

**AIR, NOISE AND VIBRATION
MONTHLY MONITORING REPORT
Number 013 – August 2023**

Prepared By:
Gramercy
Group Inc.

DDC. Project ID:	BBJ M DSS	Period Start: 8/01/23 End 8/31/23	
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/m³ 15 minute TWA)	Comments
23	31	2	The 2 alerts for the month of August were false readings. These spikes in the data were caused by the relocation/reinstallation of AQS # 998 and AQS #997. 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/m³)	Maximum Dust Reading After Corrective Action 15 Minute TWA (ug/m³)	Corrective Action
8/21/23 @ 10:00 AM	184.849	13.165	No corrective action was needed at this time as the spike in the data was a false alarm from reinstallation of the monitor and was not construction related.
8/23/23 @ 2:00 PM	108.072	4.407	No corrective action was needed at this time as the spike in the data was a false alarm from reinstallation of the monitor and was not construction related

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Narrative Summary of Air Monitoring, Excursions and Corrective Actions:

In August 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. Although data shows us having 2 days with levels above the alert threshold, it was not caused by any construction activity as this alert happened because of the relocation/reinstallation of the AQS monitors. The alerts were still immediately acted to ensure no issues to the public or our crew.

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	4	Noise monitoring for the month of August had 4 days that had readings greater than the threshold. All exceedances were not construction related. See summary explanation below. We have installed a new one across the street on Baxter Street. This unit will give better accuracy to the noise the public is experiencing and will be incorporated in this report. Monitoring was continued every day of the week and 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
8/28/23 @ 12:21 PM	115.9 dBA	82 dBA	No corrective action feasible as this noise is unrelated to construction activity. (Site is on lunch break at this time)

8/21/23 @ 11:40 AM	110.1 dBA	63.6 dBA	No corrective action feasible as this noise is unrelated to construction activity. This was caused by a recalibration and the monitor being serviced.
8/23/23 @ 12:00 PM	112.4 dBA	68.8 dBA	No corrective action feasible as this noise is unrelated to construction activity. This was caused by a recalibration and the monitor being serviced.
8/19/23 @ 5:30 PM	90.6 dBA	58.7 dBA	No corrective action feasible as this noise is unrelated to construction activity. Although we did work on 8/19 which was a Saturday, the site was closed at 3:30PM so this exceedance happened after working hours.

Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:

During the month of August, we experienced noise levels greater than the alert threshold AQS monitor #998, #993, #977, & #997. After investigation of the cause of these spikes in noise in this area, it was noted that these alerts were not caused by construction activity. As stated in the last report, AQS #998 was to be relocated from inside of our site to across the street on the residential side of Baxter to get more accurate readings. (see data below) This monitor experienced an exceedance but it was during the crews lunch break I was unable to pin point the exact cause of the exceedance but its safe to say probably caused by traffic or sirens as our site was not active at 12:21 PM. The additional exceedance shown for the month of August from AQS #993 was also a false reading. The exceedance shown was caused during a recalibration / service for a faulty piece of equipment that needed to be replaced. This was confirmed when we got the alert I went out and was able to make contact with the technician from Vibranalysis and he said it was due to him servicing the microphone of the monitor. For AQS #977, as stated above, this exceedance did happen on a Saturday that we were working. However, it was at 5:30 PM and the site closed at 3:30 PM. AQS #997 was mobilized onto Baxter Street on 8/23/23, the installation of this monitor was the reason there is an initial spike as shown on the graph.

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	8	All Vibration alerts were from R14 located in the CJA intake area. This is the monitor that gets knocked / bumped into by either officer or inmates during their processing procedures. R11 also had 2 warnings during the month of August which are below the limit. We took every alert seriously and made sure it was not caused by our operations. We are in the process of relocating this monitor to a place in that area that will be more out of their way so we can stop having these false alarms.

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
8/4/23 @ 8:06 AM	4.009 in/sec	0.01 in/sec	NA
8/7/23 @ 8:21 AM	2.593 in/sec	0.013 in/sec	NA
8/11/23 @ 9:18 AM	2.249 in/sec	0.008 in/sec	NA
8/16/23 @ 8:31 AM	4.442 in/sec	0.01 in/sec	NA
8/18/23 @ 11:02 AM	3.827 in/sec	0.005 in/sec	NA
8/19/23 @ 9:23 AM	8.625 in/sec	0.024 in/sec	NA
8/3/23 @ 12:10 PM	0.668 in/sec (warning)	0.065 in/sec	NA
8/23/23 @ 2:37 PM	0.690 in/sec (warning)	0.011 in/sec	NA

Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:

During the Month of August 2023, there were 6 vibration monitor exceedances shown above, and 2 warnings. When we got these alerts, they were investigated immediately..), I also want to reiterate that 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. 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. Vibration monitors R01 and R02 were off during 08/13 – 08/22 due to connection issues. Both monitors had the antennas swapped for larger ones that hold a better connection and since then the issue has been resolved. Vibration monitor R03 (the furthest monitor from the site) was down due to component needing to be replaced within the modem. Vibrabalysis ordered the new part and serviced the unit and was functioning properly again. We would like to reiterate that even though the monitor was down, the other vibration monitors in this area serve as coverage to ensure that vibration from the site is still below the threshold.

ATTACHMENTS:

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

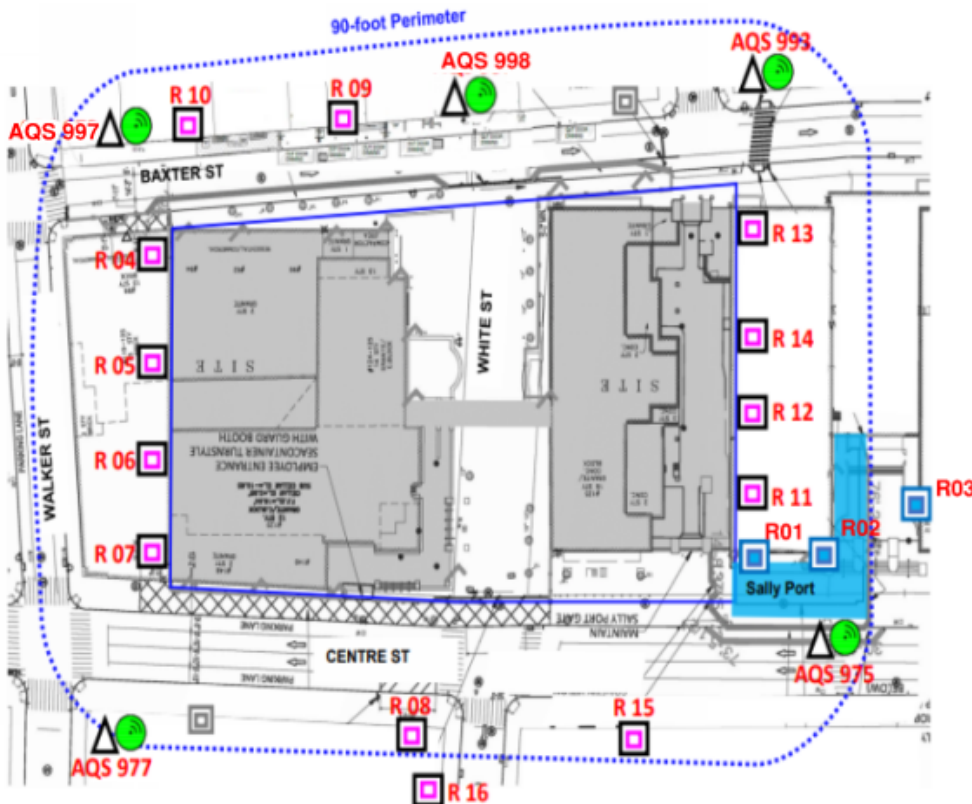
<u>Glossary of Terms</u>	
Terms	Descriptions
<i>Warning Alerts</i>	Warning limit line for vibration monitors is not an indication to stop work. This is to notify DB team to assess the operation and know that we are causing vibration, but not anything exceeding limits and to monitor this area more closely.
<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, 973, 975, 977, & 998.

Environmental Monitoring Manhattan

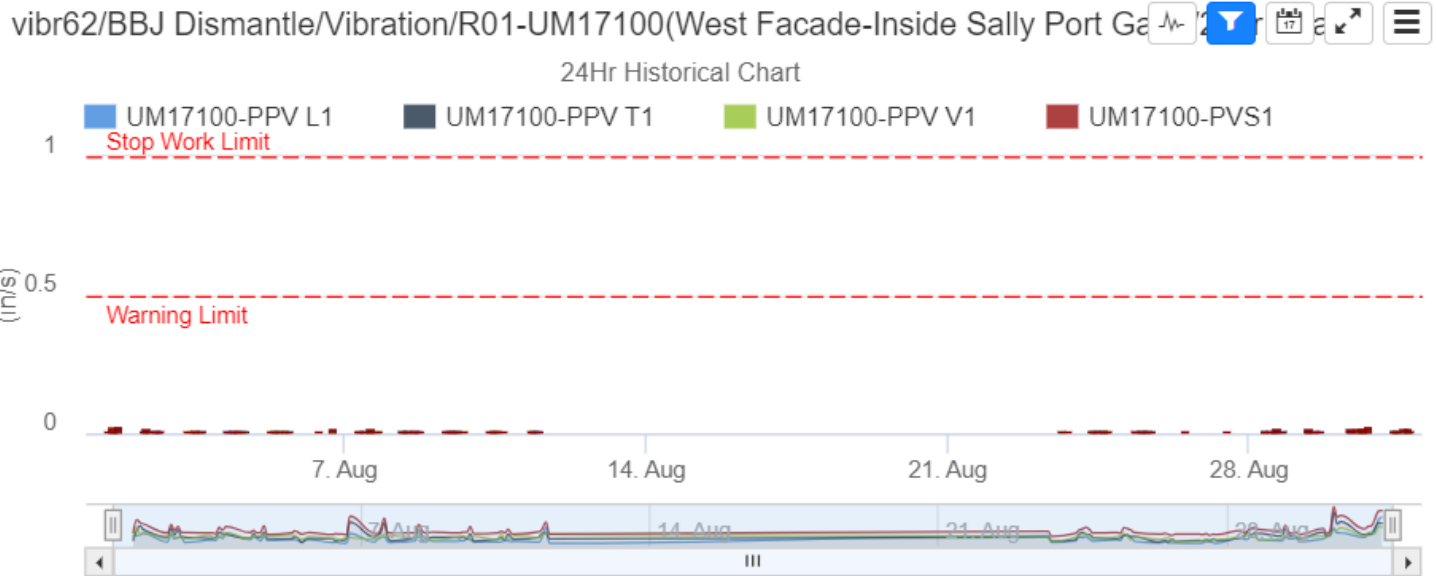


* Dismantle project vibration, air and noise monitoring devices are installed by Design-Build team in Phase 2, after sally port construction. A vibration monitoring station was installed in the DCTV Fire house at 87 Lafayette St.

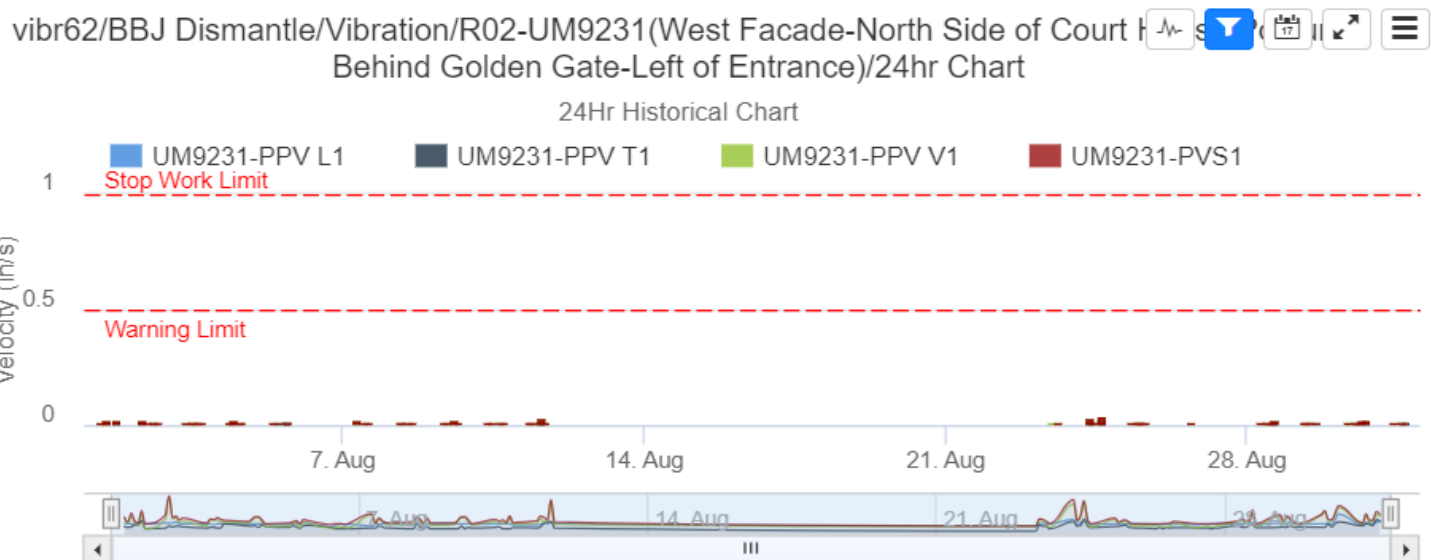
* The location of monitoring stations presented is referential. Air/Noise Monitoring station located in Sally Port area will be relocated in Phase 2.

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

Vibration Monitor – (R01) August 23:

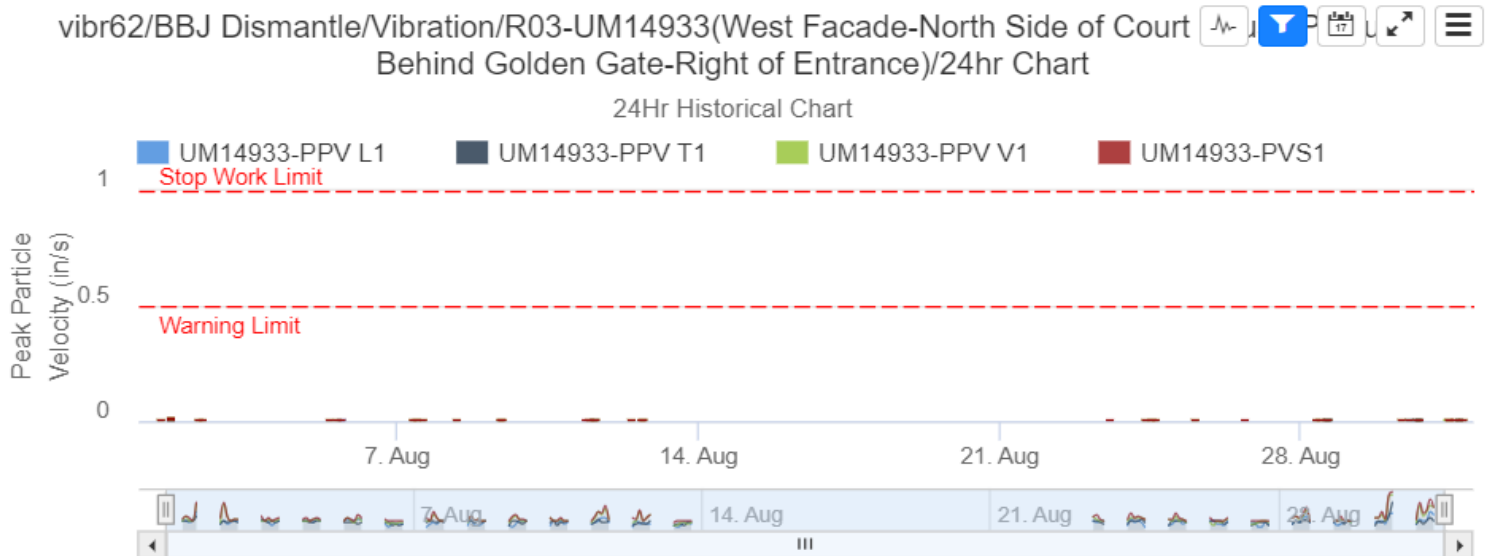


Vibration Monitor – (R02) August 23:

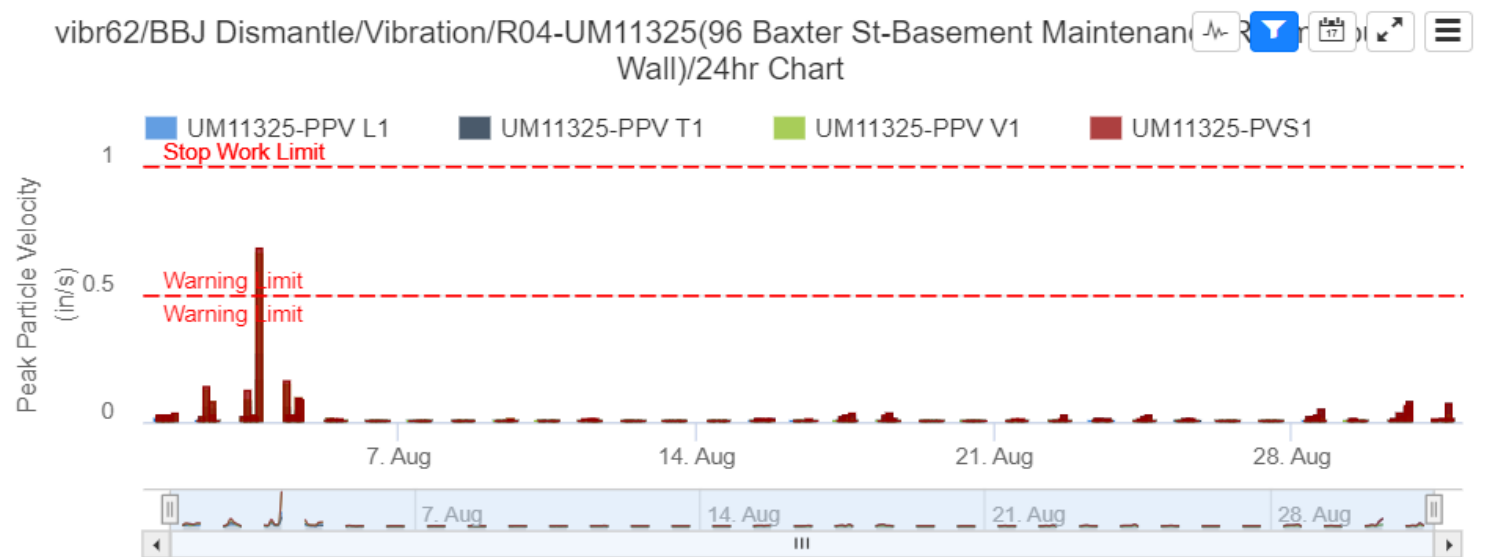


Vibration Monitor – (R03) August 23:

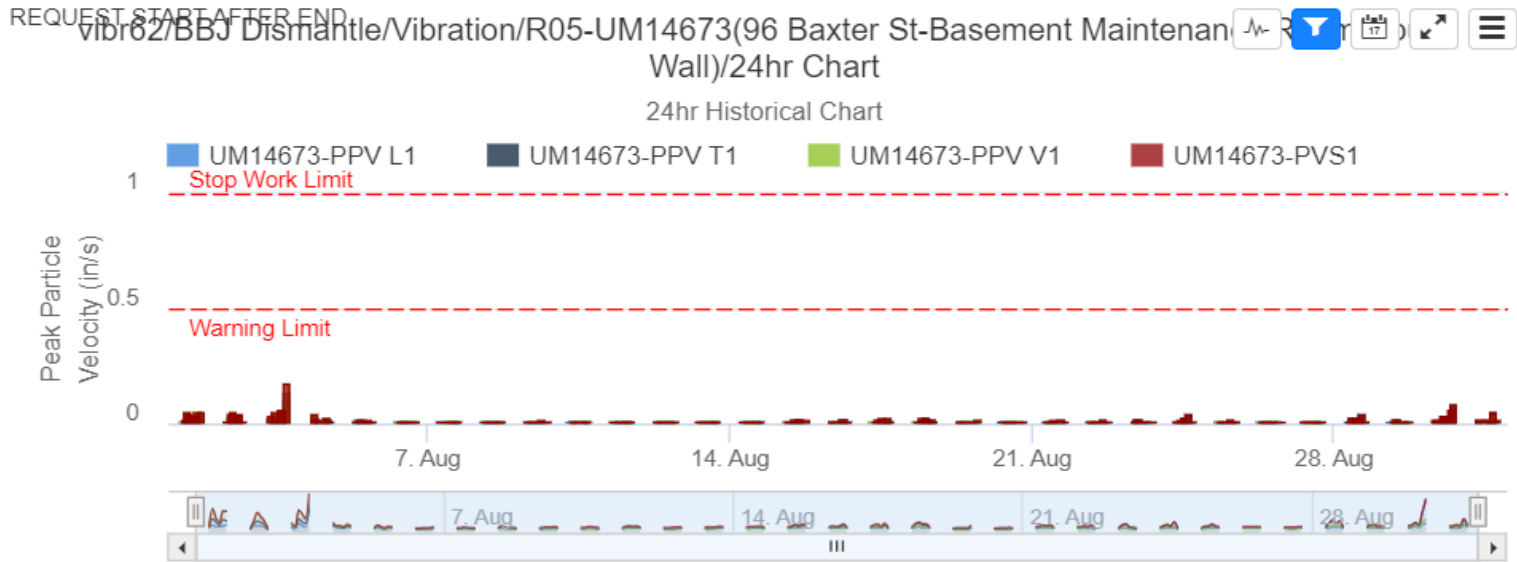
- R03 (the furthest monitor from the site) was down for the period shown below. This was due to one of the components needing to be replaced. Vibranalysis ordered the new part and serviced the unit and was functioning properly again. We would like to reiterate that even though the monitor was down, the other vibration monitors in this area serve as coverage to ensure that vibration from the site is still below threshold.



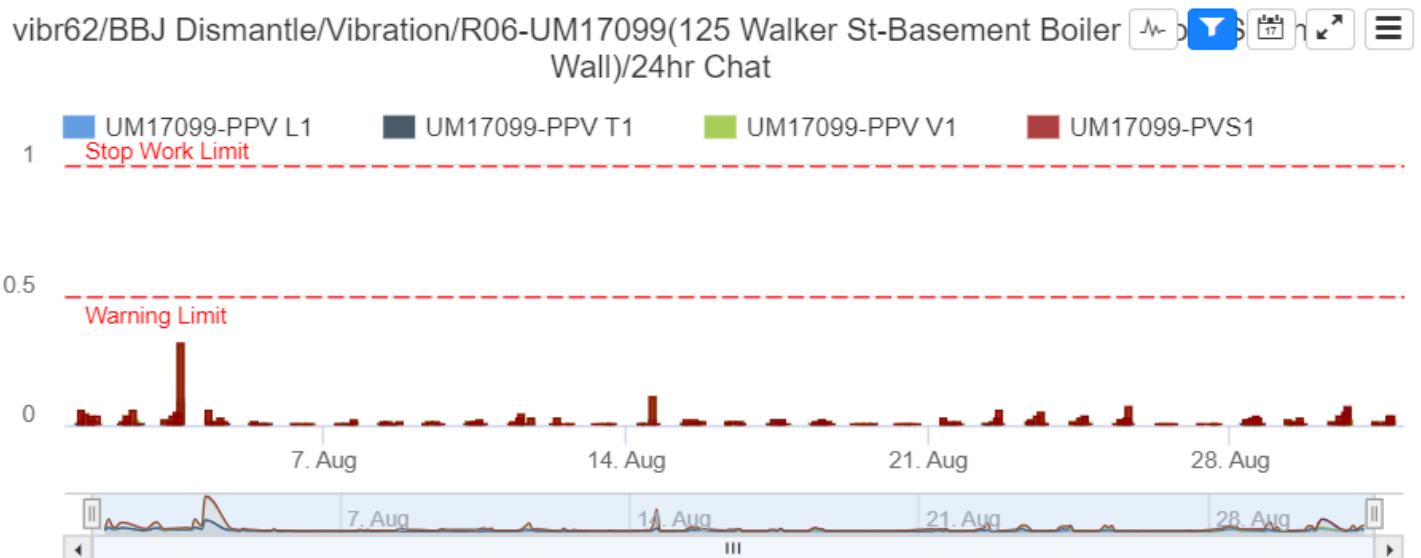
Vibration Monitor – (R04) July 23:



Vibration Monitor – (R05) August 23:



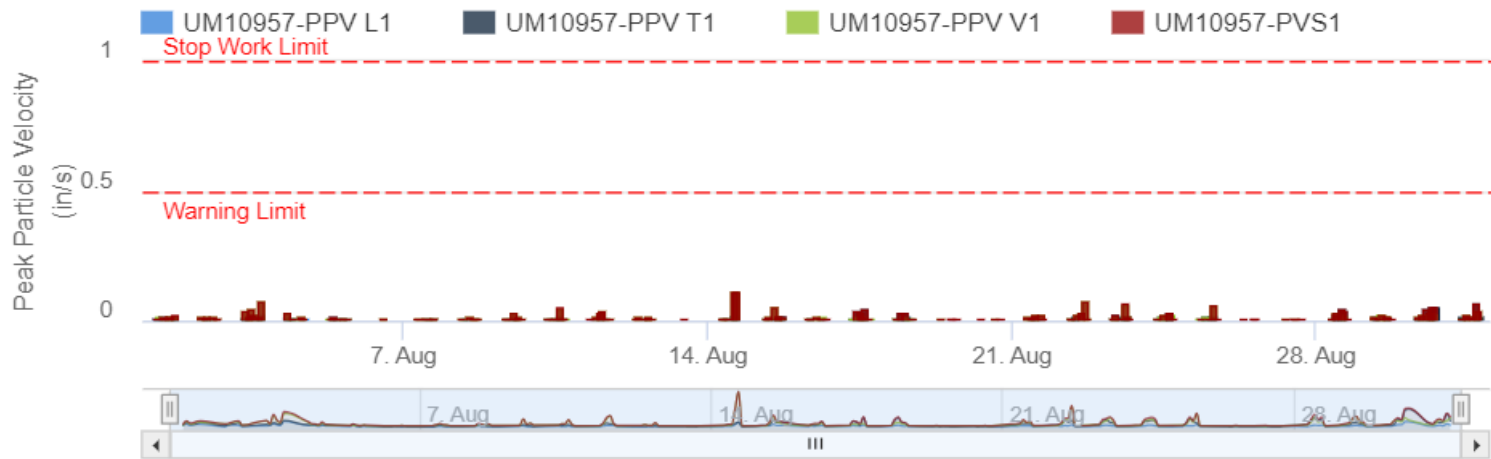
Vibration Monitor – (R06) August 23:



Vibration Monitor – (R07) August 23:

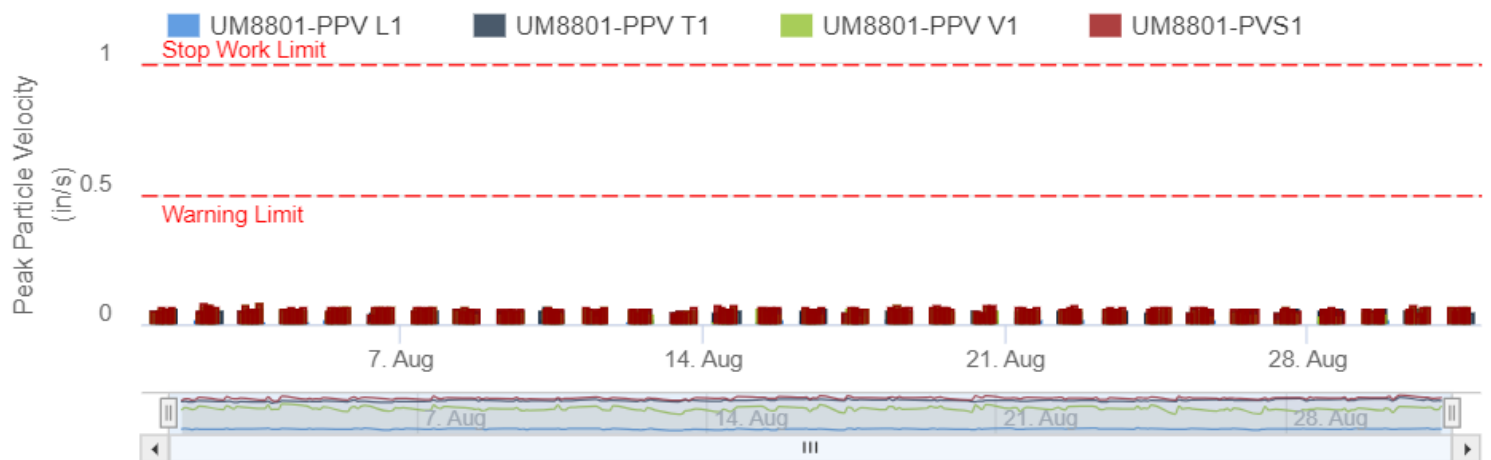
REQUEST START AFTER END

vibr62/BBJ Dismantle/Vibration/R07-UM10957(119 Walker St-1st Floor Emergency
South Wall)/24hr Chat

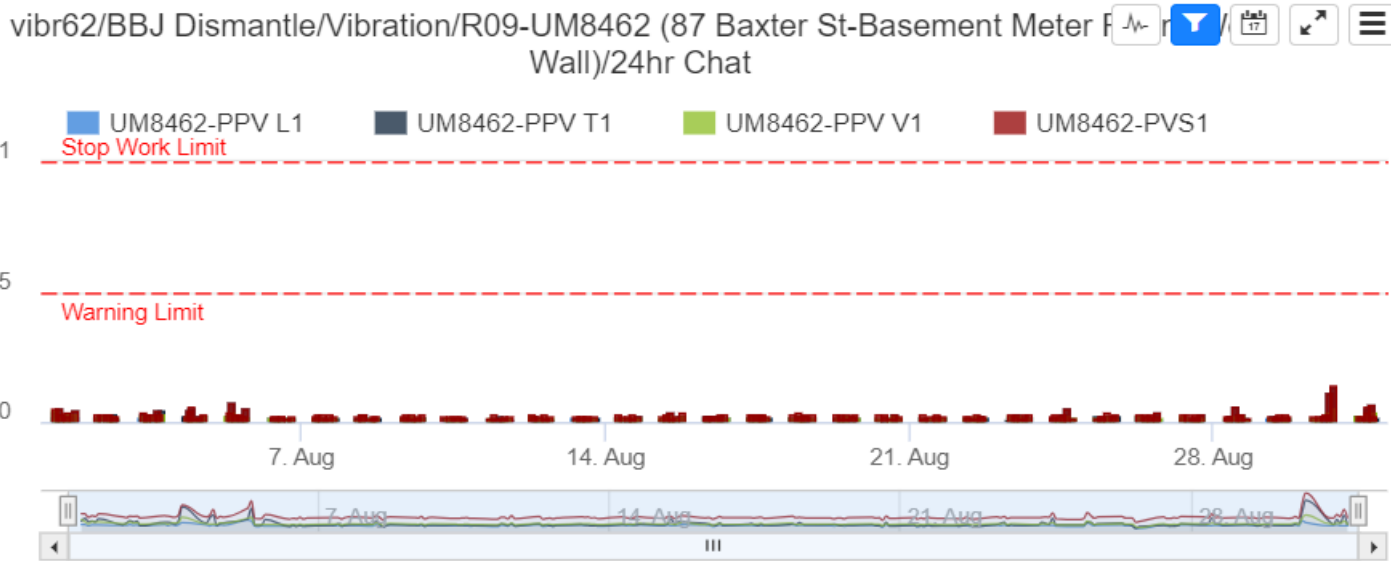


Vibration Monitor – (R08) August 23:

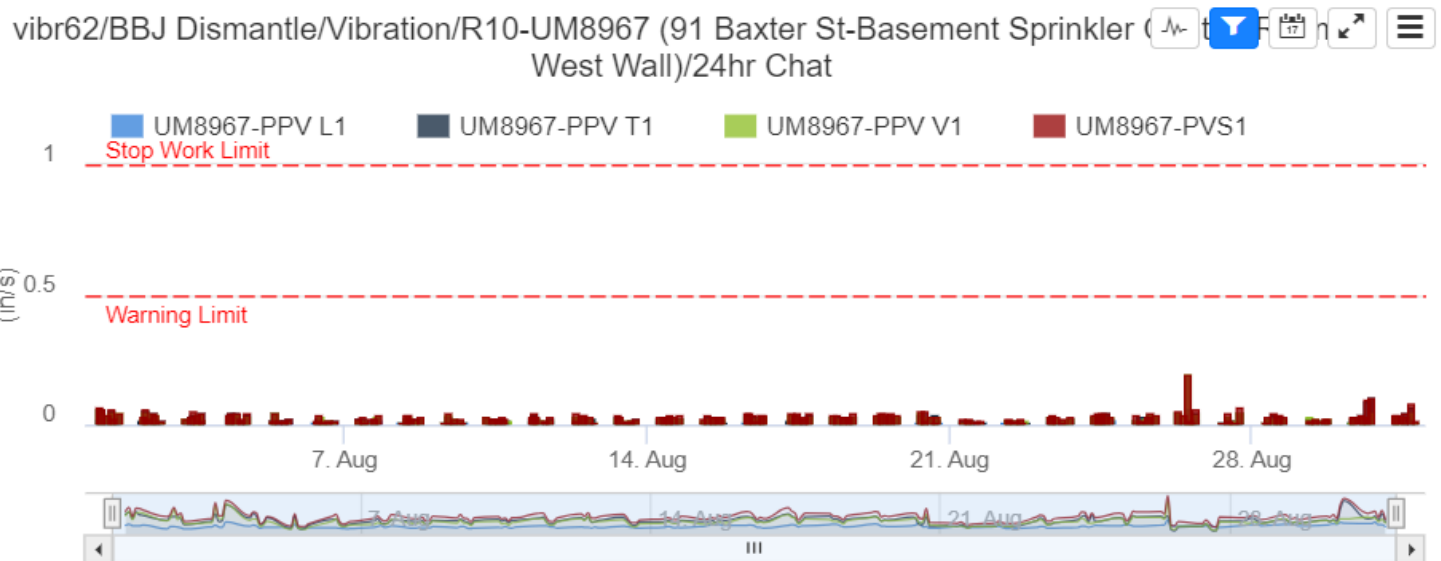
vibr62/BBJ Dismantle/Vibration/R08-UM8801 (137 Centre St-Basement Boiler
Wall)/24hr Chat



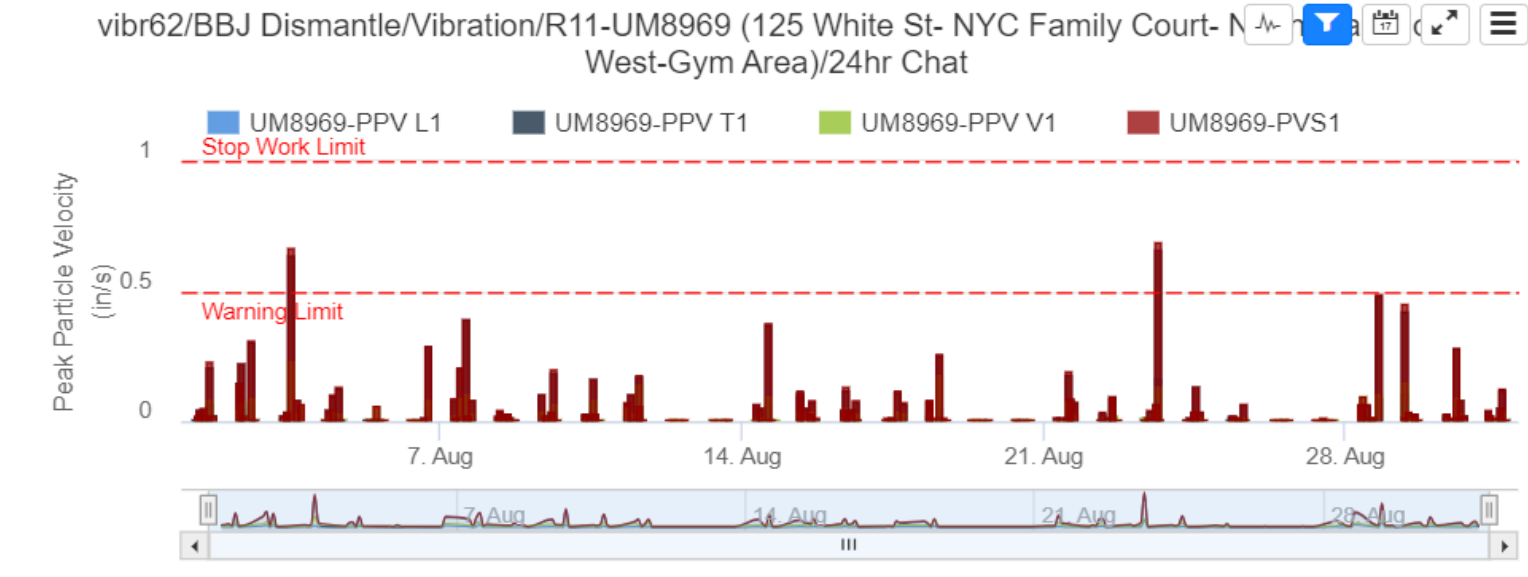
Vibration Monitor – (R09) August 23:



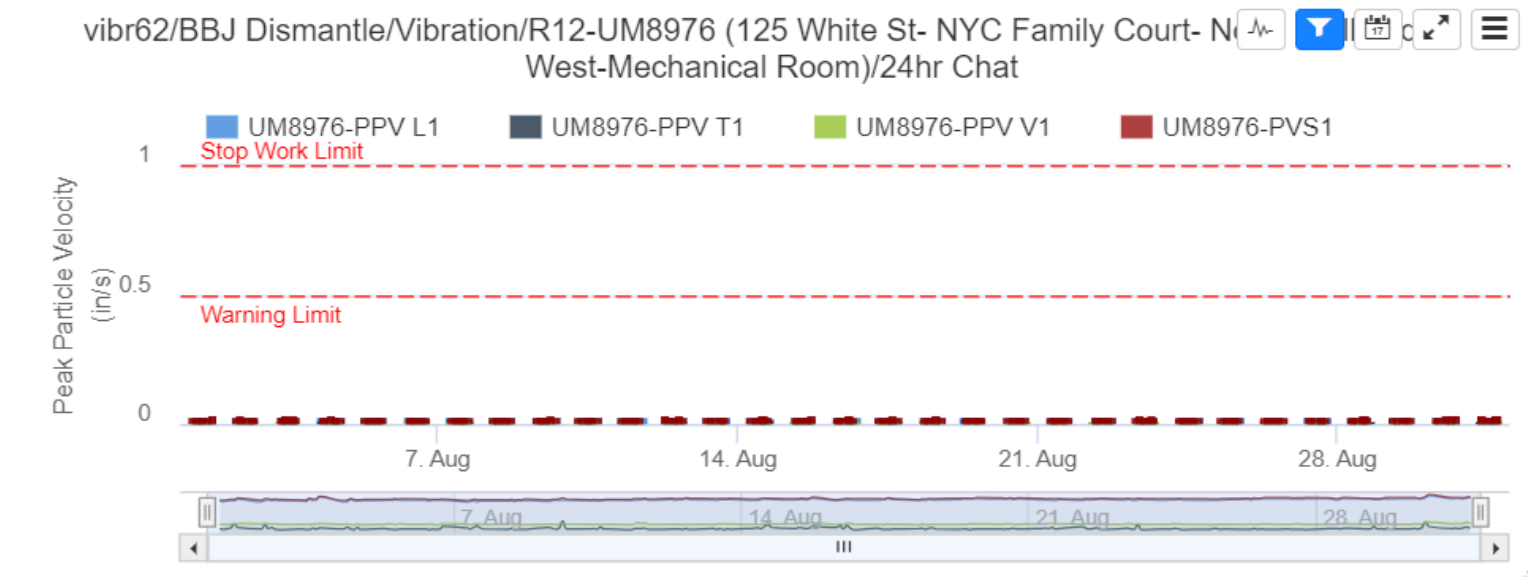
Vibration Monitor – (R10) August 23:



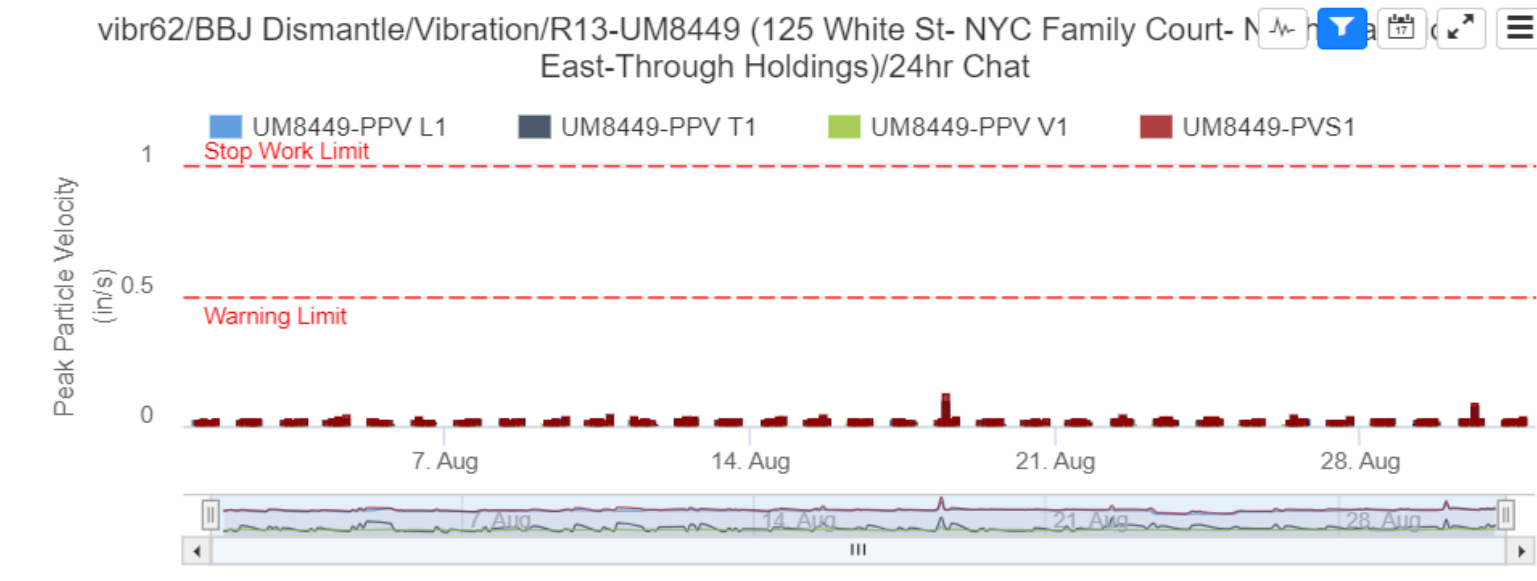
Vibration Monitor – (R11) August 23:



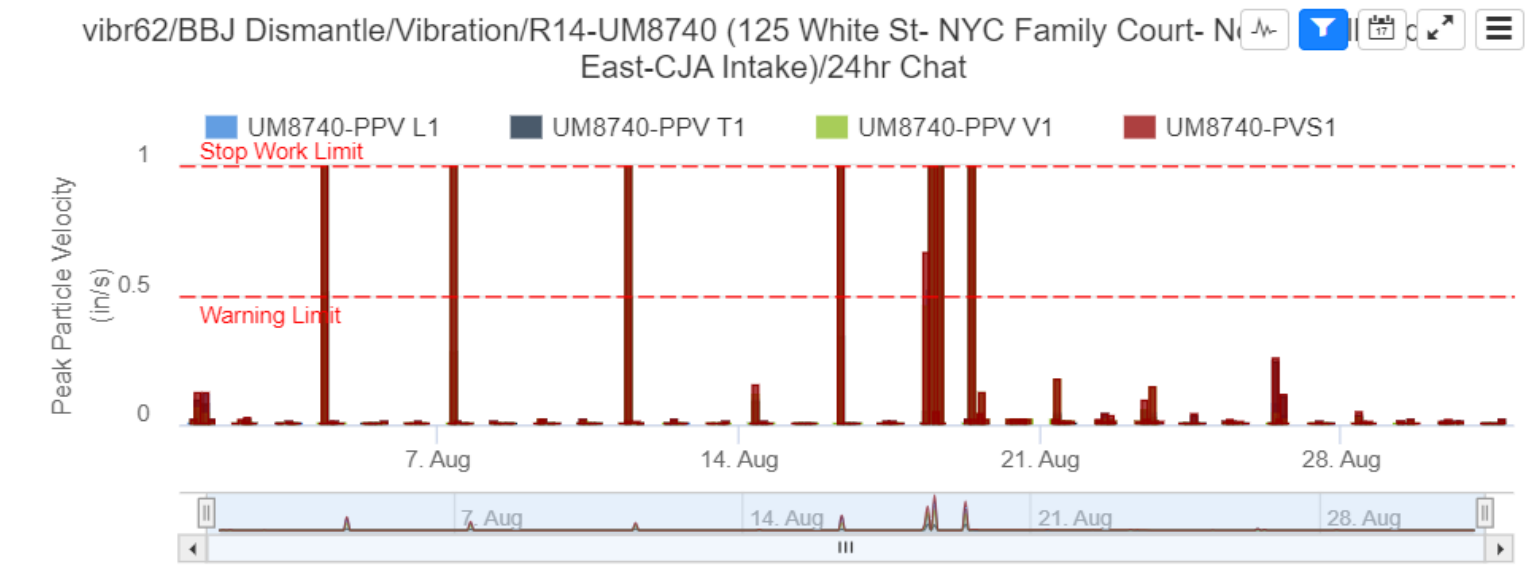
Vibration Monitor – (R12) August 23:



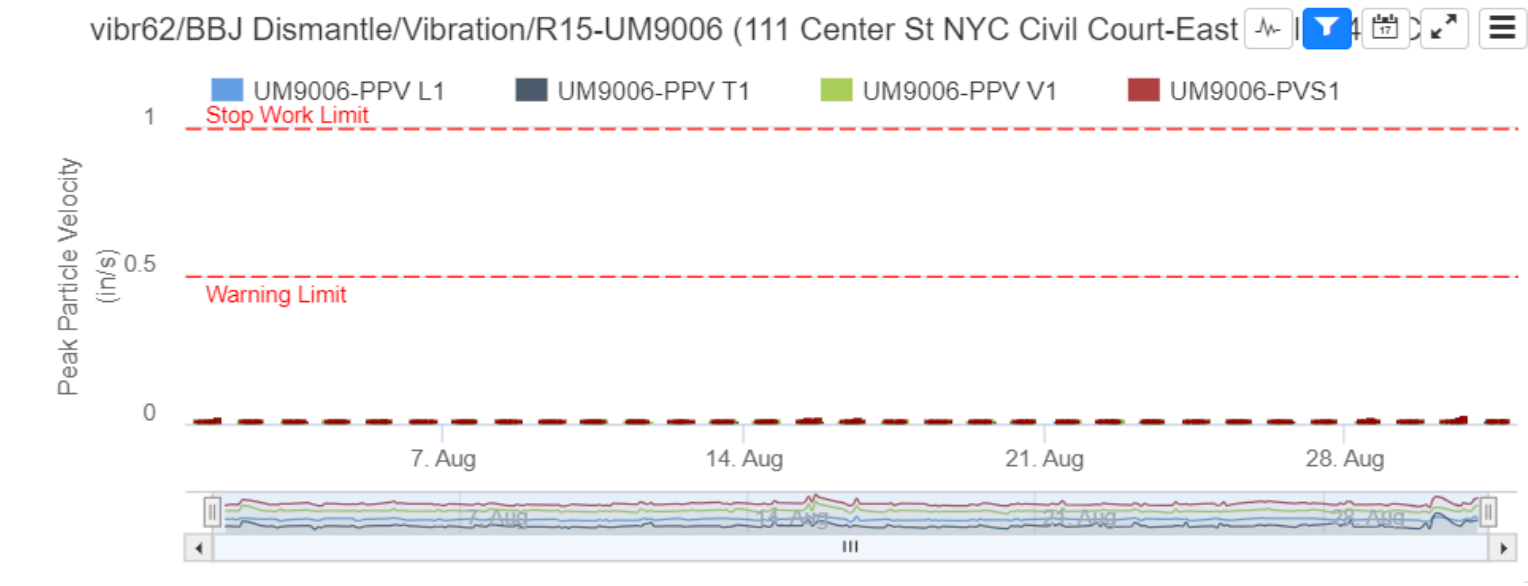
Vibration Monitor – (R13) August 23:



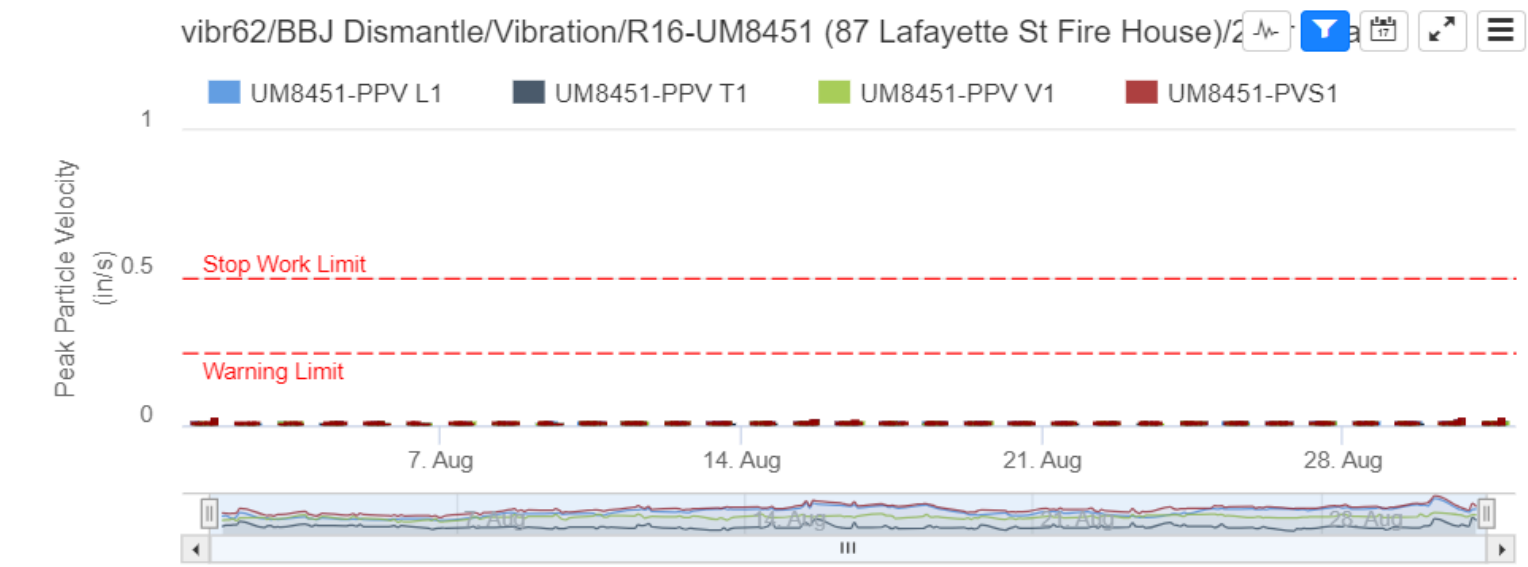
Vibration Monitor – (R14) August 23:



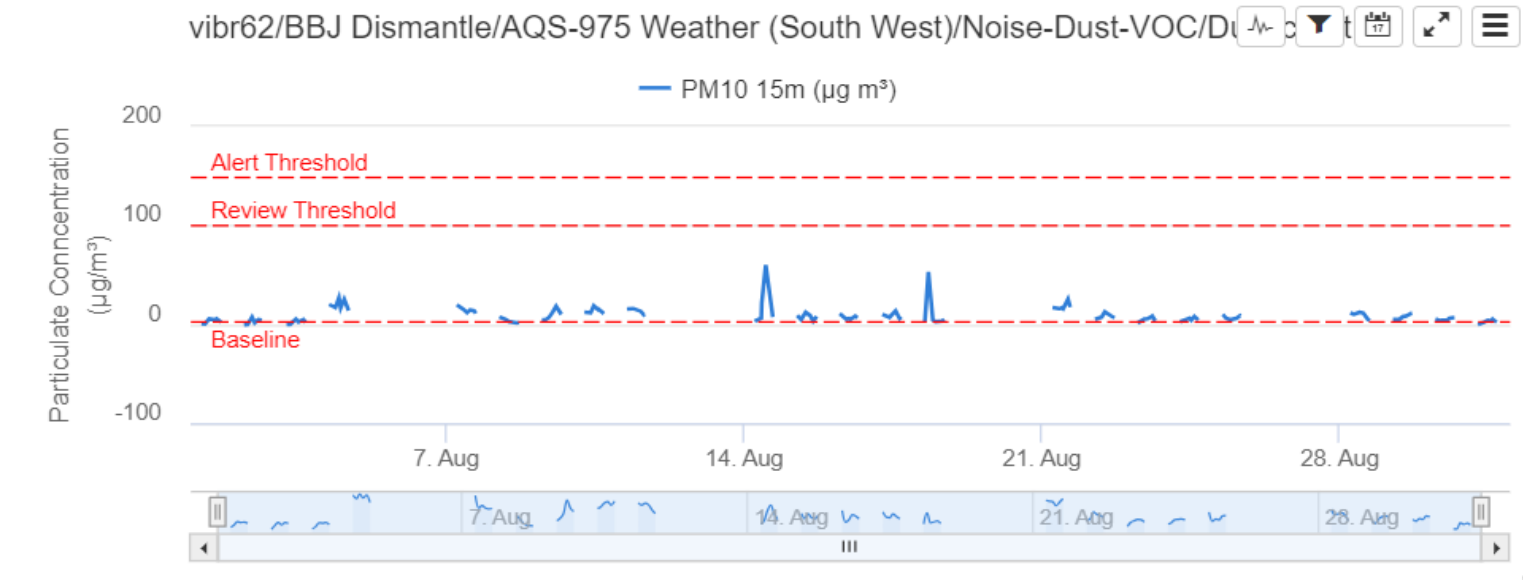
Vibration Monitor – (R15) August 23:



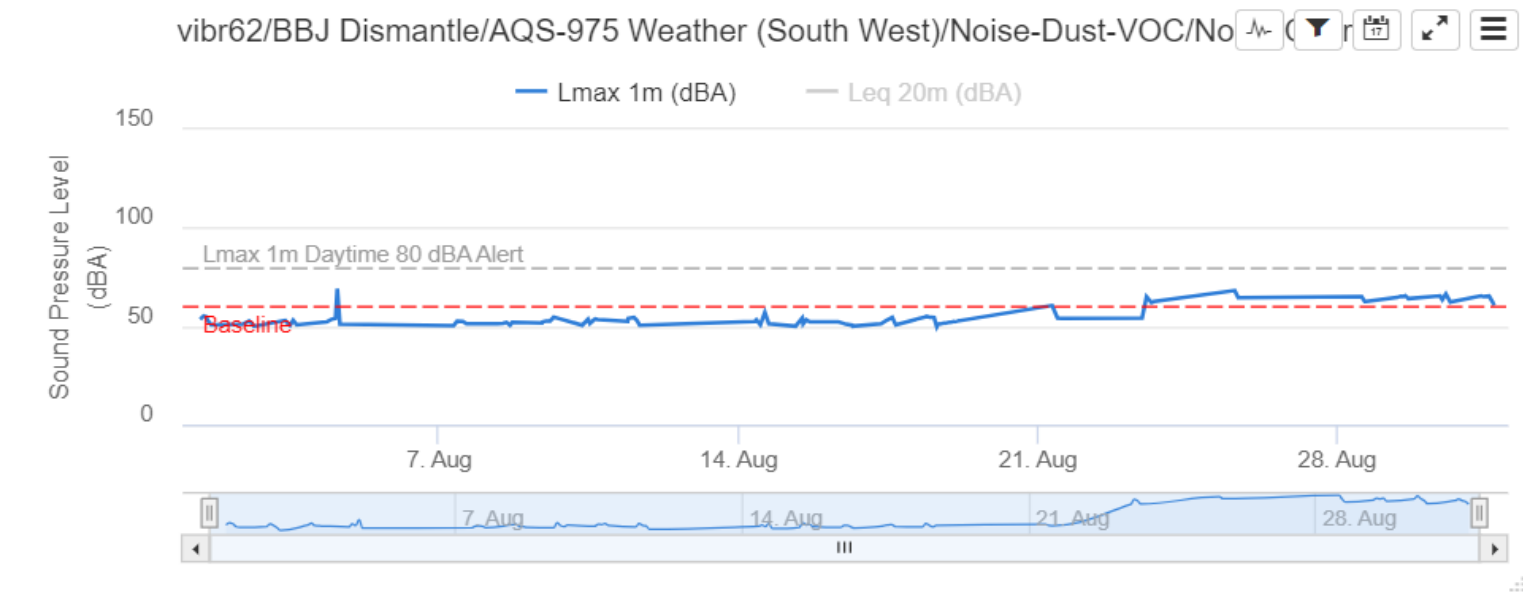
Vibration Monitor – (R16) August 23:



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

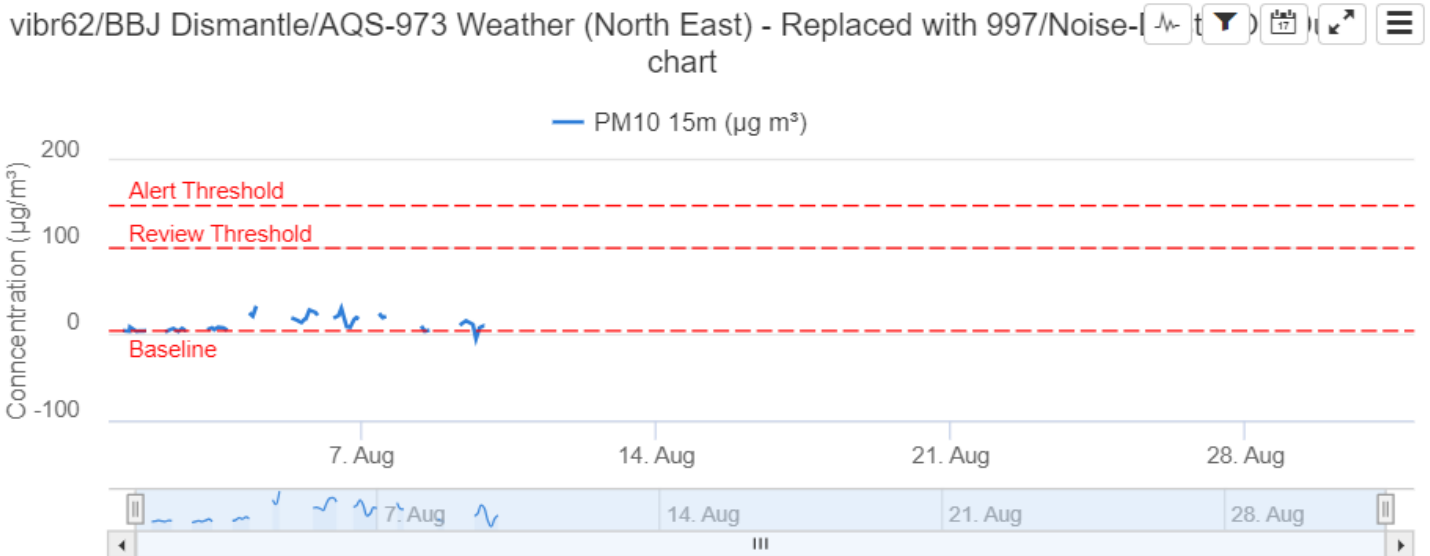


Air Quality Systems #975 – Noise Monitoring Station – August 23:



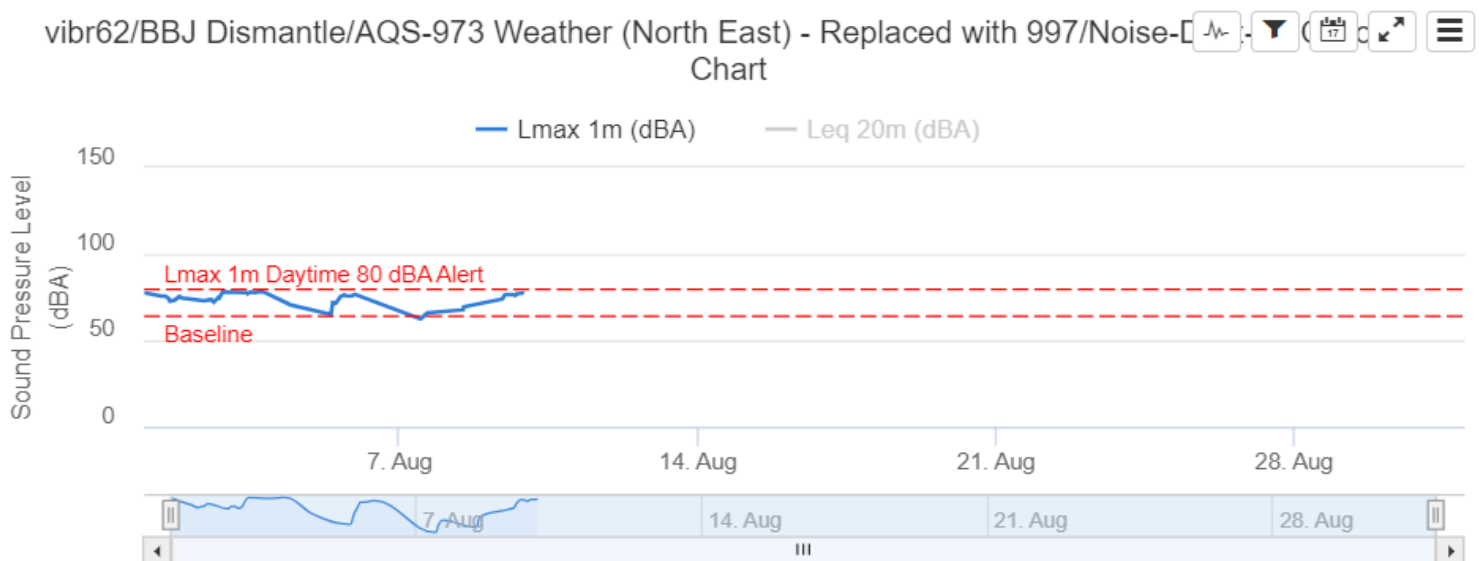
Air Quality Systems #973 – Dust Monitoring Station – August 23:

- Note that this monitor was swapped for a new one due to technical issues. The new monitor for this location is AQS #997. This data is shown below.

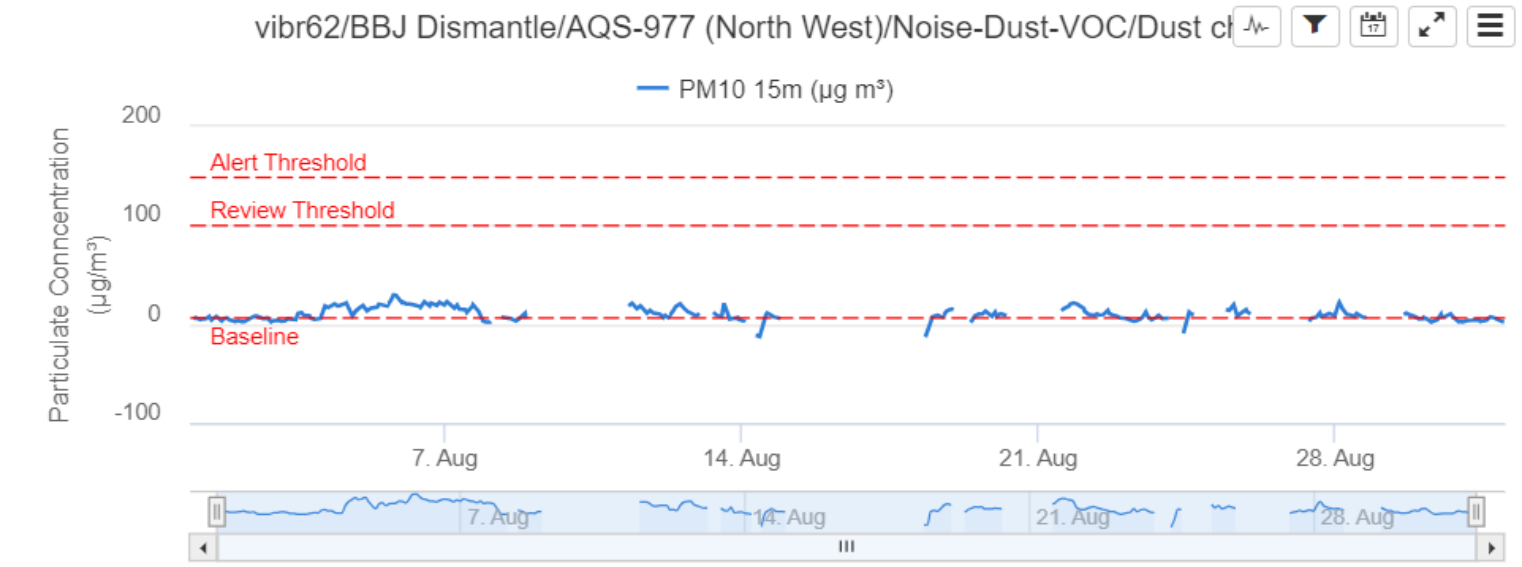


Air Quality Systems #973 – Noise Monitoring Station – August 23:

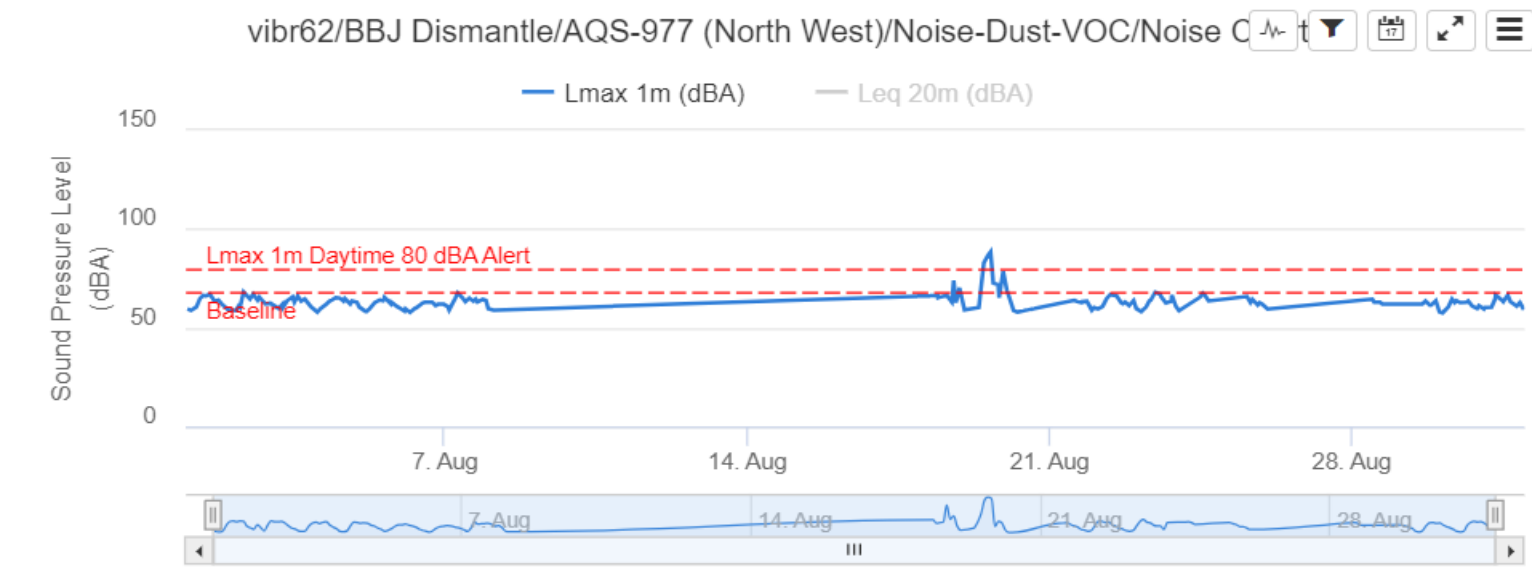
- Note that this monitor was swapped for a new one due to technical issues. The new monitor for this location is AQS #997. This data is shown below.



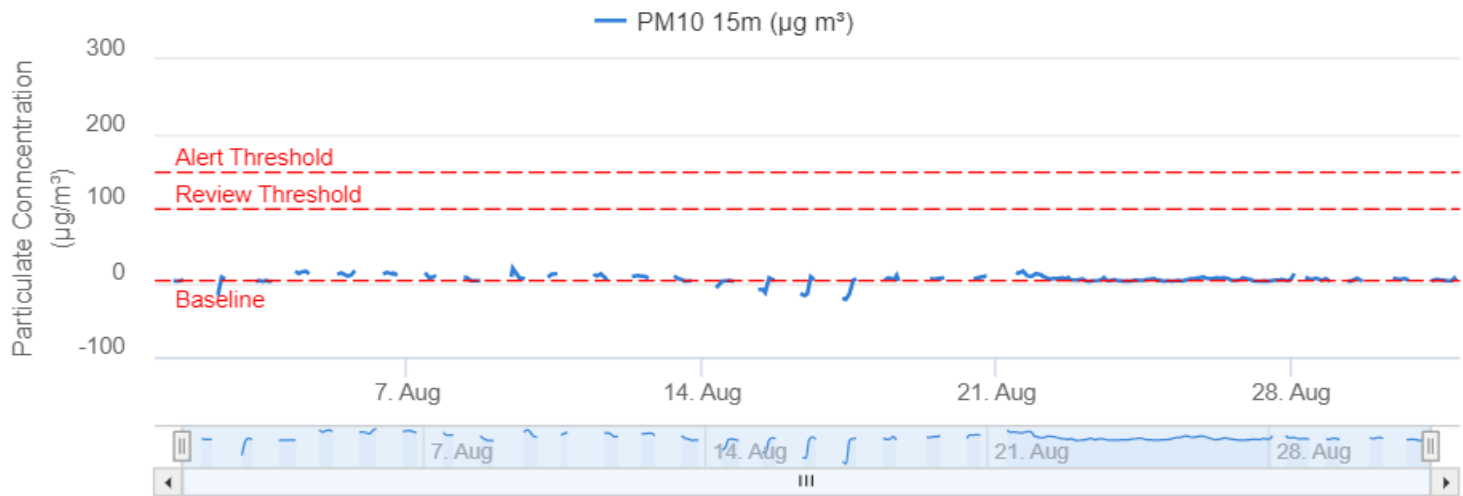
Air Quality Systems #977 – Dust Monitoring Station – August 23:



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

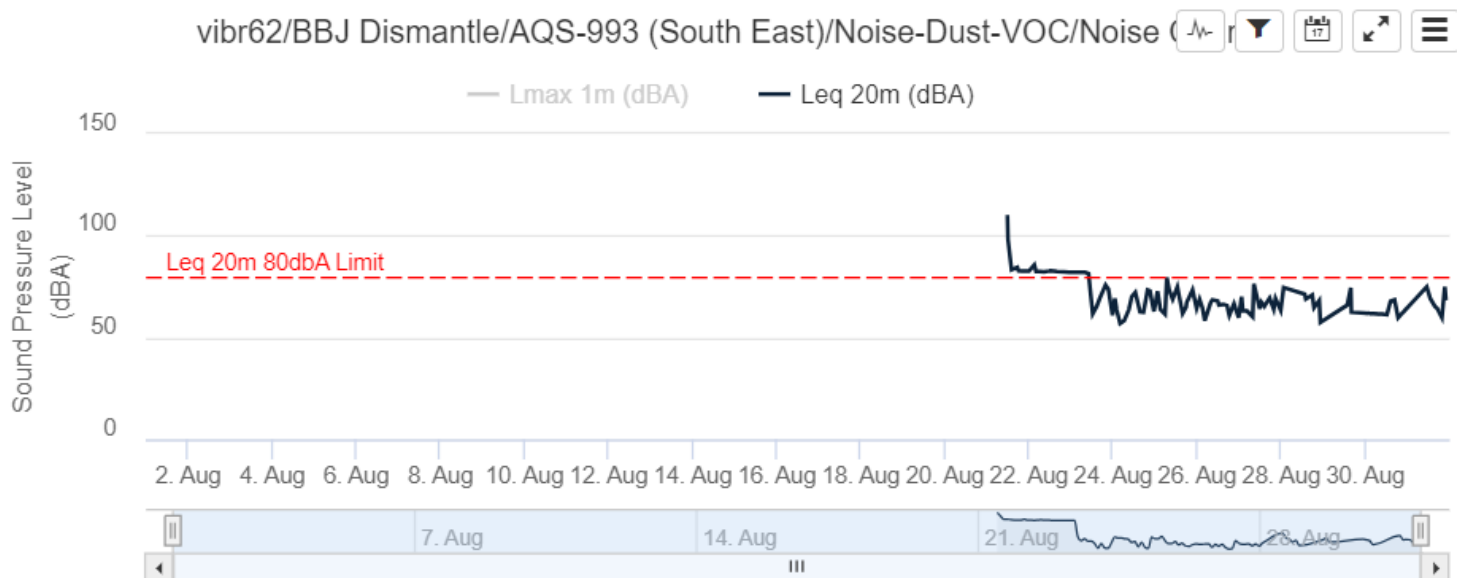


Air Quality Systems #993 – Dust Monitoring Station – August 23:



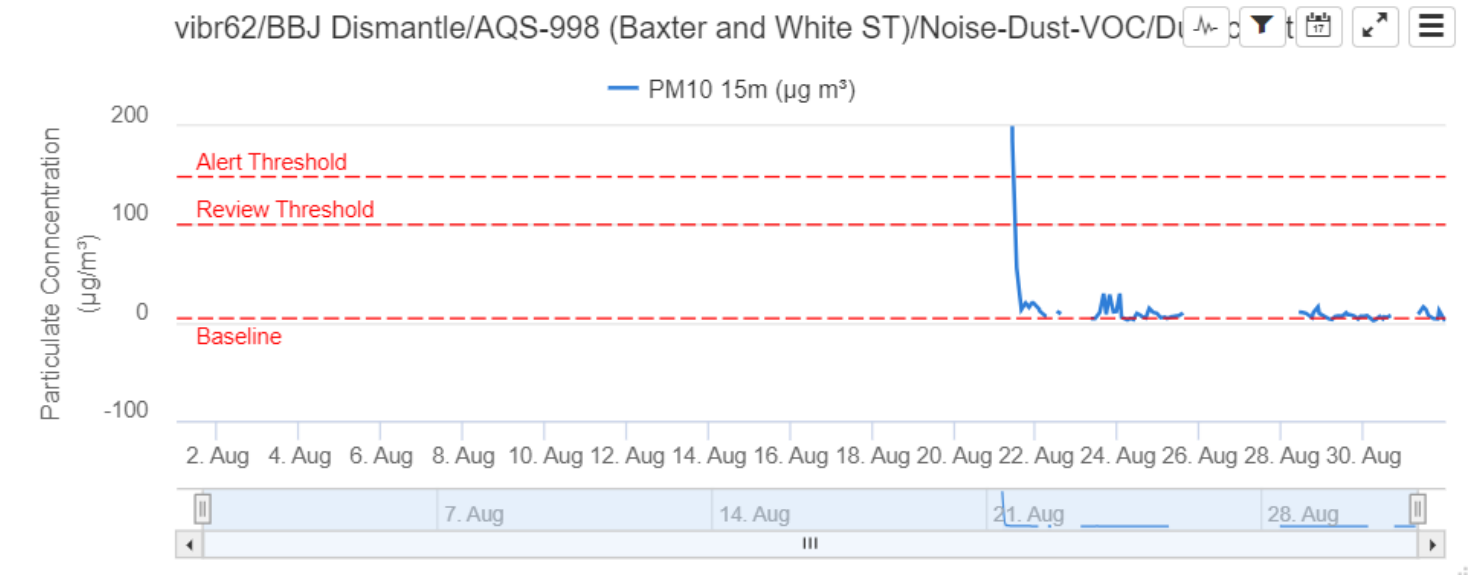
Air Quality Systems #993 – Noise Monitoring Station – August 23:

- Note that this Monitor was running and on for the entire month of August as shown above for the air quality data. However, the speaker for the noise was broken. Since then, Vibranalysis came out and fixed the monitor where you see the data begin and that's why there is that big spike. This Spike was due to installation and maintenance on the monitor.



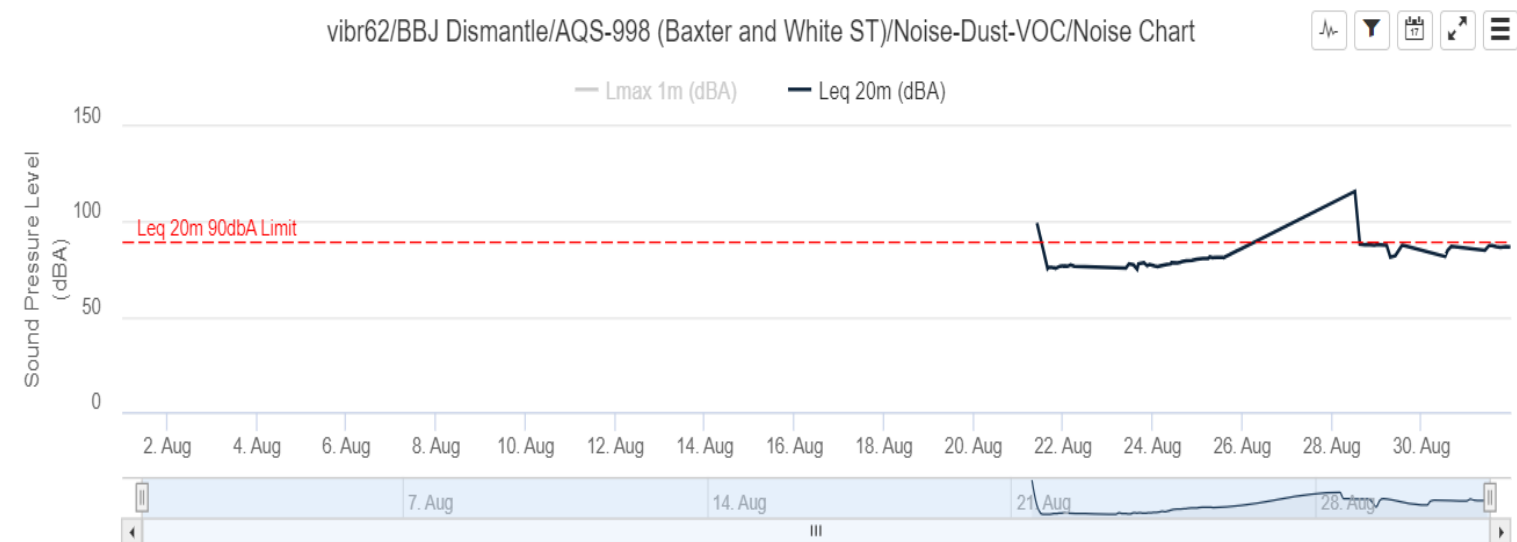
Air Quality Systems #998 – Dust Monitoring Station – August 23:

- Note that the gap in the data is from when we took this monitor out from our site and had it relocated directly on Baxter Street in front of the residences to get more accurate noise/air quality data for them.



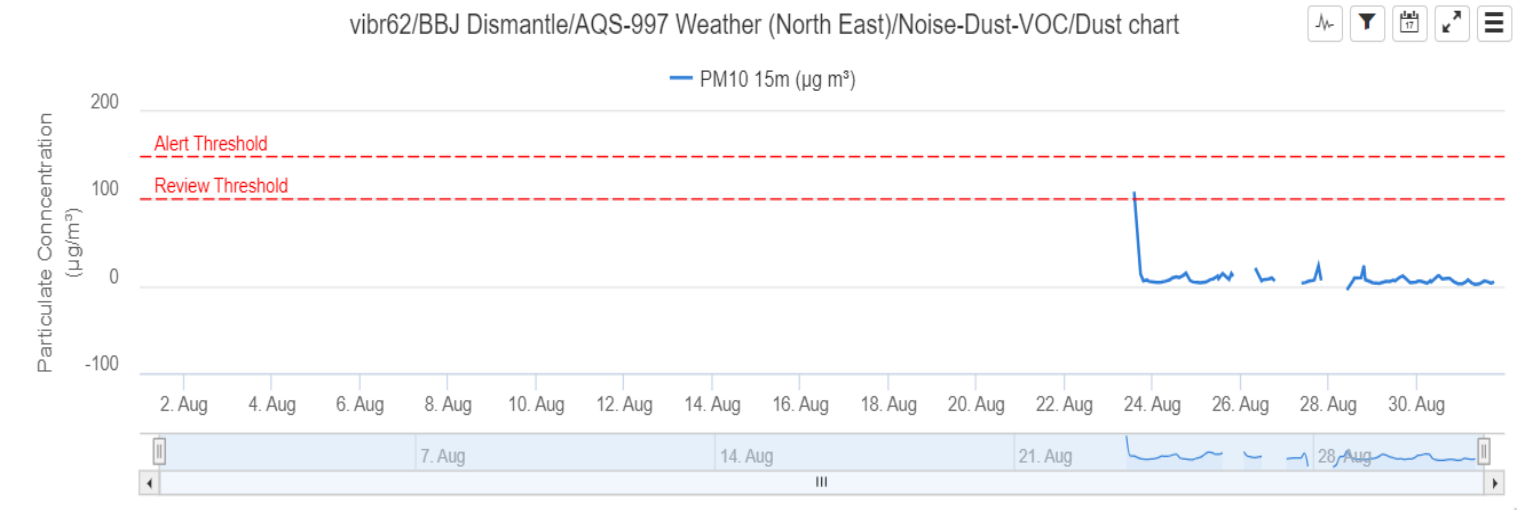
Air Quality Systems #998 – Noise Monitoring Station – August 23:

- Note that the gap in the data is from when we took this monitor out from our site and had it relocated directly on Baxter Street in front of the residences to get more accurate noise/air quality data for them.



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

- Please note that this is the monitor that took the place of AQS #973 as stated above.



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

- Please note that this is the monitor that took the place of AQS #973 as stated above.

