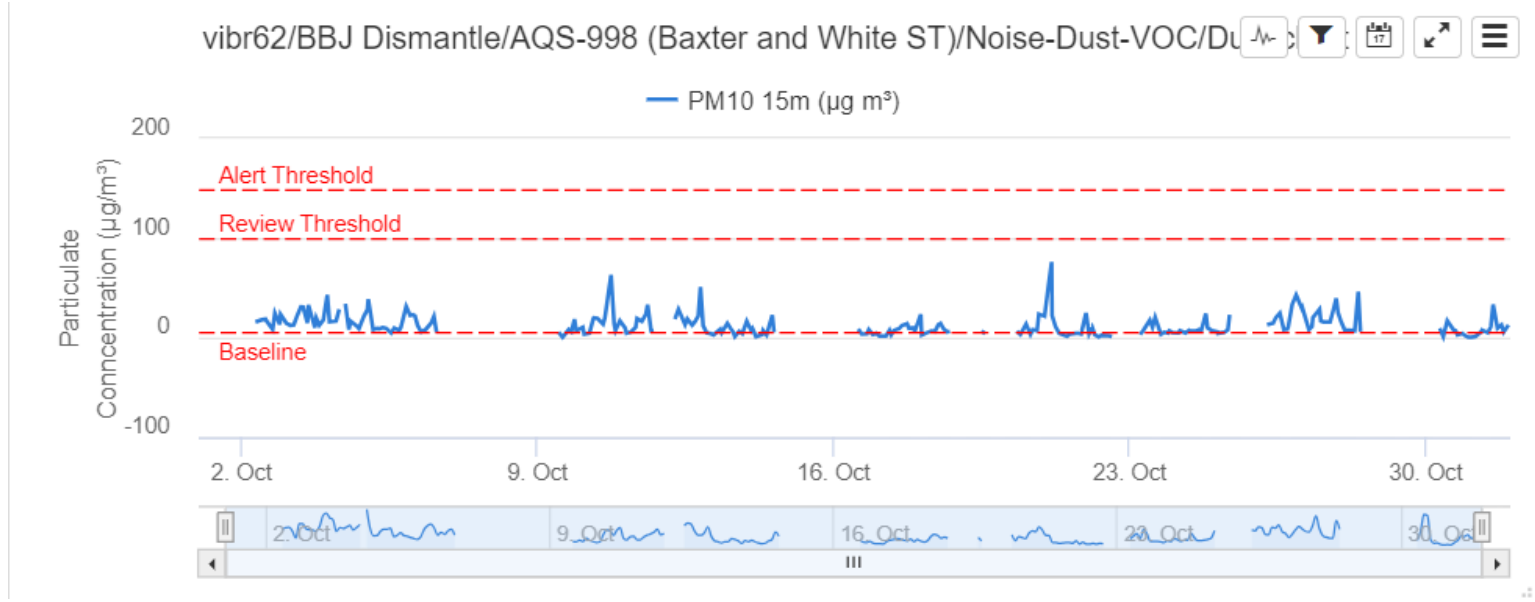
Air Quality Systems #993 – Dust Monitoring Station – October 23:



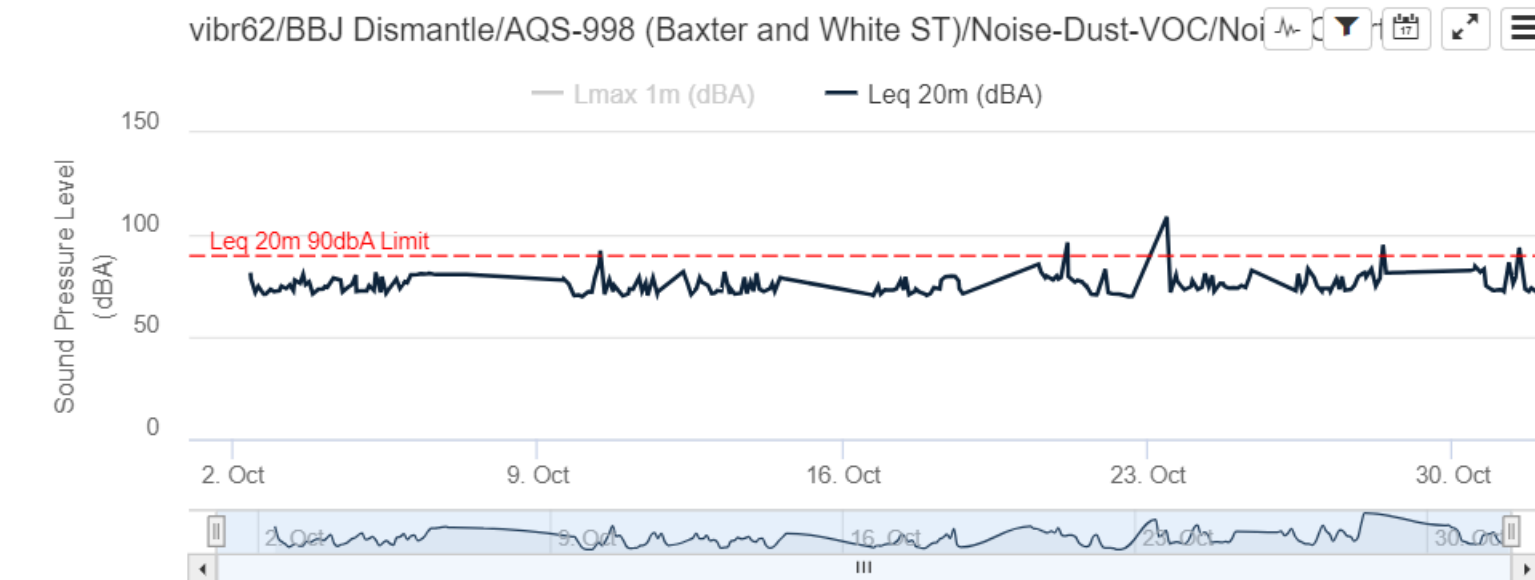
Air Quality Systems #993 – Noise Monitoring Station – October 23:



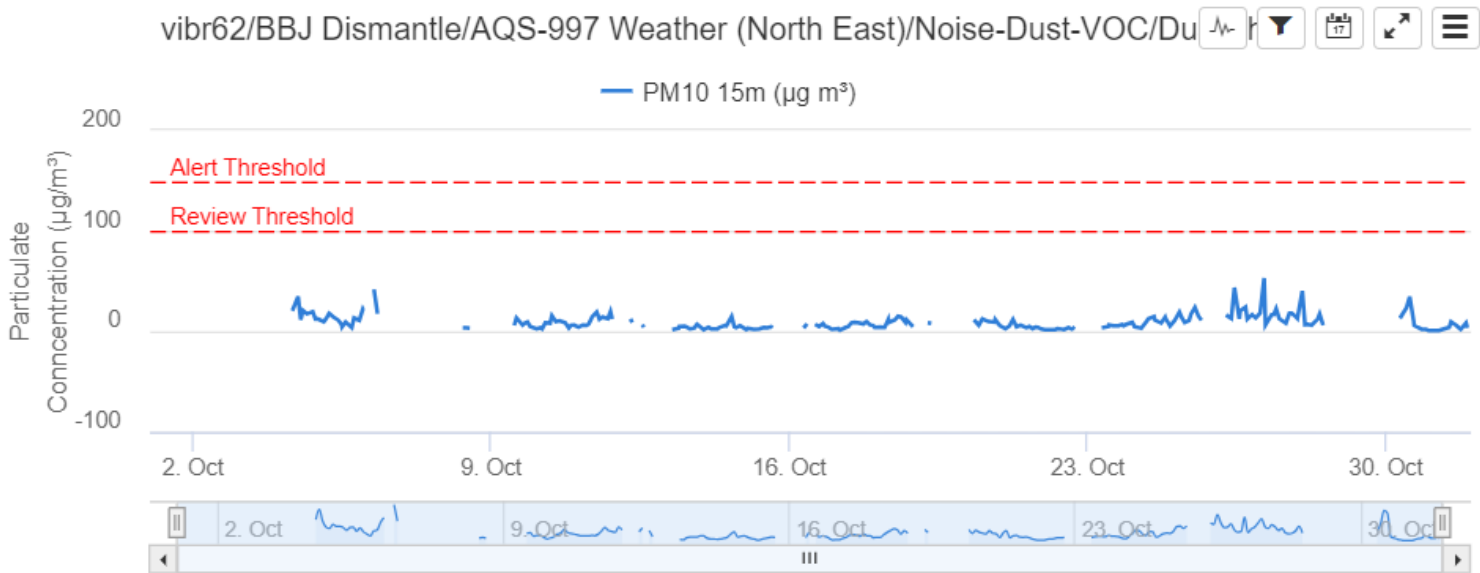
Air Quality Systems #998 – Dust Monitoring Station – October 23:



Air Quality Systems #998 – Noise Monitoring Station – October 23:



Air Quality Systems #997 – Dust Monitoring Station – October 23:



Air Quality Systems #997 – Noise Monitoring Station – October 23:

