

ENGINEERING EVALUATION AUTHORITY TO CONSTRUCT

Facility Name: Market Creek Plaza, LLC

Application Number: APCD2026-APP-009222

Equipment Type: [52B] Soil Remediation Equipment

Facility ID: APCD2026-SITE-05086

Equipment Address: 312 Euclid Ave
San Diego, CA 92114

Facility Contact: Matt Alkire

Contact Title: Environmental Engineer; EKI Environment & Water, Inc.

Contact Phone: (562) 370-5356

Email: malkire@ekiconsult.com

Permit Engineer: John Lee

Senior Engineer: Joe Herzig



Joe Herzig
Senior Air Pollution Control Engineer

1.0 BACKGROUND

1.1 Type of Application

This application is for a new sub-slab depressurization permit.

1.2 Permit History

This is a new permit.

1.3 Facility Description

The approximately 7-acre Site is currently occupied by Market Creek Plaza shopping center and consists of a Food 4 Less grocery store, a bank, Starbucks, various restaurant establishments, and other commercial retailers and office space. The Langley Fleet Aerospace facility (Langley) occupied the Site from approx. the 1950s through the 1990s, during which time the solvent trichloroethylene (TCE) was used as part of the pre-existing facility operations. As later identified, release(s) of TCE likely occurred during Langley's occupation of the Site. (Ref: [EnviroStor](#))

1.4 Other Background Information

There have been no hearing board actions, permit denials, legal settlements, recent NOV's or nuisance complaints. The facility is not a Title V major source.

2.0 PROCESS DESCRIPTION

2.1 Equipment

Soil vapor extraction wells vented to a liquid/vapor separator, a blower (500 scfm maximum), various vacuum relief/air dilution valves, an air flow meter, two (2) 2,000-pound carbon adsorbers in series, a vertical exhaust stack at least 15 ft above ground level, and all associated piping, controls, valves, sampling ports, and safety features.

2.2 Process

The applicant has applied for the installation of the carbon adsorption system to remove contamination of trichloroethylene (TCE) from the site. The vapor extraction/remediation system is expected to run 24 hours/day, 365 days/year until the concentrations of the contaminants in the soil reach acceptable levels required by Department of Toxic Substances Control (DTSC).

2.3 Emissions Controls

Carbon adsorbers in series are used to control emissions from the soil remediation system.

2.4 Attachments

Application submittals.

3.0 EMISSIONS

3.1 Emission Estimate Summary

The emission increase was estimated for the process. A summary of the emissions is provided in Table 3.1-1. The emissions were based on the maximum concentrations provided in the application.

Table 3.1-1: Post-Project TAC PTE

Pollutant	CAS	Eh, controlled [lb/hour]	Ed, controlled [lb/day]	Ea, controlled [lb/year]
Trichloroethene (TCE)	79-01-6	0.011	0.27	98.6
VOC	-	0.0006	0.014	5.0
Cis-1,2-dichloroethene (cDCE)	156-59-2	0.000056	0.0013	0.5

3.2 Emission Estimate Assumptions

1. The capture efficiency is 100%
2. The carbon adsorption system achieves a 99% control efficiency for VOC, cDCE, and TCE.
3. The molecular weight of VOC is assumed to be equal to that of TCE because TCE accounts for approximately 95% of the emissions.

3.3 Emission Calculations

Calculation details are provided in the spreadsheet.

3.4 Attachments

APP009222_Calculations

4.0 APPLICABLE RULES

4.1 Prohibitory Rules

4.1.1 Rule 51 - Nuisance

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort,

repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations in the growing of crops or raising of fowls or animals.

Equipment is expected to comply with the Nuisance Rule as specified in Rule 51. This will be verified during the start-up inspection. A condition is recommended to ensure compliance with the rule.

4.2 New Source Review (NSR)

Rule 20.2(a) - Applicability: This rule applies to any new or modified stationary source, to any new or modified emission unit and to any relocated emission unit being moved from a stationary source provided that after completion of the project, the stationary source is not a major stationary source.

This section has been included to distinguish this source from a major source. This source is well below the thresholds defined in 20.1(c)(35), and therefore is classified as a non-major stationary source. Therefore, Rule 20.2 applies.

Rule 20.2(d)(1)(iv) - Best Available Control Technology (BACT): Any new or modified emission unit which has any increase in its potential to emit particulate matter (PM₁₀), oxides of nitrogen (NO_x), volatile organic compounds (VOC) or oxides of sulfur (SO_x) and which unit has a post-project potential to emit of 10 pounds per day or more of PM₁₀, NO_x, VOC, or SO_x shall be equipped with Best Available Control Technology (BACT) for each such air contaminant.

The VOC emissions are estimated to be 0.3 lbs/day; BACT is not triggered.

Rule 20.2(d)(2)(i) - Air Quality Impact Analysis (AQIA): This rule requires new/modified sources that exceed the emissions limits in the table below to perform an AQIA.

AQIA does not apply since estimated emission rates of PM₁₀, NO_x, SO_x, CO and Lead do not exceed the above trigger levels.

Rule 20.2(d)(3) - Prevention of Significant Deterioration (PSD): Rule 20.1 defines a PSD stationary source as any stationary source which has, or will have after issuance of a permit, an aggregate potential to emit one or more air contaminants in amounts equal to or greater than any of the emission rates listed below.

The emissions from this project are below the PSD trigger levels; therefore, this project is not a PSD stationary source and is not applicable to PSD requirements.

4.3 Toxic New Source Review (TNSR)

Rule 1200 applies to any new, relocated or modified emission unit which results in any increase in emissions of one or more toxic air contaminant(s), and for which an Authority to Construct or Permit to Operate is required. This rule requires health risks to be reviewed to ensure the risks are below one in one million for cancer (without T-BACT) and that the health hazard index is less than one from chronic non-cancer and acute toxic air contaminants.

This SVE system is equipped with a carbon adsorption system, which is considered T-BACT.

To meet the health risk thresholds in the screening tool, the following conditions are required:

- 1) The stack height is at least 15 ft.
- 2) The maximum flowrate is 500 scfm
- 3) The stack orientation is vertical and there is no obstruction, such as a rain cap.

The distance between the emission point and the nearest residential building is approximately 115 ft; the screening tool passes with a distance of 99 ft, allowing for potential inaccuracies in the measured distance.

With T-BACT applied, the estimated health risks are below the applicable thresholds, as shown in the following table. Therefore, the operation is expected to comply with Rule 1200.

Screening HRA Results		Threshold	Number of Sources:	1
Resident Cancer Risk:	10.0	10.0	Pass	
Resident Chronic HHI:	0.0	1.0	Pass	
Worker Cancer Risk:	3.5	10.0	Pass	
Worker Chronic HHI:	0.0	1.0	Pass	
Acute HHI:	0.0	1.0	Pass	

4.4 Air Toxics Hot Spots

This rule is applicable to each existing stationary source required to prepare a health risk assessment, as determined by the Air Pollution Control Officer pursuant to the priority system and procedures set out in Section 44360 of the California Health and Safety Code.

There is no active risk reduction plan currently in place.

4.5 Public Notices

State law requires local air pollution control districts, prior to approving permits for equipment located within 1,000 feet of a school that may increase the release of any hazardous air pollutants, to notify the public.

KIPP Adelante Preparatory Academy and Altus Schools Charter School of San Diego are located within 1,000 ft of the emission source, as shown in Figure 4.5-1. AB3205 is required.

Figure 4.5-1: Aerial photo with a 1,000 ft radius circle.



4.6 State and Federal Regulations

There are no ATCMs, NSPS, or NESHAPs applicable to soil remediation operations.

4.7 CEQA

CEQA requires government agencies, such as air districts, to consider the environmental consequences of their actions before approving plans and policies or committing to a course of action on a project. This procedure provides specific steps for Engineering staff in

carrying out the requirements of CEQA and to ensure that environmental impacts related to permitting actions are thoroughly and consistently addressed.

The project being permitted is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) under Article 19 of the CEQA Guidelines. Specifically, the project is exempt under Section §15330, which includes soil remediation operations. This exemption is appropriate as the project falls within the scope of established exemptions that recognize the negligible impact of such activities on the environment and is not subject to any of the exceptions to the Categorical Exemptions listed in Section 15300.2 of the CEQA Guidelines. Consequently, no further environmental review is required.

4.8 Title V

This is not a Title V facility.

4.9 Attachments

N/A

5.0 RECOMMENDATION

Soil remediation process is expected to be in compliance with all applicable District rules and regulations. Approval of the A/C is recommended with the below conditions, which are the same or similar to conditions used for other similar soil remediation permits.

6.0 RECOMMENDED A/C CONDITIONS

The following recommended A/C conditions for the SVE system operation as Districts standard set of conditions for soil vapor extraction systems.

Display Order	Condition	Comments
1	The permittee shall install, maintain, and label a vapor sampling port at both the inlet and the exhaust of the air pollution control device associated with this soil remediation equipment. (District Rule 1200)	
2	There shall be no emissions of organic compounds into the atmosphere from the exhaust stack or any other portion of the vapor extraction system, the emission control device, the groundwater extraction system, the groundwater treatment system, or any material storage containers with a concentration	The site utilizes a photoionization detector (PID), which measures VOC concentrations.

	equal to or greater than 20 ppmv as VOC. This requirement shall not apply to organic compounds released during sampling, repair, maintenance, waste disposal, and/or equipment installation activities. (District Rule 21)	
3	At no time shall the subject equipment cause or contribute to a nuisance as specified in District Rule 51. If compliance with Rule 51 cannot be demonstrated to the satisfaction of the District, the applicant will take whatever corrective action necessary to meet applicable requirements. If corrective action requires any physical change or modification to the subject equipment, the applicant shall apply for and obtain an Authority to Construct for all such modifications. (Rule 51)	
4	The permittee shall install, operate, modify, and adjust the soil vapor extraction system such that any automatic air dilution valve installed in the header piping is NOT continuously open to the atmosphere. All required air flow rate measurements, inlet vapor samples, and exhaust gas vapor samples shall be taken during that portion of the vapor extraction cycle when all installed automatic air dilution valves are in the closed position. (District Rule 21)	
5	The permittee shall install an air flow meter that continuously measures and displays the total air flow rate (in scfm) through the activated carbon air pollution control device associated with this remediation equipment. If a pressure sensor device is used in place of a flowmeter, a conversion chart shall be made available to indicate the flowrate (in scfm) corresponding to the pressure reading. This air flow meter or pressure sensor shall be operated, calibrated, and maintained in accordance with the manufacturer's specifications. (District Rule 21)	
6	The maximum total air flow rate into the air pollution control device shall not exceed 500 scfm during that portion of the vapor extraction cycle when all installed automatic air dilution valves are in the closed position. (District Rules 21 and 1200)	Site-specific flow rate.
7	The permittee shall measure and record the air flow rate (in scfm) into the air pollution control device associated with this soil remediation equipment at least once every 1000 operating hours. Additionally, the permittee shall also measure and record this air flow rate after any manual air dilution valve installed in the header	

	piping is opened, closed, or otherwise adjusted. Each recorded air flow rate measurement shall be taken during that portion of the vapor extraction cycle when all installed automatic air dilution valves are in the closed position. (District Rules 21 and 1200)	
8	The permittee shall sample, analyze, and record the organic compound concentration (in ppmv as trichloroethene) of the inlet and exhaust vapors at least once every 1000 operating hours. Additionally, the permittee shall sample, analyze, and record the organic compound concentration (in ppmv as trichloroethene) of the inlet and exhaust vapors after any manual air dilution valve installed in the header piping is opened, closed, or otherwise adjusted. Each inlet and exhaust vapor sample shall be collected during that portion of the vapor extraction cycle when all installed automatic air dilution valves are in the closed position. (District Rules 21 and 1200)	
9	The permittee shall use EPA Methods 8260, 8260B, TO-15, or a similar equivalent analytical method as approved by the District to quantify the organic compound concentration of the inlet and exhaust vapor samples. All vapor sample analytical results and records shall be retained for at least three years and made available to District personnel upon request. (District Rules 21 and 1200)	
10	The maximum temperature of the air and vapors entering the air pollution control device shall not exceed 140°F at any time. The permittee shall install a thermometer that continuously measures and displays the temperature (in °F) entering the activated carbon air pollution control device associated with this remediation equipment. The permittee shall record the temperature (in °F) entering the air pollution control device associated with this soil remediation equipment at least once every 1000 operating hours. These operating records shall be retained for at least three years and made available to District personnel upon request. (Rule 21 and 1200)	Most activated carbon media can withstand temperatures up to 140°F
11	The permittee shall record the corresponding date and cumulative operating hours of the air pollution control device when each vapor sample is collected and each air flow rate is recorded. These operating records shall be retained for at least three years and	

	made available to District personnel upon request. (District Rules 21 and 1200)	
12	Emissions of trichloroethene (TCE) from the exhaust stack of the air pollution control device associated with this soil remediation equipment shall not exceed 98.6 lbs. per calendar year. The permittee shall calculate and record the estimated trichloroethene emission rate from the exhaust stack based upon the measured air flow rates (in scfm) and exhaust stack organic compound concentration results (in ppmv as trichloroethene) at least once every 1000 operating hours. Additionally, the permittee shall calculate and record the estimated trichloroethene emission rate (lbs/hr) from the exhaust stack after any manual air dilution valve installed in the header piping is opened, closed, or otherwise adjusted. These records and all supporting documentation shall be retained for at least three years and made available to District personnel upon request. (District Rule 21)	Emission limit based on the screening tool; Rule 21 applies.
13	The exhaust flow at the release point shall be vertical. Any obstruction, such as a rain cap, which redirects the flow to any direction other than vertical shall not be allowed. (Rule 1200)	Screening tool condition
14	Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.	
15	This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.	
16	The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)	