



SECTION 02 60 00

AIR POLLUTION AND SOIL MANAGEMENT PLAN

**SAN DIEGO AFFORDABLE HOUSING PROJECT
FORMER SAN DIEGO TRANSAMERICA BUILDING (804)
1301 STATE STREET
SAN DIEGO, CALIFORNIA 92101**

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1.0 PROJECT BACKGROUND

1.1 INTRODUCTION

On behalf of the Department of General Services (DGS), Real Estate Services, and APTIM, Client of DGS, Titan Environmental Solutions, Inc. (TES) has prepared this Air Pollution and Soil Management Plan for the San Diego Affordable Housing Project. The Project area consists of the Former San Diego Transamerica Building (804), located at 1301 State Street, San Diego, California 92101 (referred to as the Subject Property). TES understands that the proposed development project will include the demolition of Subject Property.

Due to the historical land use of the Subject Property, it is plausible that soil impacted by previous activities may still be present and could potentially be uncovered during the course of demolition and excavation operations. This Air Pollution and Soil Management Plan (APSMP) includes real-time monitoring of various airborne contaminants such as asbestos, lead, mercury, polychlorinated biphenyls, total petroleum hydrocarbons and particulate matter. Additionally, it details the procedures to be adhered to when engaging in earthwork activities, including the proper identification, excavation, transportation, and disposal of contaminated soil that may be encountered during these operations.

The primary objective of the APSMP is to ensure the safety and well-being of the surrounding community, which includes off-site receptors such as residences and businesses, as well as on-site workers who are not directly involved in the subject work activities. This protective measure is essential to prevent potential releases of airborne contaminants, which may occur during construction and demolition work activities, as well as during monitoring procedures. The APSMP is equipped with action levels that trigger heightened monitoring, necessitate corrective actions to mitigate emissions, and, in extreme cases, mandate work stoppage. Additionally, this plan serves the crucial purpose of confirming that work activities do not facilitate the spread of contamination beyond the work site via airborne pathways.

1.2 SITE LOCATIONS

The Site include the following impacted areas:

1. The Former San Diego Transamerica Building (804), located at 1301 State Street,



San Diego, California 92101, is a two (2)-story office building constructed on a slab foundation. The building is primarily constructed with concrete masonry unit (CMU) that are finished with exterior stucco materials.

1.3 SCOPE OF WORK

The primary aim of the APSMP is to oversee and monitor the potential off-site dispersion of airborne contaminants while building demolition operations are underway. The APSMP is designed to fulfill various objectives, including safeguarding both human health and environment, assessing dust generation, gauging the efficiency of dust suppression measures, and maintaining a record of air quality throughout the demolition activities, particularly in neighboring communities and areas with vulnerable populations.

The scope of work for the APSMP includes a range of activities, with the initial step being:

1. Develop and implement an Air Pollution and Soil Management Plan (APSMP).



2.0 AIR POLLUTION AND SOIL MANAGEMENT PLAN OVERVIEW

2.1 PROGRAM OBJECTIVE

There are four (4) primary objectives of this APSMP:

1. Safeguard human health and the environment.
2. Prevent the dispersion of asbestos, lead, mercury, PCBs, TPH in the gasoline range (TPH-g), diesel range (TPH-d), and oil range (TPH-o) contaminant into the surrounding soil during the demolition and excavation process.
3. Evaluate the effectiveness of dust suppression controls and determine when additional controls are required.
4. Details the procedures to be adhered to when engaging in earthwork activities.
5. Document air quality during demolition and excavation activities.

2.2 POTENTIAL CONTAMINANTS OF CONCERN

This section describes the potential contaminants of concern that may be encountered in soil during the demolition activities at the Subject Property. Based on the review of the Phase 1 Environmental Site Assessment, prepared by AVOCET Environmental, Inc., dated May 22, 2020, petroleum hydrocarbons and solvents related to vehicle maintenance were likely to have been used at the site. Additionally, asbestos, lead, and PCBs are contaminants of concern.

2.3 PROGRAM OVERVIEW

The monitoring activities stipulated in this APSMP will be executed as detailed below:

- The first phase of sampling will establish baseline or background concentrations at the site locations prior to demolition activities. Baseline conditions will be determined utilizing real-time data for particulate matter (PM) and laboratory data for asbestos, lead, mercury, PCBs and TPHs, which shall be collected at least two (2) days before the start of work. During establishment of baseline conditions, dust monitoring stations will be set up and visual inspections will be performed. This information will be used to place dust control equipment in locations that will be the most effective in stopping generated dust conditions.
- The second phase of sampling will be conducted during the daily



construction/demolition tasks to document ambient air conditions at the site perimeter and to compare these conditions to the established action level criteria determined for the site. This will include daily real-time air sample collection for the documentation of conditions at the property boundary during demolition activities and laboratory data for asbestos, lead, mercury, PCBs and TPHs.

Real-time particulate matter (dust) data shall be collected from the four cardinal directions including one (1) sampling point upwind of the site location and one (1) sampling point downwind of the site location.

The location and number of the monitoring locations may change from day to day depending on site activities and meteorological conditions. During activities, sampling points may provide coverage for more than one (1) of the criteria listed above (i.e. a single sampling point may be used for monitoring the east side of the building and the downwind sampling point).

Dust monitoring will be conducted utilizing direct reading aerosol (particulate matter) equipment capable of continuous air flow monitoring. As described herein, ambient air samples will also be collected downwind of demolition activities and analyzed for asbestos and heavy metals including but not limited to lead and mercury, and PCBs, and soil samples to be analyzed for asbestos, heavy metals, PCBs and TPHs. Additionally, meteorological parameters consisting of wind speed, wind direction, temperature and relative humidity will be monitored.

Based on regulatory guidance and Division of Occupational Safety and Health of California (Cal/OSHA)'s time-weighted average (TWA) Permissible Exposure Limits (PELs) and consensus guidance of the National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limits (RELs), perimeter air quality Action Levels (AL) for Particulate Matter, Asbestos and Heavy Metals are summarized in Table 2-1 below:



Table 2-1				
Perimeter Action Levels for Airborne Particulate Matter, Asbestos, Lead, Mercury, Oil Mist and PCBs				
	Particulate Matter	Asbestos	Heavy Metals	PCBs and Oil Mist
Activity	During Demolition and Excavation Activities			
Action Level	50 µg/m³ greater than background (30 min. avg.) for earth moving of less than 50 cubic yards, OR 25 µg/m³ greater than background (30 min. avg.) for earth moving of equal to or more than 50 cubic yards, OR Persistent visible fugitive dust is leaving the site.	The Action Levels for Asbestos, Lead, Mercury, PCBs and Oil Mist: - Asbestos = 0.01 f/cc - PCBs = 50 µg/m³ - Mercury = 2.5 µg/m³ - Lead = 3.0 µg/m³ - Oil Mist = 500 µg/m³		
Response	If the action level concentration is reached downwind, confirm background level. If the working site particulate exceeds the action level, implement dust suppression techniques.			
Stop Work Limit	50 µg/m³ greater than background (30 min. avg.) for earth moving of less than 50 cubic yards, OR 25 µg/m³ greater than background (30 min. avg.) for earth moving of equal to or more than 50 cubic yards, OR persistent visible fugitive dust is leaving the site.	The stop work Actions Levels are as follows: - Asbestos = 0.01 f/cc - PCBs = 50 µg/m³ - Mercury = 2.5 µg/m³ - Lead = 3.0 µg/m³ - Oil Mist = 500 µg/m³ Action Levels and suppression techniques shall be reviewed if analytical results exceed these levels.		
Sampling Period	30 minutes average	8 hours minimum		
Sampling Method	TSI DustTrak DRX Aerosol Monitor 8533	Integrating Asbestos Air Sampling in	Integrating Metals Air Sampling in	Integrating PCBs and Oil Mist Air



		Accordance with NIOSH Methods	Accordance with NIOSH and OSHA Methods	Sampling in Accordance with NIOSH Method
Location	Up wind and downwind locations, if different than the fixed monitoring points.	Downwind locations, determined based on wind direction.		
Frequency	Continuously during all demolition and excavation activities.	Asbestos, Lead, Mercury, Oil Mist and PCBs shall be sampled during the beginning of demolition activities and at the onset of each significantly different activity until three days' sample results are returned. If results for the same site location are below the Action Levels, sampling will be suspended.		
¹ Safety Factor of 10 Applied to OSHA Permissible Exposure Limits as Community Protection Factor				



3.0 DEMOLITION AIR CONTAMINANTS OF INTEREST

Demolition and removal activities at the property located at 1301 State Street, San Diego, CA, may pose health hazards to people in the vicinity and at off-site locations due to the inhalation of airborne particulates (dust) Contaminants of Interest (COI). The COIs specific to this site's demolition and excavation include asbestos, lead, mercury, oil mist, particulate matter (PM) and PCBs. These contaminants and their potential impacts are further discussed below.

3.1 ASBESTOS

Asbestos, due to its versatility, heat resistance, tensile strength, and insulating properties was used in most construction and building materials, including adhesives, insulation, tar paper and tiles. The United States Environmental Protection Agency (EPA) defines asbestos containing materials (ACM) as building materials containing greater than 1% asbestos, and Cal/OSHA defines asbestos containing construction materials (ACCM) as construction materials containing greater than 0.1% asbestos.

Cal/OSHA regulates occupational exposure to asbestos and has established regulations for the control of asbestos hazards. Furthermore, Cal/OSHA established a Permissible Exposure Limit (PEL) of 0.1 fiber per cubic centimeter of air (f/cc) for 8-hours' time weighted average (TWA) exposures. To apply this exposure limit for community protection, a safety factor of 10 is applied to lower it to 0.01 f/cc.

3.2 LEAD AND MERCURY

Lead and mercury toxicity are varied and include cancers, gastrointestinal disease, blood forming organs toxicity, reproductive system developmental toxicity, skeletal system toxicity and osteoporosis, nervous system toxicity, cardiovascular system toxicity, dermal toxicity, renal and liver damage, and other diseases.

Cal/OSHA regulates heavy metals including arsenic (inorganic), cadmium, chromium, mercury and lead and has established regulations controlling occupational exposures to these metals. Furthermore, Cal/OSHA established PELs for these metals for workers' protection purposes. To apply these exposure limits for community protection, a safety factor of 10 is applied to lower it.

Lead and mercury in the particulate form enter the body primarily by inhalation and to a lesser degree by ingestion. Airborne lead and mercury concentrations are dependent on



the concentrations of these metals in the building materials that will be damaged during building demolition, the concentration of airborne dust carrying these metals into the air and wind speed.

The Cal/OSHA permissible exposure limits (PELs) for inorganic metallic and particulate lead are the Action Level of 30 $\mu\text{g}/\text{m}^3$ and PEL of 50 $\mu\text{g}/\text{m}^3$, and the PEL for inorganic metallic vapor and particulate mercury is 25 $\mu\text{g}/\text{m}^3$.

3.3 PARTICULATE MATTER

Airborne particulate matter and dust levels depend on the degree of moisture in the dust surface, the level of released dust into the air and wind speed. It includes particulate matter (PM) particle aerodynamic diameter sizes of 1-15 microns as PM_{10} , $\text{PM}_{2.5}$ and PM_{10} , total and respirable airborne nuisance PM.

The primary route of particulate matter entry into the body is inhalation. PM particles with an aerodynamic diameter larger than 10 micrometers can deposit in the nasal passages and throat, whereas PM particles with an aerodynamic diameter equal to or less than 10 micrometers can deposit in the lungs and alveoli.

Airborne particulate matter concentrations are dependent on the concentrations of contaminants in the soil, the degree of moisture in the soil, and wind speed, and exposures can occur during demolition work and the excavation or moving of debris and soil.

3.4 POLYCHLORINATED BIPHENYL

Polychlorinated biphenyls (PCBs) are a group of manufactured synthetic organic chemicals used in numerous industrial and commercial applications. PCBs chemicals were manufactured in the United States from 1929 until they were phased out in 1977 and ultimately banned in 1979 due to the chemical's detrimental impacts on human and environmental health. PCBs were used in various commercial and industrial applications, including hydraulic equipment, electrical, plasticizers in paints, additives to paints and floor finishes, plastics and rubber products, due to their chemical stability, resistance to extreme temperatures, high boiling point and electrical insulating properties. PCBs use has also been identified in capacitors, transformers, lubricants oils for hydraulic systems and motors, solvents for paints and caulking, consumer products such as carbonless copy paper, and internal components for fluorescent lights (ballast).



PCBs compounds known as congeners routes of entry into the body include inhalation of airborne PCBs congeners vapors, ingestion food and drinking water containing PCBs congeners, skin absorption of PCBs congeners from contaminated building materials and soil and/or eye contact with airborne PCBs vapors. The Cal/OSHA PEL is listed as 0.5 mg/m³ for 54% chlorine content (Aroclor 1254) and 1.0 mg/m³ for 42% chlorine content (Aroclor 1242) as indicated by 8 CCR 5155.

3.5 HYDRAULIC OIL

Hydraulic oil present in the building, a mineral oil, is anticipated to be released as airborne oil mist during the demolition of the building and deposit onto the soil surrounding the building. Mineral oil can enter the body by inhalation and ingestion. The Cal/OSHA PEL for oil mist is 5.0 mg/m³.



4.0 IDENTIFICATION OF CONTAMINATED SOIL

Areas with confirmed contaminated soil have not been identified on the Subject Property at this time. The responsibility of recognizing potential contamination areas that may arise during demolition and excavation lies with the Owner's Representative. Signs of soil contamination in the field can include, but are not limited to, unusual soil discoloration (such as grey, greenish, black, or other abnormal colors), the presence of buried debris (like metal, asphalt, pipes, concrete, or burned materials), or the detection of unusual odors (like "diesel", "oil", or "solvent" smells). Fuel spills like gasoline, diesel, and motor oil can leave evidence of contamination in the field. It is important to note that elevated concentrations of metals, chlorinated solvents, pesticides, and other contaminants might not show visible signs of contamination.

If there is evidence of soil contamination encountered during demolition and excavation work, operations in that specific area of the property should halt, and the Owner's Representative should be notified. Soil displaying signs of contamination in the field should undergo sampling, under the direct oversight of a Professional Geologist (PG) or Professional Engineer (PE).

4.1 CONTAMINATED SOIL HANDLING

Contractors responsible for demolition and excavation activities involving soil potentially contaminated shall hold all the necessary permits. During any activities that disturb or handle contaminated or potentially contaminated materials, environmental field personnel will continuously monitor air quality. Onsite contractors engaged in earth-disturbing tasks or involved in managing impacted or potentially impacted soil, as well as environmental field personnel, must receive proper training, adhering to federal, OSHA, Cal/OSHA, DOSH, CDPH requirements as relevant to their job responsibilities. If deemed necessary, required personal protective equipment will be immediately accessible. The removal, handling, transportation, and disposal of contaminated soil excavated during the project will comply with applicable federal, state, and local laws and regulations.

4.2 SOIL STAGING

Contaminated soil, if stored at the project site, must be placed on high-density polyethylene or an equivalent impermeable barrier and covered with high-density polyethylene or an equivalent impermeable barrier, or it should be put in United States Department of Transportation (DOT) approved containers. The polyethylene sheeting should have dimensions larger than those of the stockpile. Containers will be securely covered and stored to prevent the escape of contaminant vapors, odors, erosion of the soil, and



rainwater infiltration. Impacted and potentially impacted soil must be stored separately from clean soil to prevent contamination.

The stockpile shall not be located in sensitive site areas or near storm drain inlets and waterways. Stockpile areas should remain free of standing water at all time. Any excess water from excavated soil that is too wet for transport will be properly collected, containerized, analyzed and disposed of.

4.3 WASTE CHARACTERIZATION AND PROFILING

Soil intended for off-site disposal will undergo waste characterization through sampling at a frequency suitable for the contaminants of concern. This process will follow the waste profiling guidelines of the chosen disposal facilities and generally align with the requirements outlined in US EPA SW-846. Specifically, only discrete soil samples will be collected for this purpose.

4.4 DUST MITIGATION

To minimize dust generation, demolition and excavation areas will be controlled with soil wetting and physical barriers (e.g. polyethylene sheeting), as needed. Wetted surfaces will be visually wet, and care shall be taken during wetting to avoid generation of runoff.

Stray waste material and impacted soil on vehicles and tires will be removed manually with a brush at each excavation and soil staging area over plastic sheeting, as deemed necessary. Construction entrance plates (or shaker plates will be used to help remove soil from tire treads of trucks leaving the Subject Property, as necessary.

4.5 TRANSPORTATION REQUIREMENTS AND PROCEDURES

4.5.1 REQUIREMENTS FOR HAULERS

Only qualified haulers will be retained to transport contaminated soil from the project site. The selected haulers will be fully licensed and insured to transport the soils. Haulers will follow all applicable requirements in CFR, Title 49, Parts 174 through 177 with regard to loading, unloading, and general handling, based on transport mode.



4.5.2 Truck Loading Operations

As necessary, contaminated soils will be loaded onto trucks at predetermined staging areas, to be transported to a specified disposal site. Any residual waste material found on the vehicles, such as on the tires or container edges, will be manually cleaned using a brush. To prevent the escape of soil or dust, the truck's container will be securely covered during transit. Before departing from the soil staging areas, environmental field staff or the site supervisor will conduct a thorough inspection of each truck. This inspection will ensure that the soil container is properly covered and secured, the truck is cleared of any excess soil, and all necessary documentation, including manifests signed by the Owner or authorized individual, is in order. The trucks will also be equipped with appropriate placards and documentation provided by the Contractor. To reduce dust emissions during soil loading, water spray or a dust suppressant will be applied as needed.

4.5.3 TRANSPORTATION

The offsite transportation of non-hazardous and hazardous waste will comply with the DOT regulations as outlined in the Code of Federal Regulations (CFR), Title 49. It will also adhere to the stipulation of the California Hazardous Waste Control Law, found in the Health and Safety Code (HSC) and subsequent sections, as well as the California Code of Regulations (CCR), Title 22, Section 66428 and subsequent sections.

Aligned with these regulations, every waste hauler will satisfy and provide documentation of the following criteria:

- Vehicles will have passed a current annual inspection
- Vehicle operations will be trained in the safe handling of the waste/material
- Haulers will document their ability to pay damages that may be caused by their operations through maintaining proper and current insurance coverage
- Haulers will have valid licenses issued by the California Highway Patrol (CHP) for transportation of hazardous materials
- Haulers will take certain actions to minimize waste discharges during transport (e.g., covering the load to prevent the discharge of dust/particulates into the atmosphere during hauling)

In accordance with the above-mentioned regulations, hazardous waste haulers will satisfy the following additional requirements:

- Haulers will have a valid DTSC registration
- Haulers will have an active EPA identification number
- Haulers will comply with the Uniform Hazardous Waste Manifest System



4.5.4 TRAFFIC CONTROL PROCEDURES

Soil designated for disposal at offsite disposal facilities will be transported in trucks from the project site. To mitigate any impact on local streets, these trucks will be arranged in a controlled staging area before loading. Traffic coordination will be implemented to ensure that only a limited number of trucks are present at the project site at any given time. This approach aims to decrease the volume of truck traffic on nearby roads and minimize dust emissions from onsite movements. Additionally, while at the project site, all vehicles will be required to adhere to reduced speed limits (for example, less than five miles per hour) both for safety reasons and to practically reduce dust generation.

4.5.5 WASTE MANIFEST

For monitoring the movement of waste soils from their origin to the disposal facility, either the standard non-hazardous waste manifest or the Uniform Hazardous Waste Manifest will be utilized. Each manifest must be signed by the Owner or a designated representative before the excavated soil is transported offsite. To ensure proper tracking, copies of the waste manifest for each truckload will be kept in trucks during their transport to the disposal site and retained onsite until the project's completion.

The transportation of waste will adhere to various regulatory standards including the California Vehicle Code (CVC), CHP Regulations (13 CCR), California State Fire Marshal Regulations (19 CCR), DOT Regulations, Title 49 CFR, and the California HSC and 22 CCR. These guidelines mandate the maintenance of accurate records throughout the transportation process. A designated representative from the Contractor will be responsible for keeping a detailed log of all waste management and trucking activities while onsite. This log will include notes on observations, personnel present, and the times of trucks' arrival and departures.



5.0 DEMOLITION AND EXCAVATION AIR MONITORING

5.1 PARTICULATE MATTER AIR MONITORING

TSI DustTrak DRX Aerosol Monitor 8533 or equivalent shall be used to for particulate matter. This direct reading instrument has an aerosol measurement range from 0.001-150 mg/m³ (1-150,000 µg/m³), and provides appropriate sensitivity for site applications.

These direct reading instruments will be calibrated on a daily basis and maintained in accordance with the manufacturer's specifications. All real-time monitoring data will be logged. Data records will be referenced to site location, time and date of reading, and the initials of the field technician. The air-monitoring information will be monitored throughout the day during site activities and reviewed with the documentation package to ensure the airborne levels at the site perimeter are less than the established site action levels.

The initial assessment of the site should include an assessment of the concentrations of air contaminants in a non-contaminated area, generally upwind to the site. This is referred to as background concentration and will be recorded and compared to measurements made during actual measurements in potentially contaminated areas and down wind. Any drastic departure from background levels should be addressed by the use of effective dust suppression practices.

Airborne particulates at the monitoring points will be measured on a throughout the day during work activities and reported as 30-minute averages. An alarm (e.g. audible alarm and an electronic notification to a computer or mobile phone) would provide notification that the downwind location is measuring concentrations equal to or greater than the particulate matter action level. If the ambient air concentration at the downwind location is 50 µg/m³ greater than background (as measured at the upwind site) for a 30-minute period, or if airborne dust is observed leaving the work site during moving less than 50 cubic yards of soil, dust suppression activities will be employed. Work activities may continue during dust suppression activities provided that the downwind levels do not continually exceed 50 µg/m³ greater than background and persistent visible dust is not migrating from the work site. If site activities warrant monitoring overnight or on the weekends, the dust monitors will continue collecting measurements, with an alarm sent to site personnel if thresholds are exceeded.

If the ambient air concentration at the downwind location is 25 µg/m³ greater than background (as measured at the upwind site) for a 30-minute period, or if airborne dust is



observed leaving the work site during moving equal to or more than 50 cubic yards of soil, dust suppression activities will be employed. Work activities may continue during dust suppression activities provided that the downwind levels do not continually exceed $25 \mu\text{g}/\text{m}^3$ greater than background and persistent visible dust is not migrating from the work site. If site activities warrant monitoring overnight or on the weekends, the dust monitors will continue collecting measurements, with an alarm sent to site personnel if thresholds are exceeded.

If, after implementation of dust suppression techniques, downwind levels are greater than 25 or $50 \mu\text{g}/\text{m}^3$ greater than the upwind level, work will cease and a re-evaluation of activities initiated. Work will resume once dust suppression measures and other controls are successful in reducing the downwind concentration to less than 25 or $50 \mu\text{g}/\text{m}^3$ of the upwind level for 15 minutes and in preventing persistent visible dust from migrating beyond the work site.

Meteorological parameters consisting of wind speed, wind direction, temperature and relative humidity will be monitored continuously onsite and reported as 30-minute averages in the data set.

5.2 SPECIFIC AIR CONTAMINANTS MONITORING

A characterization of air quality with respect to site asbestos, heavy metals and PCBs can be verified through specific integrating air sampling and laboratory analysis to determine that there are not exceedances of the AL included in Section 2.2 and this section.

5.2.1 SAMPLING LOCATION AND FREQUENCY

Specific air contaminants monitoring provides verification samples that shall be collected to determine the concentration of asbestos, lead, mercury, oil mist and PCBs in the air at the beginning of each demolition phase or whenever there is a significantly new demolition activity that may increase concentrations of these air contaminants until three consecutive days of data is returned. These results will be compared to levels established in this APSMP for asbestos, lead, mercury, oil mist and PCBs. Constituent-specific monitoring will be conducted downwind of the demolition activities.

Downwind directions will be pre-established each day by reviewing the actual site-specific meteorological data at a representative location on site. Air monitoring locations may be moved if a significant change in wind direction is observed, or due to the location, nature



and intensity of site activity, or results of the contractor's health and safety monitoring. Modifications of monitoring locations shall be documented.

Perimeter monitors will be placed as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

Samples will be collected during the active working period on the site for each sampling day, generally during the hours of 7 AM to 5 PM. Air pumps will be installed and operated at continuous flow. The pumps pull ambient air through a sample media at a constant flow rate. The devices, set approximately five (5) feet above ground, will be deployed at the beginning of each day prior to any demolition activities taking place.

The sampling devices will be removed at the end of the workday, and the sample media will be sent off site for laboratory analysis. Samples collected will be sent to the laboratory at the end of each day of monitoring whenever practicable.

Asbestos air sampling shall be performed by third party Cal/OSHA certified asbestos consultants (CACs) and/or certified site surveillance technicians (CSSTs) in compliance with Cal/OSHA requirements codified in 8 CCR 341.15 and 1529.

5.2.2 AIR MONITORING ACTION LEVELS

Table 4-1 provides Action Levels for airborne asbestos, lead, mercury, oil mist and PCBs, Detection Limits, Sampling Methods, Sampling Media and Sampling Period.

Asbestos, lead, mercury, oil mist and PCBs air samples will be collected using battery operated SKC Universal pumps (or equivalent) at the perimeter locations over time periods that average approximately eight (8) - ten (10) hours a day.

Meteorological data and real-time data collected will be evaluated and used to select what sample is anticipated to be the downwind sample for each day of monitoring if there is any uncertainty regarding the predominant wind direction.



TABLE 5-1					
AIR MONITORING ACTION LEVELS					
Air Contaminant	Action Level	Detection Limit	Sampling Method	Sampling Media	Sampling Period
Asbestos	PCM Total Fibers = 0.01 f/cc TEM Asbestos Fibers = 0.01 f/cc	PCM = 0.002 f/cc TEM = 0.002 f/cc	NIOSH Methods 7400/7402	25 mm MCE Filter	8 hours
Lead and Mercury	Mercury = 2.5 µg/m ³ Lead = 3.0 µg/m ³	Hg = 0.009 µg Pb = 0.023 µg	Lead NIOSH Method 7303 Mercury NIOSH Method 6009	37 mm MCE Filter 37 mm PVC Filter	8 hours
PCBs	PCBs = 50 µg/m ³	PCBs = 6 µg/sample	NIOSH Method 5503	37 mm PTFE Filter	8 hours
Oil Mist	Oil Mist = 500 µg/m ³	Oil Mist =	NIOSH Method 5026	PW PTFE	8 hours
NIOSH and OSHA Methods are selected based on SGS Galson Laboratory recommendations NIOSH Method 7402 TEM analysis may be used to confirm asbestos fibers if NIOSH 7400 PCM analysis exceed 0.01 f/cc					

At the conclusion of each sampling day or event, the sample pumps will be removed from their monitoring locations, sampling cassettes will be removed from the inlet tubing, individual cassettes will be labeled with the monitoring location identification number, date, and total monitoring time, and then be refrigerated or placed into an approved shipping container.

Chain-of custody forms will be completed and shipped with the samples to the analytical laboratory. When completing the chain-of-custody forms, the sampling technician will identify the specific analytes to be analyzed. Reporting of sampling events will include meteorological data, and the presence of potential sources of site COIs. Weather observations will be taken from the weather station onsite.



5.3 ESTABLISHMENT OF BACKGROUND CONCENTRATIONS

The initial assessment of the site should include an assessment of the concentrations of air contaminants in a non-contaminated area, generally upwind to the site. Asbestos, heavy metals, particulate matter and PCBs background air monitoring shall be used to establish background airborne concentrations. This is referred to as background concentration and will be recorded and compared to measurements made during actual measurements in potentially contaminated areas and down wind. Any drastic departure from background levels should be addressed by the use of effective dust suppression practices.



6.0 CORRECTIVE ACTIONS

Based upon perimeter particulate matter monitoring data described in the previous sections and/or visual observation, the need for dust suppression procedures will be determined by the Site Safety Officer.

The demolition activities will be conducted in a manner that reduces the potential to generate dust and particulates from being generated. Based on the guidance from these documents the following techniques may be employed to mitigate the generation and migration of fugitive dust during demolition activities:

- 1) Increase frequency, volume, and/or coverage of water misting, sprays, and foggers to prevent debris and dirt from drying.
- 2) Provide additional dust suppression systems and operating personnel during the task duration.
- 3) Routine checks to ensure that covered stockpiles remain covered.
- 4) Reduce the pace of, or cease, dust producing activity until the problem is corrected.
- 5) Notify the area supervisor of dust conditions and implement dust suppression procedures.
- 6) Remove accumulated dirt and soil from problematic areas, and/or cover, enclose, or isolate dust generating areas/surfaces to shield them from the wind.
- 7) Modify operating procedures and methods to eliminate problematic conditions.
- 8) Increase level of worker awareness and instruct them on implementation of any new or modified operating procedures.
- 9) Report and document all procedural modifications and results.
- 10) Perform routine audits of dust suppression methods and work areas for dust sources.

If, after implementation of dust suppression techniques, downwind particulate concentrations are more than 25 and 50 $\mu\text{g}/\text{m}^3$ greater than the upwind level or persistent visible fugitive dust is leaving the site, work will be suspended until appropriate corrective measures are identified and implemented to remedy the situation.

Dust suppression techniques consist of using "Dust Boss" demolition water misting fans



throughout the work site as the work-fronts change, as well as using surfactants when practicable. Placement of the misting fans will be determined daily, and will be driven by site conditions. Fans may be moved throughout the day as conditions change. Stockpile material from demolition will be treated with water, treated with surfactant, or tarped, depending on the duration that the stockpile will remain in place, in order to minimize dust migration. Intermodal containers will be tarped immediately after loading to eliminate migration of dust.



7.0 APPROVALS

The undersigned certify that this Air Pollution and Soil Management Plan will be utilized for evaluating airborne emissions from building demolition at 1301 State Street, San Diego, California 92101.

A handwritten signature in black ink, appearing to read "Robert Menald", written over a horizontal line.

November 28, 2023

Robert Menald, CAC, LRC I/A /PM
Project Manager

Date

A handwritten signature in blue ink, appearing to read "Ibrahim Sobeih", written over a horizontal line.



November 28, 2023

Ibrahim Sobeih, MS, MSPH, CIH, CAC, LRC I/A
Certified Industrial Hygienist

Date



REFERENCES

- Cal/OSHA Title 8 California Code of Regulations (8 CCR), General Industry Safety Orders (GISO) and Construction Safety Orders (CSO):
 - Section 341.15 – Certification of Asbestos Consultants and Site Surveillance Technicians
 - Section 1529 – Asbestos
 - Section 1532.1 – Lead
 - Section 5155 – Air Contaminants
- County of San Diego Department of Environmental Health, 2011, Site Assessment and Mitigation Manual, Section 5, Site Investigation Techniques. August 15, 2011.
- California Environmental Protection Agency (Cal/EPA), Air Resources Board (ARB), Title 17 California Code of Regulations, Article 2, Section 70200 (17 CCR 70200): Ambient Air Quality Standards (AAQS) for Particulate Matter (PM).
- United States Department of Labor (DOL), Occupational Safety and Health Administration (OSHA): 29 CFR 1010.1000 – Air Contaminants;
- United States Department of Health and Human Services (DHHS), Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH):
 - Pocket Guide to chemical Hazards;
 - Method 7303 – Elements by Inductively Coupled Argon Plasma-Atomic Emission Spectroscopy (ICP-AES), March 15, 2003;
 - Method 7400 – Asbestos and Other Fibers by Phase Contrast Microscopy, June 14, 2019; and
 - Method 7402 – Asbestos by Transmission Electron Microscopy (TEM), August 15, 1994.