T: 978.794.0336



September 21, 2022

Town of New Bedford Conservation Commission c/o Chancery Perks, Conservation Agent 133 William Street, Room 312 New Bedford, MA 02740

Re: Remedial Activities – Former Aerovox Facility

Notice of Intent (File No. SE49-0862), Modified Restoration Plan

Dear Chance and Members of the Commission:

Per Special Condition No. 22 of the March 8, 2021 Order of Conditions issued by the New Bedford Conservation Commission (the Commission), please find the enclosed Notice of Intent Modification technical memorandum, including revised site plans, associated with the Remedial Activities of the Former Aerovox Facility in New Bedford, Massachusetts.

As described in the technical memorandum, the restoration plans for both the former Aerovox portion, and the Titleist portion of the project Site are being modified based on recent discussions between KAVX, the City of New Bedford and the U.S. Environmental Protection Agency. This proposed modification does not include any changes to temporary impacts to wetland resource areas regulated under the Massachusetts Wetlands Protection Act as previously presented to the Commission.

Should you have any questions or need further information, please contact either of the undersigned at 978-983-2055 or 978-983-2056, respectively.

Very truly yours,
Brown and Caldwell

Marilyn Wade, P.E., LSP Managing Engineer Elizabeth W. Wilson Principal Scientist

Elizabeth W. Wilson

EW/mw

cc: Jim Zemak, KAVX Corporation

Michele Paul, City of New Bedford, Director of Resilience and Environmental Stewardship

Angela Gallagher, Massachusetts Department of Environmental Protection David Dickerson, U.S. Environmental Protection Agency



Technical Memorandum

One Tech Drive, Suite 310 Andover, MA 01810-2435

T: 978.794.0336

Prepared for: AVX Corporation

Project Title: Aerovox Remedy Design Build

Project No.: 155041

Technical Memorandum

Subject: Aerovox Project Shoreline Restoration Modification #2

Date: September 21, 2022

To: New Bedford Conservation Commission

From: Marilyn Wade, PE, LSP

Copy to: Jim Zemak, Kyocera AVX (KAVX) Corporation

Chris Hughes, Kyocera AVX (KAVX) Corporation

Prepared by:

Elizabeth W. Wilson, Permitting Lead

godith Fr. Waii

Reviewed by:

Judith LeClair, Assistant Project Manager

Limitations:

This document was prepared solely for KAVX Corporation in accordance with professional standards at the time the services were performed and in accordance with the contract between KAVX Corporation and Brown and Caldwell dated August 20, 2020. This document is governed by the specific scope of work authorized by KAVX Corporation; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by KAVX Corporation and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

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Section 1: Introduction

A Notice of Intent was submitted to the New Bedford Conservation Commission (Commission) in December 2020 by AVX Corporation (AVX), now Kyocera AVX Corporation (KAVX), for the Comprehensive Response Actions (CRAs) associated with the Former Aerovox Facility Disposal Site (the Site), identified as Release Tracking Number 4-0601 by the Massachusetts Department of Environmental Protection (MassDEP). The Former Aerovox Facility is located at 740 Belleville Avenue, and includes the Former Aerovox Property (Aerovox), the southern abutting property at 700 Belleville Avenue (Titleist) and the northern abutting property at 744 Belleville Avenue (Precix). Together, there are four identified Operable Units (OUs) for the Site, including: OU1 – Titleist; OU2 – Precix; OU3 – Aerovox Overburden Soils and Groundwater; and OU4 – Aerovox Bedrock Groundwater.

The CRAs for the OUs include the following:

- OU1: The current and future risk associated with PCBs in the uncapped soils between the ground surface and an identified peat layer on the east end of the Titleist property (OU1);
- OU2: Potential foreseeable future vapor intrusion risk associated with chlorinated volatile organic compounds (CVOCs) contaminated groundwater in shallow overburden in Graham Street adjacent to the Precix building (OU2);
- OU3: Potential future contact with overburden soil above upper concentration limits (UCLs), migration of deep overburden groundwater contamination to the river and migration of contamination to the river through on-site storm sewers (collectively, OU3); and
- OU4: Migration of bedrock contamination (including zones of contamination above the UCLs) across the east half of the Property to the river (OU4).

This Tech Memo serves to notify the Commission of changes to the ongoing restoration activities for the OU1 and OU3 design and is in response to discussions with the United States Environmental Protection Agency (USEPA) related to the Aerovox Property and Titleist Property restoration designs submitted as part of the July 10, 2020 Remedy Implementation Plan (Phase IV RIP) and subsequent permit applications. This restoration design modification includes no changes to the temporary impacts to wetland resource areas regulated under the Massachusetts Wetland Protection Act from the OU1 and OU3 remedy implementation discussed in the December 2020 NOI package as approved under the Order of Conditions (OOC No. SE49-0862) issued March 8, 2021 and modified in July 2021 (first modification). This change from the July 2021 modified NOI submittal (second modification) is relative to the restoration design of the Aerovox shoreline area, the Titleist shoreline, and subsequent monitoring and maintenance of restored areas.

Section 2: Design Modification Background

The pre-remedy implementation condition of the Aerovox shoreline was bituminous asphalt pavement (part of a shoreline cap) from the western to the eastern boundary of the defined site, which is an existing sheet pile wall. The shoreline cap and sheet pile wall were installed in 1989 as a containment measure for shallow contaminated soils with the intent of preventing further migration of contaminants from the site to the Acushnet River.

Initially, the remedy consisted of replacement of the existing conditions (pavement cap) in kind to meet the requirements of the Toxic Substances Control Act (TSCA) Determination issued for the Site by the USEPA. Based on subsequent discussions between the City of New Bedford (CNB) as owner of the Property, MassDEP, and USEPA, the Aerovox shoreline restoration approach was revised to reflect a living shoreline



that would fit with the construction of the planned "Riverwalk" project. Accordingly, the restoration contained within the original submitted NOI drawings, included lowering grades immediately along the shoreline and construction of salt marsh and riparian habitats. Modification #1 was subsequently submitted and accepted in July 2021 to address EPA's requirement to retain the full sheet pile wall on the Aerovox property and avoid disturbance or modification of EPA's sediment cap east of the sheet pile, which made a lower finished elevation, connectivity with tide cycles and shoreline marsh and buffer planting infeasible. The shoreline restoration modification #1 approved by CNB in July 2021 included backfilling of all shoreline excavation areas to approximate pre-construction grades and maintaining the sheet pile wall and existing storm water conveyances, with the shoreline marsh plantings replaced with riparian seeding. During Year 2 construction (spring and summer 2022), the Titleist and Aerovox shoreline areas were backfilled to within 0.5 feet of the final finished grades with clean backfill, and topsoil is being placed to final finished grade in September 2022. Seeding of the Titleist riparian areas with the New England Coastal Salt Tolerant Grass Mix from New England Wetland Plants, Inc. and winter rye or equivalent is complete and seeding of the Aerovox riparian area is scheduled to take place in October 2022. As discussed further below, shoreline restoration modification #2 will provide for additional plantings along the riparian portion of the Aerovox shoreline. Restoration of salt marsh areas (previously scheduled for the April to June 2023 planting window) and planting of trees and shrubs on the Titleist Property will not be completed under this Order of Conditions based discussions with the EPA (see next section for detail).

Refer to Attachment A for a copy of USEPA's letter to BC, MassDEP and CNB outlining EPA's commitment to shoreline restoration and monitoring on the Titleist property and their concurrence related to relocation of the original planned Titleist property shrub and tree plantings to the Aerovox property.

Refer to Attachment B for the revised versions of Construction Drawings C-319 and C-205 showing the modified restoration plans for the Aerovox and Titleist properties, respectively.

Section 3: Description of Modification

As noted in the USEPA letter (Attachment A), the USEPA has secured funding through the Bipartisan Infrastructure Law to complete the remaining shoreline and intertidal remediation within the New Bedford Harbor Superfund Site. As part of this work, remediation along the Titleist shoreline will be performed by Superfund contractors in August 2023, and these operations would destroy the salt marsh restoration areas designed and approved under Order of Conditions SAE-SE49-0862. Superfund excavations on the harbor side of the mean high-water line will be backfilled with clean topsoil and all construction related areas will be restored with native shrubs, trees and seed mix as appropriate for the riparian and salt marsh areas per USEPA's restoration plan. Superfund contractors will also monitor and maintain all restored intertidal areas, including along the Titleist shoreline for a period of five (5) years.

As a result of the USEPA proceeding with remedial activities within the New Bedford Harbor, this proposed modification includes the following changes to site restoration and monitoring:

- The lower marsh and upper marsh plants and riparian shrubs and trees will not be planted within
 the riparian and marsh zones at Titleist in 2022 and 2023. The riparian seed mix, already spread
 and protected on Titleist, will provide temporary stabilization until the USEPA performs remedial activities in August 2023.
- The riparian shrubs and trees designated for the shoreline Titleist Property restoration areas and approved in the March 8, 2021 Order of Conditions will be moved to and planted at the Aerovox Property with some modifications. Note that the number of shrub plantings are based on the available square footage of riparian area on the Aerovox Property. The original quantity included in the NOI (85 of each shrub type) for the Titleist Property was based on assumed riparian width and



square footage; however, after removing the debris and rubble along the Titleist shoreline, the actual native slope was steeper, with elevations corresponding to less riparian area and more upper marsh. This resulted in approximately 18 of each shrub type to be planted on the Aerovox property to maintain the same density of planting, and it is this quantity that will be relocated to Aerovox. The revised plan for the Aerovox and Titleist plantings are shown in Attachment B and reflect the following:

- Trees: one cedar and one maple will still be planted at the Titleist Property (upland and outside of EPA's impact zone)
- Remaining trees: 5 each of maple, cedar and black cherry, will be planted in the locations on the Aerovox Property as shown on the attached plan.
- Riparian buffer shrubs: 18 of each of the four species (72 total) will be planted in the hatched areas as shown on the attached plan, at a spacing of approximately 6 feet on center with total quantity of shrubs provided per shrub planting area.
- This modification also proposes to remove marsh elder from the shrub list and replace it
 with northern bayberry. Based on elevation differences between the Titleist and Aerovox
 Properties, the marsh elder will not thrive as well as the northern bayberry with the sheet
 pile wall restricting daily tidal influx providing more regular soil moisture that this shrub
 requires.
- For maintenance and survivability reasons, shrubs will not be planted in close proximity (within 3 to 5 feet) to the sheet pile wall, the monitoring wells, the geogrid fabric or the stormwater structures.
- Three years of Monitoring and Maintenance activities at the restoration area on the Aerovox Property are already regulated under the Order of Conditions and is the responsibility of KAVX. This proposed modification simply adds an increase in maintenance for the additional proposed plantings.
- Marsh plug planting, and riparian planting (other than the seeding presently installed) and monitoring and maintenance activities on the Titleist Property for a period of five years will no longer be the
 responsibility of KAVX. Rather, the USEPA has committed in writing that following the completion of
 remedial activities, restoration will be completed by the Superfund contractor. USEPA will be responsible for monitoring and maintenance of the Titleist shoreline for the five-year post-restoration
 period.

Section 4: Conclusion

BC understands that the optimal time for restoration of the Aerovox and Titleist Property shorelines to a more natural estuarine habitat will be when EPA completes removal of the shoreline cap, contaminated sediment, and sheet pile wall. In the interim, shoreline shrub and tree plantings are retained and relocated. Based on discussions with USEPA, this modification of the post-remediation restoration plan aligns with the USEPA remedial work and does not alter the project's temporary impact on jurisdictional resources areas.

Attachment A: Regulatory Comments

David Dickerson (EPA) Letter, September 2, 2022





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1 5 Post Office Square, Suite 100 Boston, MA 02109-3912

September 2, 2022

Marilyn Wade Aerovox 21E Site Project Manager Brown and Caldwell One Tech Drive Suite 310 Andover, MA 01810

Re: Relocation of restoration shrubs and trees from Titleist shoreline to Aerovox shoreline.

Sent via email (MWade@Brwn.Cald.com)

Dear Ms. Wade,

Following up from our discussion yesterday, this serves to update all parties regarding the timing and scope of Superfund remediation at the Titleist shoreline (parcel 112-133), immediately south of the Aerovox shoreline in New Bedford.

EPA now has BIL (Bipartisan Infrastructure Law) funds in hand to complete all remaining shoreline/intertidal remediation zones at the New Bedford Harbor Site. Superfund contractors just mobilized for East Zone 2 and 3 in Acushnet earlier this week, and we plan to mobilize for West Zone 2 and 3 (which includes the Titleist parcel) in August 2023.

In order to accomplish the West Zone 2 and 3 remediation, construction of a temporary gravel access road will be necessary at the top of bank along the Acushnet River. Superfund contractors will be using a fleet of various large equipment to excavate, transport, backfill and restore the PCB-impacted intertidal areas seaward of the toe of bank using this access road. We have been concerned that these operations would totally decimate the Titleist shoreline restoration plantings as currently required per the state's 21E Aerovox site remediation. EPA would thus support a permit modification(s) involving relocation of these plantings to the recently remediated Aerovox shoreline.

Once the Superfund excavations are backfilled with clean topsoil, all construction-impacted areas (including access roads and staging areas) will be restored with native shrubs, trees and seed mix appropriate for the riparian setting. The initial restoration plan can be found in the August 2019 West Zone 2 and 3 Work Plan at this link:

https://semspub.epa.gov/work/01/100014733.pdf

See Figure 7-1a of this Work Plan for the Titleist shoreline (p.29 of 92 of the on-line pdf). Please note that a supplemental restoration plan will also be developed, once the actual/as-built locations of all access roads and staging areas are known. Once all restoration plantings have been installed, Superfund contractors will monitor and maintain all restored intertidal areas, including along the Titleist shoreline, for five years.

In our discussions on this you had mentioned that the SE corner of the Aerovox shoreline may be the only area of the Aerovox parcel that gets frequent tidal inundation. In that case this SE area would be an appropriate planting area for high tide bush (*Iva frutescens*) and possibly some high marsh plugs (*Spartina patens*, *Distichlis spicata*) depending on elevation. [At West Zone 4 we use elevation 3.2 to 3.6 NAVD88 for high tide shrub, and 2.2 to 3.2 NAVD88 for high marsh (*S. patens* could go up to 3.6 mixed in with the high tide bush). We've also had some success planting seaside goldenrod (*Solidago sempervirens*) at the high end of the high tide bush range.] And since the vast majority of the 3,000+ high and low marsh (*S. alterniflora*) plugs currently specified for the Titleist shoreline can <u>not</u> be planted at the Aerovox shoreline, due to the stone-armored sediment cap, perhaps the total number of shrubs and trees now being considered for the Aerovox shoreline could be increased accordingly. The currently specified total of 87 shrubs and trees for the Titleist shoreline, if spread evenly over the 5,400 sf planting corridor along the Aerovox parcel shoreline, would result in a somewhat sparse app. 62-ft spacing between plantings.

I hope this helps resolve this issue. Please do not hesitate to contact me at <u>dickerson.dave@epa.gov</u> should you have any questions in this regard.

Sincerely,

DAVID DICKERSON Digitally signed by DAVID DICKERSON
Date: 2022.09.02 11:58:05

Date: 2022.09.02 11:58:0

David Dickerson USEPA – Region I Project Manager New Bedford Harbor Superfund Site

cc (via email):

M. Paul – City of New Bedford A. Gallagher - MassDEP Man Chak Ng – USEPA

Attachment B: Revised Construction Drawings for Aerovox Shoreline Modification

C-205 – Titleist Property Shoreline Restoration Plan

C-319 - Aerovox Shoreline Restoration Planting Plan





