

Alewife Study Group
December 8, 2024

Brian Miller, LSP
CDW Consultants, Inc.
4 California Avenue
Framingham, MA 01701

CC:
Brad S. Nicoll, PE, MBTA
George Kober, PE, MBTA
Joe Rigney, PE – EOR Delve Underground

Comments on Draft Post-Closure Release Abatement Measure Plan
MassDEP Release Tracking Number 3-0000277
Proposed Red Line Hi-Rail Access Tunnel
62 Whittemore Avenue
Cambridge, Massachusetts

Dear Mr. Miller:

We are writing on behalf of the Alewife Study Group (ASG), a City of Cambridge Representative Neighborhood Group, that has been deeply involved with activities and issues at the former W.R Grace site, now IQHQ, as well as Russell Field and nearby areas, since 1995.

ASG is the neighborhood representative for the Activity Use Limitation (AUL) and Public Involvement Plan (PIP) of the former W. R. Grace, now IQHQ, site.

Over the last four years, ASG has engaged extensively with IQHQ, other community groups, and City of Cambridge Councilors and staff, regarding the development and community benefits at the IQHQ site. And, over the last three months, ASG has engaged intensively with the MBTA and the other groups listed above regarding the MBTA's proposed Red Line Hi-Rail access tunnel at Alewife.

ASG supports adding a second Hi-Rail Access Tunnel at the Alewife end of the Red Line to improve subway maintenance and reduce service disruptions.

Concerns with current Draft RAM Plan

However, ASG, many members of the community, and a number of city and state legislators, are very concerned that the Draft RAM Plan does not follow the Cambridge Asbestos Protection Ordinance (CAPO) requirement that disturbance of soil, at asbestos-contaminated sites such as this one, be done within a temporary structure maintained at partial vacuum, with offgas from the evacuation system treated with HEPA filtration (“tent and vent”).

Of particular concern is the top 4 feet of soil, which is largely fill material where the MBTA’s June 2024 sampling showed widespread presence of asbestos fibers. For example, asbestos was detected in 47% of the sampling locations in the top 4 feet of soil.

And, the MBTA’s proposed site is very close to and upwind from the paths and fields at Russell Field, which are used by thousands of youth and adults from the neighborhood, around Cambridge, and beyond. This includes residents from the highest triple Environmental Justice population in the City of Cambridge.

“Tent & Vent” Far More Effective than Misting

A 1989 report by EPA evaluated the effectiveness of 13 categories of commercially available dust and vapor suppression technologies, including misting with water and misting with surfactant solution, as is currently proposed in the Non-Traditional Asbestos Abatement Work Plan (NTAAWP), and self-supporting enclosures under negative pressure with HEPA filtration of blower effluent.

The reported dust suppression efficiency for truck loading operations when surfactant solution spray was used ranged from 62% to 77%, depending on dust particle size range. The report concludes that “self-supporting structures ... provide the most reliable and effective control of off-site

migration of dusts and vapors”: [Dust and Vapor Suppression Technologies for Excavating Contaminated Soil, Quintiri R. Todd, William Beers, William Celenza and Alan Tamm, EPA Contract No. 68-03-3450.](#)

Asbestos fibers, which are often too small to see, can bind to dust. So, if dust is allowed to escape during excavation, it could carry asbestos and expose nearby populations.

This Site meets the Cambridge Asbestos Protection Ordinance (CAPO) criteria for “tenting and venting”

Based on this general understanding, the City of Cambridge enacted the Cambridge Asbestos Protection Ordinance (CAPO) in 1999 to address the unusual hazardous conditions at what was then the W.R. Grace site, now IQHQ, due to asbestos contamination. This ordinance protects public safety by outlining specific requirements for soil disturbance at asbestos contaminated sites that meet any one of three conditions:

- at least one 5% asbestos sample and total mass of asbestos exceeding 20,000 pounds;
- the proposed soil disturbance is extensive, i.e. 20,000 ft. footprint or greater; or
- the proposed soil disturbance is within 500 feet of residences or children’s play areas.

The special requirements outlined in CAPO for such properties include:

- conducting hourly air monitoring for particulate dust and continuous air monitoring for airborne asbestos around the perimeter of the soil-disturbing activity; and
- operation within a structure maintained at partial vacuum, with offgas from the evacuation system treated with HEPA filtration.

Multiple samples in excess of 5% asbestos have been found at the IQHQ site, the estimated quantity of asbestos there is at least an order of magnitude greater than 20,000 pounds; the area of soil disturbance proposed by the MBTA is 0.5 acres, which is in excess of 20,000 square feet; and the proposed Site is well within 500 feet of both residences and

children's play areas. Any one of these would trigger the above special requirements, and so these requirements of CAPO are clearly applicable.

Site's Activity & Use Limitation Requires Accordance with CAPO

The Activity and Use Limitation attached to this site in 2006 forbids any activities which "present greater risk of harm to health, safety, public welfare or the environment," and so requires that the Soil Management Plan, prepared prior to the commencement of any activities that disturb the soil below the existing protective cover, be in accordance with the Cambridge Asbestos Protection Ordinance, if applicable. (As outlined above, CAPO is clearly applicable here.)

Indeed, the Draft RAM Plan specifies: "This work plan does not negate the responsibility of the property owner, the contractor, subcontractors and consultants from complying with all other applicable federal, state and local regulations." (Appendix C, p10, §12.0)

Additional Considerations

- Asbestos doesn't migrate, so testing can't identify where asbestos is, it only lets you know its presence, but not the concentration of nearby locations.
- The MBTA's June 2024 testing showed many locations with asbestos (47% of the sampling locations in the top 4 feet of soil).
- And, based on earlier asbestos sampling on the IQHQ (formerly W.R. Grace) site, we know that other areas nearby had high concentrations of asbestos.
- Even if asbestos hasn't been documented as being released when using misting for dust control at other sites, this particular site is too close to many vulnerable people to not use the best dust control measures available.

CAPO, "Tent & Vent" Successfully Applied by IQHQ

In its own development of this site, IQHQ adhered strictly and successfully to CAPO over a much larger area than the MBTA is proposing to disturb, so the feasibility of CAPO has been demonstrated. IQHQ activities included driving of piles, as well as excavation and regrading of soil within partially evacuated temporary structures, over multiple acres. Throughout the

IQHQ development project, no fugitive emissions of asbestos into the neighborhood have been observed.

CAPO, “Tent & Vent” Successfully Applied by Cambridge –Twice

Also, the City of Cambridge followed the CAPO, with “tenting and venting” on a few locations, where required, when it completely rebuilt Russell Field in the early 2000’s. Members of ASG worked with the City to design, implement, monitor, and analyze the soil sampling and remediation for this project. No fugitive emissions of asbestos into the neighborhood were observed during this project.

And, the City of Cambridge followed the CAPO when undertaking their underground sewer infrastructure project that involved the current IQHQ site, as described in their [RAM Plan: Release Abatement Measure Plan, 62 Whittemore Avenue, Cambridge, MA, CAM 400 Sewer Improvements Project, Release Tracking Number 3-0277, March 10, 2011](#)

ASG Requests to MBTA

For these reasons, it is our position that soil disturbance at the Site must be done in compliance with CAPO, specifically:

- that pile driving be done with adequate wetting of any soil disturbed during the activity, using a surfactant solution as specified in the NTAAMP;
- that excavation or other disturbance of the top four feet of the fill layer, which has been shown to have widespread, significant asbestos contamination, be done within a temporary structure maintained at partial vacuum, with offgas from the evacuation system treated with HEPA filtration;
- that excavation or other disturbance of fill below four feet also be done within a temporary structure, to the extent practicable;
- that any excavation or other disturbance of any unsaturated zone soils below four feet that cannot be done practicably within a temporary structure be done instead with adequate wetting using a surfactant solution; and
- that operation within a temporary structure or wetting of soil are not necessary for excavation or other disturbance of saturated zone native soil.

CAPO requires “hourly air monitoring for particulate dust and continuous air monitoring for airborne asbestos around the perimeter of the soil-disturbing activity,” and that “each Asbestos Soil Management Plan will include a contingency plan for immediate work stoppage in the event that dust standards established in the Asbestos Soil Management Plan are exceeded in any two hourly field tests over a 24-hour period.” However, we believe the air monitoring protocol outlined in the NTAAWP would be adequate if soil disturbance is done as described in the paragraph above, based on the protectiveness observed during the IQHQ site development.

We recognize that the risk of fugitive dust and asbestos mobilization is minimal when excavating native soil in the saturated zone. Nevertheless, we would request that some air monitoring for asbestos be continued even after all of the fill material has been removed from the work zone.

IQHQ’s LSP and construction managers now have extensive experience with how to use these methods on this site. We encourage the MBTA to continue to consult with IQHQ’s LSP, construction managers, and relevant contractors about best practices for safely and effectively using “tent and venting” for fill soil remediation.

Thank you for considering our comments. Please contact us with questions, or if it would be helpful to discuss any of the issues represented in these comments.

Sincerely,

For the Alewife Study Group,

David Bass, ScD, CHMM (retired)

Joel Nogic, former Massachusetts Licensed Construction Supervisor