Draft Engineering Evaluation
Verano Townhomes Development, Building 9
1201 Verano Rd, Mountain View, CA 94043-1505
Plant No. 204025
Application No. 734599
Project Description: Four Sub Slab Depressurization Systems

Background

Verano Townhomes Development, Building 9 has applied for an Authority to Construct for the following equipment:

S-1 Sub Slab Depressurization System
Make: RadonAway, Model: EC6 Pro, Maximum 90 scfm.

One (1) blower

S-2 Sub Slab Depressurization System
Make: RadonAway, Model: EC6 Pro, Maximum 90 scfm.

One (1) blower

S-3 Sub Slab Depressurization System
Make: RadonAway, Model: EC6 Pro, Maximum 90 scfm.

One (1) blower

S-4 Sub Slab Depressurization System
Make: RadonAway, Model: EC6 Pro, Maximum 90 scfm.

One (1) blower

Total flow rate 360 scfm
No Abatement

The site is located at 1201 Verano Rd, Mountain View, CA 94043-1505. This site is a Chlorinated VOC site. Environmental investigation data collected in preparation of the development has discovered the need for soil remediation.

The facility is proposing four Sub Slab Depressurization (SSD) systems to improve soil gas conditions, reduce potential vapor intrusion risk, and improve groundwater quality at the site.

Each SSD system at this site will consist of one blower, each rated at 90 cubic feet per minute (cfm). The total flow rate will not exceed 360 scfm. Per correspondence with the facility, the flow rate will be measured during startup and during routine inspections to confirm the flow rate. No abatement is being proposed.

Emissions calculations were based on laboratory results from samples taken at the site. Tetrachloroethene (PCE) and benzene were detected from the site based on the pilot test data from July 2025.

This project is not expected to trigger Health Risk Assessment per Regulation 2-5, Table 1.

Procedures are outlined in the conditions found below. The applicant will be required to provide written notification at the start of the operation. The applicant will be required to stay below the acute and chronic trigger levels of Regulation 2-5.

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This project is not located within the boundaries of an Overburdened Community (OBC) as defined in Regulation 2-1-243 and a Health Risk Assessment (HRA) is not triggered for this project, but there are two K-12 schools within 1,000 feet of the proposed SSD systems. Therefore, K-12 school public notification is required per Regulation 2-1-412.

Emission Calculations

Initial soil vapor data is used to estimate precursor organic compound (POC), non-precursor organic compound (NPOC), and toxic air contaminant (TAC) emissions. It is assumed that the equipment can operate 24 hours a day, 365 days a year.

The following assumptions are used to estimate emissions.

- Operating conditions: Pressure = 1 Atm; Inlet Temperature = 21°C; 1 mole occupies 24.15 Liters (or 386.8 ft3/pound-mol).
- Toxic Air Contaminants (TAC) emissions will be based on soil vapor data submitted with this application.
- There will be four SSD systems consisting of one blower each, each rated at 90 scfm. The total flow rate will not exceed 360 scfm.
- There will be no abatement for the blower.
- Emissions are from pilot TO-15 tests completed in January 2024, June 2024, July 2024, August 2024, and November 2024 by Enthalpy Analytical and Torrent Laboratory, Inc.

Estimates of unabated emissions from the proposed SSD systems are shown in Table 1a for each source (S-1 through S-4) and in Table 1b for the total system (S-1, S-2, S-3, and S-4 combined) below.

Table 1a. SSD System Unbated Emissions for S-1, S-2, S-3, and S-4 each

Pollutant	CAS #	Unabated Emissions				
		Inlet Conc. (ug/m^3)	Hourly (lbs./hour)	Daily (lbs./day)	Annual (lbs./year)	Annual (ton/year)
1,1,1-Trichloroethane (Methyl Chloroform)	71-55-6	3.1	1.0E-06	2.5E-05	9.1E-03	4.6E-06
1,1,2,2-Tetrachloroethane	79-34-5	2.6	8.8E-07	2.1E-05	7.7E-03	3.8E-06
1,1,2-Trichloroethane	79-00-5	2.1	7.1E-07	1.7E-05	6.2E-03	3.1E-06
1,1-Dichloroethene	75-35-4	1.5	5.1E-07	1.2E-05	4.4E-03	2.2E-06
1,1-Difluoroethane	75-37-6	5.1	1.7E-06	4.1E-05	1.5E-02	7.5E-06
1,2,4-Trichlorobenzene	120-82-1	2.8	9.4E-07	2.3E-05	8.3E-03	4.1E-06
1,2,4-Trimethylbenzene	95-63-6	390	1.3E-04	3.2E-03	1.2E+00	5.8E-04
1,2-Dibromoethane	106-93-4	2.9	9.8E-07	2.3E-05	8.6E-03	4.3E-06
1,2-Dichlorobenzene	95-50-1	2.3	7.7E-07	1.9E-05	6.8E-03	3.4E-06
1,2-Dichloroethane	107-06-2	1.5	5.1E-07	1.2E-05	4.4E-03	2.2E-06
1,2-Dichloroethene (cis)	156-59-2	39	1.3E-05	3.2E-04	1.2E-01	5.8E-05
1,2-Dichloroethene (trans)	156-60-5	1.5	5.1E-07	1.2E-05	4.4E-03	2.2E-06
1,2-Dichloropropane	78-87-5	6.5	2.2E-06	5.3E-05	1.9E-02	9.6E-06
1,3,5-Trimethylbenzene	108-67-8	130	4.4E-05	1.1E-03	3.8E-01	1.9E-04
1,3-Dichlorobenzene	541-73-1	2.3	7.7E-07	1.9E-05	6.8E-03	3.4E-06
1,3-Dichloropropene (cis)	10061-01-5	1.7	5.7E-07	1.4E-05	5.0E-03	2.5E-06
1,3-Dichloropropene (trans)	10061-02-6	1.7	5.7E-07	1.4E-05	5.0E-03	2.5E-06
1,4-Dichlorobenzene	106-46-7	2.3	7.7E-07	1.9E-05	6.8E-03	3.4E-06
2-Butanone	78-93-3	45	1.5E-05	3.6E-04	1.3E-01	6.6E-05
2-Hexanone	591-78-6	10	3.4E-06	8.1E-05	3.0E-02	1.5E-05
4-Ethyltoluene	622-96-8	120	4.0E-05	9.7E-04	3.5E-01	1.8E-04

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4-Methyl-2-pentanone (MIBK)	108-10-1	3.5	1.2E-06	2.8E-05	1.0E-02	5.2E-06
Acetone	67-64-1	120	4.0E-05	9.7E-04	3.5E-01	1.8E-04
Benzene	71-43-2	200	6.7E-05	1.6E-03	5.9E-01	3.0E-04
Benzyl chloride	100-44-7	2.0	6.7E-07	1.6E-05	5.9E-03	3.0E-06
Bromodichloromethane	75-27-4	2.5	8.4E-07	2.0E-05	7.4E-03	3.7E-06
Bromoform	75-25-2	3.9	1.3E-06	3.2E-05	1.2E-02	5.8E-06
Bromomethane	74-83-9	1.5	5.1E-07	1.2E-05	4.4E-03	2.2E-06
Carbon disulfide	75-15-0	11	3.7E-06	8.9E-05	3.2E-02	1.6E-05
Carbon tetrachloride	56-23-5	10	3.4E-06	8.1E-05	3.0E-02	1.5E-05
Chlorobenzene	108-90-7	6.9	2.3E-06	5.6E-05	2.0E-02	1.0E-05
Chloroform	67-66-3	110	3.7E-05	8.9E-04	3.2E-01	1.6E-04
Chloromethane	74-87-3	7.1	2.4E-06	5.7E-05	2.1E-02	1.0E-05
Dibromochloromethane	124-48-1	3.2	1.1E-06	2.6E-05	9.4E-03	4.7E-06
Ethyl chloride (chloroethane)	75-00-3	1.6	5.4E-07	1.3E-05	4.7E-03	2.4E-06
Ethylbenzene	100-41-4	380	1.3E-04	3.1E-03	1.1E+00	5.6E-04
Freon 11 (Trichlorofluoromethane)	75-69-4	7.1	2.4E-06	5.7E-05	2.1E-02	1.0E-05
Freon 113 (1,1,2-Trichloro-1,1,2-trifluoro	76-13-1	2.9	9.8E-07	2.3E-05	8.6E-03	4.3E-06
Freon 114 (1,2-Dichlorotetrafluoroethane	"	2.7	9.1E-07	2.2E-05	8.0E-03	4.0E-06
Freon 12 (Dichlorodifluoromethane)	75-71-8	22	7.4E-06	1.8E-04	6.5E-02	3.2E-05
Hexachloro-1,3-butadiene	87-68-3	4.1	1.4E-06	3.3E-05	1.2E-02	6.0E-06
Hexane, n-	110-54-3	1,100	3.7E-04	8.9E-03	3.2E+00	1.6E-03
Isopropyl alcohol (2-Propanol)	67-63-0	180	6.1E-05	1.5E-03	5.3E-01	2.7E-04
Methyl tert-butyl ether	1634-04-4	57	1.9E-05	4.6E-04	1.7E-01	8.4E-05
Methylene Chloride	75-09-2	12	4.0E-06	9.7E-05	3.5E-02	1.8E-05
Naphthalene	91-20-3	10	3.4E-06	8.1E-05	3.0E-02	1.5E-05
Styrene	100-42-5	1.6	5.4E-07	1.3E-05	4.7E-03	2.4E-06
Tetrachloroethene	127-18-4	270	9.1E-05	2.2E-03	8.0E-01	4.0E-04
Toluene	108-88-3	3300	1.1E-03	2.7E-02	9.7E+00	4.9E-03
Trichloroethene	79-01-6	20	6.7E-06	1.6E-04	5.9E-02	3.0E-05
Vinyl acetate	108-05-4	6.7	2.3E-06	5.4E-05	2.0E-02	9.9E-06
Vinyl Chloride (chloroethylene)	75-01-4	0.97	3.3E-07	7.8E-06	2.9E-03	1.4E-06
Xylenes	1330-20-7	2500	8.4E-04	2.0E-02	7.4E+00	3.7E-03

Notes:
1. It is assumed that equipment will operate 24 hours a day, 365 days a year.

Table 1b. SSD System Unbated Emissions for S-1, S-2, S-3, and S-4 combined

Pollutant	CAS #	Unabated Emissions				
		Inlet Conc. (ug/m^3)	Hourly (lbs./hour)	Daily (lbs./day)	Annual (lbs./year)	Annual (ton/year)
1,1,1-Trichloroethane (Methyl Chloroform)	71-55-6	3.1	4.2E-06	1.0E-04	3.7E-02	1.8E-05
1,1,2,2-Tetrachloroethane	79-34-5	2.6	3.5E-06	8.4E-05	3.1E-02	1.5E-05
1,1,2-Trichloroethane	79-00-5	2.1	2.8E-06	6.8E-05	2.5E-02	1.2E-05
1,1-Dichloroethene	75-35-4	1.5	2.0E-06	4.9E-05	1.8E-02	8.9E-06
1,1-Difluoroethane	75-37-6	5.1	6.9E-06	1.6E-04	6.0E-02	3.0E-05
1,2,4-Trichlorobenzene	120-82-1	2.8	3.8E-06	9.1E-05	3.3E-02	1.7E-05
1,2,4-Trimethylbenzene	95-63-6	390	5.3E-04	1.3E-02	4.6E+00	2.3E-03
1,2-Dibromoethane	106-93-4	2.9	3.9E-06	9.4E-05	3.4E-02	1.7E-05
1,2-Dichlorobenzene	95-50-1	2.3	3.1E-06	7.4E-05	2.7E-02	1.4E-05
1,2-Dichloroethane	107-06-2	1.5	2.0E-06	4.9E-05	1.8E-02	8.9E-06

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1,2-Dichloroethene (cis)	156-59-2	39	5.3E-05	1.3E-03	4.6E-01	2.3E-04
1,2-Dichloroethene (trans)	156-60-5	1.5	2.0E-06	4.9E-05	1.8E-02	8.9E-06
1,2-Dichloropropane	78-87-5	6.5	8.8E-06	2.1E-04	7.7E-02	3.8E-05
1,3,5-Trimethylbenzene	108-67-8	130	1.8E-04	4.2E-03	1.5E+00	7.7E-04
1,3-Dichlorobenzene	541-73-1	2.3	3.1E-06	7.4E-05	2.7E-02	1.4E-05
1,3-Dichloropropene (cis)	10061-01-5	1.7	2.3E-06	5.5E-05	2.0E-02	1.0E-05
1,3-Dichloropropene (trans)	10061-02-6	1.7	2.3E-06	5.5E-05	2.0E-02	1.0E-05
1,4-Dichlorobenzene	106-46-7	2.3	3.1E-06	7.4E-05	2.7E-02	1.4E-05
2-Butanone	78-93-3	45	6.1E-05	1.5E-03	5.3E-01	2.7E-04
2-Hexanone	591-78-6	10	1.3E-05	3.2E-04	1.2E-01	5.9E-05
4-Ethyltoluene	622-96-8	120	1.6E-04	3.9E-03	1.4E+00	7.1E-04
4-Methyl-2-pentanone (MIBK)	108-10-1	3.5	4.7E-06	1.1E-04	4.1E-02	2.1E-05
Acetone	67-64-1	120	1.6E-04	3.9E-03	1.4E+00	7.1E-04
Benzene	71-43-2	200	2.7E-04	6.5E-03	2.4E+00	1.2E-03
Benzyl chloride	100-44-7	2.0	2.7E-06	6.5E-05	2.4E-02	1.2E-05
Bromodichloromethane	75-27-4	2.5	3.4E-06	8.1E-05	3.0E-02	1.5E-05
Bromoform	75-25-2	3.9	5.3E-06	1.3E-04	4.6E-02	2.3E-05
Bromomethane	74-83-9	1.5	2.0E-06	4.9E-05	1.8E-02	8.9E-06
Carbon disulfide	75-15-0	11	1.5E-05	3.6E-04	1.3E-01	6.5E-05
Carbon tetrachloride	56-23-5	10	1.3E-05	3.2E-04	1.2E-01	5.9E-05
Chlorobenzene	108-90-7	6.9	9.3E-06	2.2E-04	8.1E-02	4.1E-05
Chloroform	67-66-3	110	1.5E-04	3.6E-03	1.3E+00	6.5E-04
Chloromethane	74-87-3	7.1	9.6E-06	2.3E-04	8.4E-02	4.2E-05
Dibromochloromethane	124-48-1	3.2	4.3E-06	1.0E-04	3.8E-02	1.9E-05
Ethyl chloride (chloroethane)	75-00-3	1.6	2.2E-06	5.2E-05	1.9E-02	9.4E-06
Ethylbenzene	100-41-4	380	5.1E-04	1.2E-02	4.5E+00	2.2E-03
Freon 11 (Trichlorofluoromethane)	75-69-4	7.1	9.6E-06	2.3E-04	8.4E-02	4.2E-05
Freon 113 (1,1,2-Trichloro-1,1,2-trifluoro	76-13-1	2.9	3.9E-06	9.4E-05	3.4E-02	1.7E-05
Freon 114 (1,2-Dichlorotetrafluoroethane	"	2.7	3.6E-06	8.7E-05	3.2E-02	1.6E-05
Freon 12 (Dichlorodifluoromethane)	75-71-8	22	3.0E-05	7.1E-04	2.6E-01	1.3E-04
Hexachloro-1,3-butadiene	87-68-3	4.1	5.5E-06	1.3E-04	4.8E-02	2.4E-05
Hexane, n-	110-54-3	1,100	1.5E-03	3.6E-02	1.3E+01	6.5E-03
Isopropyl alcohol (2-Propanol)	67-63-0	180	2.4E-04	5.8E-03	2.1E+00	1.1E-03
Methyl tert-butyl ether	1634-04-4	57	7.7E-05	1.8E-03	6.7E-01	3.4E-04
Methylene Chloride	75-09-2	12	1.6E-05	3.9E-04	1.4E-01	7.1E-05
Naphthalene	91-20-3	10	1.3E-05	3.2E-04	1.2E-01	5.9E-05
Styrene	100-42-5	1.6	2.2E-06	5.2E-05	1.9E-02	9.4E-06
Tetrachloroethene	127-18-4	270	3.6E-04	8.7E-03	3.2E+00	1.6E-03
Toluene	108-88-3	3300	4.4E-03	1.1E-01	3.9E+01	1.9E-02
Trichloroethene	79-01-6	20	2.7E-05	6.5E-04	2.4E-01	1.2E-04
Vinyl acetate	108-05-4	6.7	9.0E-06	2.2E-04	7.9E-02	4.0E-05
Vinyl Chloride (chloroethylene)	75-01-4	0.97	1.3E-06	3.1E-05	1.1E-02	5.7E-06
Xylenes	1330-20-7	2500	3.4E-03	8.1E-02	3.0E+01	1.5E-02

Notes:

2. It is assumed that equipment will operate 24 hours a day, 365 days a year.

Estimated organic emissions from the proposed SSD systems are shown in Table 2a for each source (S-1 through S-4) and in Table 2b for the total system (S-1, S-2, S-3, and S-4 combined) below.

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Table 2a. Unabated Organic Emissions Review for S-1, S-2, S-3, and S-4 each (Based on the Soil Characterization Test)

Pollutant	Effluent Volumetric Concentration (ppmv)	Emissions			
		Hourly (lbs./hour)	Daily (lbs./day)	Annual (lbs./year)	Annual (ton/year)
POC	13.1	0.01	0.1	25.6	0.013
NPOC	0.7	0.001	0.004	1.4	0.001
Total	13.7	0.01	0.1	27.0	0.014

Notes:
1. It is assumed that equipment will operate 24 hours a day, 365 days a year.
2. Non-Precursor Organic Compounds (NPOCs) have been determined based on Regulation 1-234 and 40 CFR 51.100(s)(1). NPOCs have negligible photochemical reactivity.
3. The POC annual emission rates for each proposed SSD systems (S-1 through S-4) will be rounded up to 26 lb./year and the NPOC annual emissions rate for each proposed SSD system will be rounded to be 2 lbs./year to be used as condition limit.

Table 2b. Unabated Organic Emissions Review for S-1, S-2, S-3, and S-4 combined (Based on the Soil Characterization Test)

Pollutant	Effluent Volumetric Concentration (ppmv)	Emissions			
		Hourly (lbs./hour)	Daily (lbs./day)	Annual (lbs./year)	Annual (ton/year)
POC	13.1	0.01	0.3	102.4	0.051
NPOC	0.7	0.001	0.02	5.4	0.003
Total	13.7	0.01	0.3	107.8	0.054

Notes:
1. It is assumed that equipment will operate 24 hours a day, 365 days a year.
2. Non-Precursor Organic Compounds (NPOCs) have been determined based on Regulation 1-234 and 40 CFR 51.100(s)(1). NPOCs have negligible photochemical reactivity.

Statement of Compliance

Regulation 2 (Permits), Rule 1 (General Requirements)

Section 2-1-412 (Public Notice, Schools & Overburdened Communities)

Prior to approving an application for an authority to construct or permit to operate, a public notice, fully describing the potential emissions, shall be prepared for the following cases:

(i) A new or modified source located within 1000 feet of the outer boundary of a K-12 school site and which results in the increase in emissions of any substance into the ambient air which has been identified by the California Air Resources Board or the APCO as a toxic air contaminant or a hazardous air contaminant or which is on the list required to be prepared pursuant to subdivision (a) of Section 25532 or Section 44321 subsections(a) to (f) inclusive of the Health and Safety Code.

(ii) A new or modified source located within an Overburdened Community as defined in Section 2-1-243 and for which a Health Risk Assessment is required pursuant to Section 2-5-401

This project is not located within the boundaries of an Overburdened Community (OBC) as defined in Regulation 2-1-243 and a Health Risk Assessment (HRA) is not triggered for this project, but this project is located within 1,000 feet of the following K-12 schools:

Crittenden Middle School at 1701 Rock Street, Mountain View, CA, 94043
Theuerkauf Elementary School at 1625 San Luis Avenue, Mountain View, CA, 94043

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Therefore, this project triggers K-12 school public notice per Section 2-1-412.
This project is also located within 0.25 mile of the following K-12 school:

Stevenson Elementary School at 750 San Pierre Way, Mountain View, CA, 94043

A public notice was prepared and sent to the aforementioned schools and all addresses within 1,000 feet of the proposed source.

Section 2-1-311 California Environmental Quality Act (CEQA)
This permit application is not subject to the California Environmental Quality Act (CEQA) because the Air District's evaluation is a ministerial action (Public Resources Code Section 21080(b)(1) and CEQA Guidelines Section 15268(a)) conducted using the fixed standards and objective measurements in the Air District's rules and regulations.

Regulation 2 (Permits), Rule 2 (New Source Review)
Section 2-2-208 Cumulative Increase
Per Section 2-2-208, cumulative increase is the increase in the potential to emit authorized by an authority to construct or permit to operate.

Cumulative emissions for the facility are shown in Table 3 below.

Table 3. Cumulative Increase

Pollutant	Current Permitted Emissions, Post 4/5/1991 (ton/year)	Application New Emissions Increase (ton/year)	New Cumulative Increase (ton/year)
POC	0.000	0.051	0.051

This is a new facility. Therefore, there are no existing emissions at this facility.

Section 2-2-301 Best Available Control Technology
In accordance with Regulation 2-2-301, Best Available Control Technology (BACT) is triggered for any new or modified source with the potential to emit 10.0 pounds or more per highest day of POC, NPOC, nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxides (SO_2), particulate matter less than 10 micrometer (PM_{10}) and particulate matter less than 2.5 micrometer ($PM_{2.5}$).

NPOC and POC emissions are expected to be below 10.0 pound per day for each SSD system (S-1 through S-4). Therefore, BACT is not required.

Section 2-2-302 / Section 2-2-303 Offsets
Pursuant to Regulation 2-2-302, offsets must be provided for any new or modified source at a facility that emits, or is permitted to emit, more than 10 tons per year of precursor organic compounds (POCs) or nitrogen oxides (NO_X). Furthermore, pursuant to Regulation 2-2-303 offsets must be provided for any new or modified source at a major facility with a cumulative increase that exceeds 1.0 ton per year of PM_{10}, $PM_{2.5}$, or sulfur dioxide (SO_2).

The site is not expected to have a PTE greater than 10 tons per year of POC or NO_X, nor is the site a major site of PM_{10}, $PM_{2.5}$, and SO_2. Therefore, the requirements of Regulations 2-2-302 and 2-2-303 do not apply.

Regulation 2, Rule 5 (New Source Review for Toxic Air Contaminants)
The requirements of Regulation 2, Rule 5 apply to a new or modified source of toxic air contaminants that is required to have an Authority to Construct or Permit to Operate pursuant to Regulation 2, Rule 1.

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Estimated toxic air contaminant emissions from the proposed S-1 through S-4 SSD systems are shown in Table 4 below.

Table 4. Toxic Air Contaminant Emissions Approved in Air District Authorities to Construct

Pollutant	CAS #	Hourly Emission Rate (lbs./hour)	Acute Trigger Level (lbs./hour)	Exceeds Acute Trigger Level?	Annual Emission Rate (lbs./year)	Chronic Trigger Level (lbs./year)	Exceeds Chronic Trigger Level?
1,1,1-Trichloroethane (Methyl Chloroform)	71-55-6	4.2E-06	3.0E+01	No	3.7E-02	3.9E+04	No
1,1,2,2-Tetrachloroethane	79-34-5	3.5E-06	N/A	No	3.1E-02	1.40E+00	No
1,1,2-Trichloroethane	79-00-5	2.8E-06	N/A	No	2.5E-02	5.00E+00	No
1,1-Dichloroethene	75-35-4	2.0E-06	N/A	No	1.8E-02	2.7E+03	No
1,2-Dibromoethane	106-93-4	3.9E-06	N/A	No	3.4E-02	1.10E+00	No
1,2-Dichloroethane	107-06-2	2.0E-06	N/A	No	1.8E-02	4.00E+00	No
1,4-Dichlorobenzene	106-46-7	3.1E-06	N/A	No	2.7E-02	7.20E+00	No
2-Butanone	78-93-3	6.1E-05	5.8E+00	No	5.3E-01	N/A	No
Benzene	71-43-2	2.7E-04	1.2E-02	No	2.4E+00	2.9E+00	No
Benzyl chloride	100-44-7	2.7E-06	1.10E-01	No	2.4E-02	1.70E+00	No
Bromomethane	74-83-9	2.0E-06	1.70E+00	No	1.8E-02	1.90E+02	No
Carbon disulfide	75-15-0	1.5E-05	2.7E+00	No	1.3E-01	3.1E+04	No
Carbon tetrachloride	56-23-5	1.3E-05	8.40E-01	No	1.2E-01	1.90E+00	No
Chlorobenzene	108-90-7	9.3E-06	N/A	No	8.1E-02	3.90E+04	No
Chloroform	67-66-3	1.5E-04	6.6E-02	No	1.3E+00	1.5E+01	No
Ethyl chloride (chloroethane)	75-00-3	2.2E-06	N/A	No	1.9E-02	1.20E+06	No
Ethylbenzene	100-41-4	5.1E-04	N/A	No	4.5E+00	3.3E+01	No
Hexane, n-	110-54-3	1.5E-03	N/A	No	1.3E+01	2.7E+05	No
Isopropyl alcohol (2-Propanol)	67-63-0	2.4E-04	1.4E+00	No	2.1E+00	2.7E+05	No
Methyl tert-butyl ether	1634-04-4	7.7E-05	N/A	No	6.7E-01	1.60E+02	No
Methylene Chloride	75-09-2	1.6E-05	6.2E+00	No	1.4E-01	8.2E+01	No
Naphthalene	91-20-3	1.3E-05	N/A	No	1.2E-01	2.4E+00	No
Styrene	100-42-5	2.2E-06	9.30E+00	No	1.9E-02	3.50E+04	No
Tetrachloroethene	127-18-4	3.6E-04	8.8E+00	No	3.2E+00	1.4E+01	No
Toluene	108-88-3	4.4E-03	2.2E+00	No	3.9E+01	1.6E+04	No
Trichloroethene	79-01-6	2.7E-05	N/A	No	2.4E-01	4.1E+01	No
Vinyl acetate	108-05-4	9.0E-06	N/A	No	7.9E-02	7.70E+03	No
Vinyl Chloride (chloroethylene)	75-01-4	1.3E-06	8.0E+01	No	1.1E-02	1.1E+00	No
Xylenes	1330-20-7	3.4E-03	9.7E+00	No	3.0E+01	2.7E+04	No

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At the given rates in Table 4, emissions do not exceed the Chronic Trigger Levels in Regulation 2-5, Table 2-5-1. Therefore, this project did not trigger a Health Risk Assessment (HRA).

Regulation 8 (Organic Compounds), Rule 47 (Air Stripping and Soil Vapor Extraction Operations)
Regulation 8-47-301 requires that any sub-slab depressurization operation which emits benzene, vinyl chloride, tetrachloroethene, methylene chloride, and/or trichloroethene shall be vented to a control device, which reduces emissions to the atmosphere by at least 90 percent by weight. However, Regulation 8-47-113 states that the provisions of Regulation 8-47-301 shall not apply to operations with total emissions of less than 1 pound per day of benzene, vinyl chloride, perchloroethylene, methylene chloride and/or trichloroethylene, provided the requirements of Section 8-47-402 are satisfied.

Regulation 8-47-402 requires that the facility submit a written request requesting to be exempt per Regulation 8-47-113. While Regulation 8-47-402 requires a "health risk screening analysis", the term is not defined. In the absence of other alternatives, Regulation 2-5 health risk assessment (HRA) standards are used to meet the "health risk screening analysis" requirement. The rules in Regulation 2 are to implement New Source Review, whereas Regulation 8, Rule 47 is a prohibitory rule.

The facility submitted a written request to operate under the Regulation 8-47-113 exemption on June 16, 2026. Table 2 of this evaluation report shows that the total daily emissions of all compounds do not exceed 1 pound per day. Therefore, the total daily emissions of total emissions of less than 1 pound per day of benzene, vinyl chloride, perchloroethylene, methylene chloride and/or trichloroethylene do not exceed 1 pound per day.

Table 4 shows that based on the soil characterization test conducted in January 2024, June 2024, July 2024, August 2024, and November 2024, the proposed project will not trigger a health risk assessment per Regulation 2-5. Therefore, this project complies with the requirements of Regulation 8-47-113 and 8-47-402.

Federal Regulations
Prevention of Significant Deterioration (PSD), New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAPS) do not apply to this project.

Permit Conditions

Permit Condition #100961 for S-1, S-2, S-3, and S-4

1. The influent vapor flow rate shall not exceed 90 scfm from each Sub-Slab Depressurization (SSD) System (S-1, S-2, S-3, and S-4) at any given time.

   [Basis: Cumulative Increase, Regulation 2-5]

2. In no event shall the toxic air contaminant (TAC) emissions to the atmosphere from all SSD systems (S-1, S-2, S-3, and S-4) combined exceed the trigger levels listed in District Regulation 2-5, Table 2-5-1.

   [Basis: Regulation 2-5]

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3. The owner/operator shall not emit from each SSD system (S-1, S-2, S-3, and S-4) more than 26 pounds of precursor organic compounds (POC) and 2 pounds of non-precursor organic compounds (NPOC) per 12-month consecutive period.

   [Basis: Cumulative Increase]

4. Upon initial start-up, the owner/operator shall take air samples from each SSD system (S-1, S-2, S-3, and S-4) for laboratory analysis using EPA Method TO-15. The air samples shall be taken at the following location:

   a. At the outlet of each SSD system (S-1, S-2, S-3, and S-4) venting to the atmosphere.

   [Basis: Regulation 2-1-403, Regulation 8-47-301]

5. The owner/operator shall use the results from the laboratory report to calculate the following:

   a. Organics (POC and NPOC) emissions to demonstrate compliance with Part 3.

   b. TAC emissions emitted to the atmosphere, using the maximum permitted flow rate of the SSD system (S-1, S-2, S-3, and S-4).

   [Basis: Regulation 2-1-403, Regulation 8-47-301].

6. The owner/operator shall maintain the following information for each month of operation:

   a. Hours and time of operation.
   b. Each emission test, analysis, or monitoring results logged in for the day of operation they were taken.
   c. Total throughput of soil vapor from each SSD system (S-1, S-2, S-3, and S-4) in standard cubic feet.

   Such records shall be retained and made available for inspection by the District for two (2) years following the date the data is recorded.

   [Basis: Recordkeeping]

7. The owner/operator shall submit the laboratory report and calculated TAC emissions within 21 days of the initial startup to demonstrate compliance with Parts 1 through 6 of this condition.

   [Basis: Regulation 2-1-403]

8. The owner/operator shall report any noncompliance with these conditions to the Compliance and Enforcement Division at the time that it is first discovered. The owner/operator shall detail the corrective action taken and include the data showing the exceedance as well as the time of occurrence in the submittal.

   [Basis: Regulation 2-1-403]

9. The owner/operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this condition. All measurements, records and data required to be maintained by the operator shall be retained for at least two (2) years following the date the data is recorded.

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[Basis: Regulation 8-47]

10. Upon final completion of the remediation project, the operator shall notify the Engineering Division within two weeks of decommissioning the operation.

    [Basis: Regulation 2-1-403]

Recommendation

The Air District has reviewed the material contained in the permit application for the proposed project and has made a preliminary determination that the project is expected to comply with all applicable requirements of Air District, state, and federal air quality-related regulations. The preliminary recommendation is to issue an Authority to Construct for the equipment listed below. However, the proposed sources are located within 1,000 feet of K-12 schools which triggers public notification requirements per Regulation 2-1-412. After the comments are received from the public and reviewed, the Air District will make a final determination on the permit.

I recommend that the Air District initiate public notice and consider any comments received prior to taking any final action on issuance of an Authority to Construct for the following equipment:

S-1 Sub Slab Depressurization System
Make: RadonAway, Model: EC6 Pro, Maximum 90 scfm.

One (1) blower

S-2 Sub Slab Depressurization System
Make: RadonAway, Model: EC6 Pro, Maximum 90 scfm.

One (1) blower

S-3 Sub Slab Depressurization System
Make: RadonAway, Model: EC6 Pro, Maximum 90 scfm.

One (1) blower

S-4 Sub Slab Depressurization System
Make: RadonAway, Model: EC6 Pro, Maximum 90 scfm.

One (1) blower

Total flow rate 360 scfm
No Abatement

Breana Lee, Air Quality Engineer I
July 15, 2026

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