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Naturally Occurring Asbestos in Bayview Hunters Point

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • February 2010

In response to community concerns, EPA performed a study on potential health effects related to asbestos releases from development work on Parcel A of the former Hunters Point Shipyard. This fact sheet provides an overview of the **Draft Technical Summary of EPA's Analysis of Hunters Point Air Monitoring Filters for Asbestos**.

Background on the Asbestos Dust Mitigation Plan

The City of San Francisco and its developer are redeveloping Hunters Point Shipyard Parcel A. This portion of the Hunters Point Shipyard Superfund Site was removed from the Superfund listing and transferred to the City after the Navy completed cleanup to levels allowing unrestricted use. The Bayview neighborhood, like many other parts of San Francisco and California, has serpentinite soil, which is a source of naturally occurring asbestos. Previous studies by EPA and others have shown that activities which disturb serpentinite soil may release asbestos. As a result, the California Air Resources Board (CARB) has implemented regulations which require developers of large construction projects in areas with naturally occurring asbestos to comply with an Asbestos Dust Mitigation Plan (ADMP)¹ that has been approved by the local air district. EPA has a fact sheet (http://www.epa.gov/superfund/health/contaminants/asbestos/noa_factsheet.pdf) which describes how individuals can manage their personal exposure to naturally occurring asbestos.

The ADMP for the Parcel A project requires dust control measures such as wetting the soil, covering truck loads and street sweeping. The Bay Area Air Quality Control Management District (Air District) performs daily inspections to enforce the dust mitigation requirements. In addition, there are nine air monitors on and around the site as part of the ADMP (see figure reverse side). The City

also collects data from a tenth monitor, HV-12, but this monitor is not included as part of the ADMP because its results appear to be unrelated to construction activity. The Air District established an asbestos air concentration level in the ADMP, called the trigger level, as a way to help decrease the average level of airborne asbestos. This concentration is not a legal standard, and monitor readings exceeding the trigger level are not considered violations as long as the developer stops work until readings from all monitors are below the trigger level.

Meeting announcement:

A community meeting to discuss EPA's report with an independent technical advisor and representatives from EPA will be held:
Tuesday, March 2, 2010, 6 p.m. - 8 p.m.
Alex Pitcher Room, SE Community Center,
1800 Oakdale Ave, San Francisco

Measurement Methods for Asbestos

The original health studies on asbestos (conducted several decades ago) were based on measurements that could only count long asbestos fibers. Since these studies were completed, better techniques have become available with electron microscopes that can count both long and short fibers. The California Air Resources Board requires local air districts to count total fibers and then apply a correction factor to indirectly estimate the number of long fibers. EPA uses a method that specifically counts the long fibers in addition to total fibers. CARB's method and EPA's method also have significant differences in how individual fibers or bunches of fibers are characterized and totaled. Thus, results from the two methods cannot be directly compared.

For EPA's study, EPA reviewed the existing Air District data and re-analyzed filters from air monitors at Hunters Point to evaluate the effectiveness of the Air District oversight of construction and the potential exposure level to asbestos.

Regarding the S.F. Chronicle Article, "EPA Report: Shipyard Project Minimizing Dust"

A news article appeared in the San Francisco Chronicle on January 5, 2010 which cited the "Draft Technical Summary of EPA's Analysis of Hunters Point Air Monitoring Filters for Asbestos" that will be discussed as part of the community meeting referred to in this fact sheet. EPA did not release the draft to the San Francisco Chronicle and was not contacted by the staff writer for input. The conclusions of the draft Summary are preliminary. EPA will not finalize the report until community members have had an opportunity to review and comment on the document with the assistance of a technical advisor.

1. The Lennar HPS Parcel-A ADMP, dated August 2009, is available at http://community-plan.net/tasc_bayviewhunterspoint. It includes 14 new dust prevention measures and the addition of four community monitors over a previous version of the ADMP.

Comparison of Results

EPA commissioned a re-analysis of 34 filters using both the CARB and EPA methods. At least one filter was selected from every monitor and the filters were chosen to represent primarily the highest results from the original CARB measurements over the time period between December 2008 and August 2009.

The results and conclusions of the analysis are as follows:

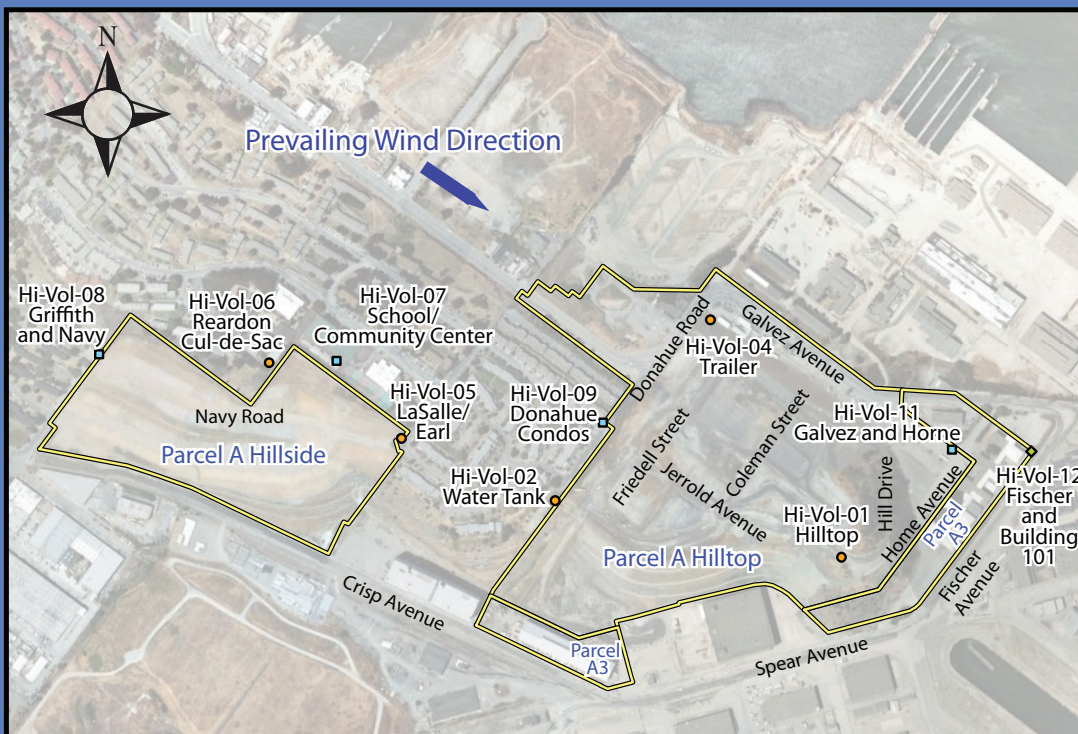
- The Air District calculated that the potential risk of getting an asbestos-related disease from being exposed to the concentrations measured at any of the monitors continuously over 70 years is approximately one-in-a-million. This result is at the low end of what EPA considers to be the acceptable risk range.
- Seventy-four percent of the re-analyzed filters did not have any detectable long fibers (original health studies correlate health risk with long fibers) even though the CARB results for a majority of these filters were above the trigger level.
- EPA did not perform a risk assessment using the new data because so few of the filters had detectable levels of long fibers.
- Overall the CARB measurements result in more work stoppages and thus the CARB method provides a more conservative measure for dust mitigation at this site than the EPA method.

EPA concludes that the implementation and enforcement of the Asbestos Dust Mitigation Plan are effectively minimizing dust asbestos exposure and that the Air District project oversight is appropriate.

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HUNTERS POINT NAVAL SHIPYARD ASBESTOS MONITORING LOCATIONS ON PARCEL A

Legend	
Air Monitoring Location	
●	Air District Required Monitoring Location
■	Community Asbestos Monitoring Location
◆	Community Asbestos Monitoring Location Results do not trigger work shutdown
◇	Former Community Asbestos Monitoring Location
□	Parcel Boundary

