

Written comments received:

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2. Commenter: Korynn Grenert (1 pg)

Commenter: Board of Water Supply

**BOARD OF WATER SUPPLY
KA 'OIHANA WAI
CITY AND COUNTY OF HONOLULU**

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September 12, 2024

Dr. Kenneth Fink
Director
State of Hawai'i
Department of Health
1250 Punchbowl Street
Honolulu, Hawai'i 96813

Attention: UST Rules

Dear Dr. Fink,

Subject: The State of Hawai'i Department of Health's Proposed Amendments of
Hawai'i Administrative Rules Chapter 11-280.1

The Honolulu Board of Water Supply (BWS) appreciates the opportunity to offer the following testimony regarding the subject proposed amendments by the State of Hawai'i Department of Health (DOH) to Hawai'i Administrative Rules Chapter 11-280.1, which regulates underground storage tanks.

The BWS supports the proposed introduction of a screening level to "methylnaphthalene, 1-" and "methylnaphthalene, 2-", and the reduction in screening level for "dichloroethylene, trans 1, 2-", "TPH-gasolines", "TPH-middle distillates", and "TPH-residual fuels", as reflected on proposed revision of Table 1 Tier 1 Screen Levels for Soil and Groundwater. The proposed introduction of screening levels and reduction in screening level for contaminants in soil and groundwater aligns with the BWS's mission to provide safe, dependable, and affordable drinking water now and into the future.

It is unclear why the screening levels of "dichloroethylene, cis 1,2-" increased from 0.36 to 1.8 mg/kg for soil in drinking water source threatened and soil in drinking water source not threatened. BWS urges the DOH to provide a scientific justification to the public on the proposed amendments, including all research and analysis used before adopting these rules.

Dr. Fink
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Thank you for the opportunity to comment. If you have any questions, please contact me at 808-748-5061.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Ernest Y. W. Lau', with a stylized flourish at the end.

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

cc: UST Rules
State of Hawai'i
Department of Health
2827 Waimano Home Road #100
Pearl City, Hawai'i 96782

The State of Hawaii Department of Health will hold a public hearing for the proposed amendment of Hawaii Administrative Rules chapter 11-280.1, which regulates underground storage tanks. The proposed changes align default criteria for remediation of contaminated soil and groundwater following a UST system release with the Department's updated Environmental Action Levels, correct typographical errors, clarify existing requirements, and better align with federal regulations.

The proposed amendments are posted online at health.hawaii.gov/shwb/ust-har and can be viewed at 2827 Waimano Home Rd #100, Pearl City, Mon-Fri, 8am-4pm (except state holidays). Copies will be mailed on request and payment of copy fee and postage; call 808-586-4226 to request.

The public hearing will be at 10am on September 12, 2024 at the State Lab auditorium at 2725 Waimano Home Rd, Pearl City. All interested parties may attend to present relevant information and individual opinion. To request an auxiliary aid or service (e.g., ASL interpreter, large print), call Lauren at 808-586-4226 (voice/TDD) or e-mail lauren.cruz@doh.hawaii.gov as soon as possible to allow adequate time to fulfill your request.

Anyone unable to attend may send written testimony to Attn: UST Rules 2827 Waimano Home Rd #100 Pearl City, HI 96782 or by email to both doh.ust@doh.hawaii.gov and noa.klein@doh.hawaii.gov. Testimony must be received by September 19, 2024.

List of changes [regarding amendment of Hawaii Administrative Rules chapter 11-280.1, which regulates underground storage tanks.](#)

- (1) Tier 1 screening levels for soil and groundwater for 1-methylnaphthalene and 2-methylnaphthalene are added to Table 1 in §11-280.1-65.3.
- (2) The following Tier 1 screening levels in Table 1 in §11-280.1-65.3 are updated:
 - (a) Dichloroethylene, cis 1,2-: soil screening levels for drinking water source threatened and drinking water source not threatened.
 - (b) Dichloroethylene, trans 1,2-: soil screening levels for drinking water source threatened and drinking water source not threatened.
 - (c) TPH-gasolines: groundwater screening level for drinking water source threatened.
 - (d) TPH-middle distillates: groundwater screening level for drinking water source threatened, soil screening levels for drinking water source threatened and drinking water source not threatened.
 - (e) TPH-residual fuels: groundwater screening level for drinking water source threatened.
- (3) The spelling of tetrachlorethylene is corrected in Table 1 in §11-280.1-65.3.
- (4) Non-substantive changes are made to clarify the options available for release detection methods for piping for airport hydrant fuel distribution systems and UST systems with field-constructed tanks with a capacity greater than 50,000 gallons (§11-280.1-41(b)(5)(A)).

Table 1. Tier 1 Screening Levels for Soil and Groundwater

Contaminant	DRINKING WATER SOURCE THREATENED				DRINKING WATER SOURCE NOT THREATENED			
	Groundwater (ug/l)	Basis ¹	Soil (mg/kg)	Basis ²	Groundwater (ug/l)	Basis ³	Soil (mg/kg)	Basis ²
Acenaphthene	N/A ⁴	-	120	L/VI	N/A ⁴	-	120	L/VI
Benzene	5.0	DWP	0.30	L	71	CAT	0.77	VI
Benzo(a)pyrene	N/A ⁴	-	3.6	DE	N/A ⁴	-	3.6	DE
Change #2 Dichloroethylene, cis 1,2-	70	DWP	[0.36] 1.8	VI	620	CAT	[0.36] 1.8	VI
Dichloroethylene, trans 1,2-	100	DWP	[3.6] 1.8	VI	560	CAT	[3.6] 1.8	VI
Ethylbenzene	7.3	CAT	0.90	L	7.3	CAT	0.90	L
Fluoranthene	N/A ⁴	-	87	L	N/A ⁴	-	87	L
Lead	5.6	CAT	200	DE	5.6	CAT	200	DE
Methyl Tert Butyl Ether (MTBE)	5.0	DWS	0.028	L	730	CAT	2.3	VI
Change #1 Methylnaphthalene, 1-	2.1	CAT	0.89	L	2.1	CAT	0.89	L
Methylnaphthalene, 2-	4.7	CAT	1.9	L	4.7	CAT	1.9	L
Naphthalene	12	CAT	3.1	L	12	CAT	3.1	L
Polychlorinated Biphenyls (PCBs)	N/A ⁴	-	1.2	DE	N/A ⁴	-	1.2	DE
Change #3 [Tetrachloethylene] Tetrachlorethylene (PCE)	5.0	DWP	0.098	VI	53	CAT	0.098	VI
Toluene	9.8	CAT	0.78	L	9.8	CAT	0.78	L
Change #2 TPH-gasolines	[300] 74	DWP	100	GC	500	CAT	100	GC
TPH-middle distillates	[400] 91	DWP	[220] 180	DE	640	CAT	[220] 180	DE
TPH-residual fuels	[500] 91	[DWS] DWP	500	GC	640	CAT	500	GC
Trichloroethylene	5.0	DWP	0.089	VI	47	CAT	0.089	VI

§11-280.1-65.3

Vinyl Chloride	2.0	DWP	0.036	VI	18	VI	0.036	VI
Xylenes	13	CAT	1.4	L	13	CAT	1.4	L

- 11-280.1-43(7); or
- (ii) Meet the standards in paragraph (6) (A) to (E).
- (3) Piping installed on or after August 9, 2013, for UST systems other than airport hydrant fuel distribution systems and UST systems with field-constructed tanks, must meet the technical specifications in paragraph (2) (A) or (B).
- (4) Piping for UST systems with field-constructed tanks with a capacity less than or equal to 50,000 gallons and not part of an airport hydrant fuel distribution system:
- (A) Piping installed before July 15, 2018 must meet the technical specifications in paragraph (1) (A) or (B).
- (B) Not later than July 15, 2038, piping installed before July 15, 2018 must meet the technical specifications in paragraph (2) (A) or (B), unless an alternative design is approved by the director under section 11-280.1-21(c).
- (C) Piping installed on or after July 15, 2018 must meet the technical specifications in paragraph (2) (A) or (B).
- (5) Piping for airport hydrant fuel distribution systems and UST systems with field-constructed tanks with a capacity greater than 50,000 gallons must meet one of the following:
- (A) Pressurized piping. Underground piping that conveys regulated substances under pressure must:
- (i) Be equipped with an automatic line leak detector conducted in accordance with section 11-280.1-44(1) [~~+~~] and [~~(ii) Have~~] have an annual line tightness test conducted in accordance with section 11-280.1-44(2) [~~+~~];

Change #4

- (ii) Be equipped with an automatic line leak detector conducted in accordance with section 11-280.1-44(1) and have monthly monitoring conducted in accordance with any of the methods in section 11-280.1-43(7) to (9) designed to detect a release from any portion of the underground piping that routinely contains regulated substances; or
 - (iii) Use one or a combination of the methods of release detection listed in section 11-280.1-44(4).
- (B) Suction piping. Underground piping that conveys regulated substances under suction must:
 - (i) Have a line tightness test conducted at least every three years and in accordance with section 11-280.1-44(2);
 - (ii) Use a monthly monitoring method conducted in accordance with section 11-280.1-43(7) to (9) designed to detect a release from any portion of the underground piping that routinely contains regulated substances;
 - (iii) Use one or a combination of the methods of release detection listed in section 11-280.1-44(4);
or
 - (iv) Meet the standards in paragraph (6) (A) to (E).
- (6) No release detection is required for suction piping that is designed and constructed to meet the following standards:
 - (A) The below-grade piping operates at less than atmospheric pressure;
 - (B) The below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the

As mentioned in Change #4

§11-280.1-44 Methods of release detection for piping. Each method of release detection for piping used to meet the requirements of sections 11-280.1-40 to 11-280.1-42 must be conducted in accordance with the following:

- (1) Automatic line leak detectors. Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping may be used only if they detect leaks of three gallons per hour at ten pounds per square inch line pressure within one hour. An annual test of the operation of the leak detector must be conducted in accordance with section 11-280.1-40(a)(4).
- (2) Line tightness testing. A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure.
- (3) Applicable tank methods. Any of the methods in section 11-280.1-43(5) to (9) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.
- (4) Methods of release detection for piping associated with airport hydrant systems and field-constructed tanks. One or a combination of the following methods of release detection for piping may be used when allowed by section 11-280.1-41.
 - (A) (i) Perform a semiannual or annual line tightness test at or above the piping operating pressure in accordance with the table below.

MAXIMUM LEAK DETECTION RATE PER TEST SECTION VOLUME

Test section volume (gallons)	Semiannual test—leak detection rate not to exceed (gallons per hour)	Annual test—leak detection rate not to exceed (gallons per hour)
<50,000	1.0	0.5
≥50,000 to <75,000	1.5	0.75
≥75,000 to <100,000	2.0	1.0
≥100,000	3.0	1.5

- (ii) Piping segment volumes ≥100,000 gallons not capable of meeting the maximum 3.0 gallon per hour leak rate for the semiannual test may be tested at a leak rate up to 6.0 gallons per hour according to the following schedule:

PHASE IN FOR PIPING SEGMENTS ≥100,000 GALLONS IN VOLUME

First test	Not later than July 15, 2021 (may use up to 6.0 gph leak rate).
Second test	Between July 15, 2021 and July 15, 2024 (may use up to 6.0 gph leak rate).
Third test	Between July 15, 2024 and July 15, 2025 (must use 3.0 gph for leak rate).
Subsequent tests ..	Not later than July 15, 2025 begin using semiannual or annual line testing according to the Maximum Leak Detection Rate Per Test Section Volume table above.

- (B) Perform vapor monitoring (conducted in accordance with section 11-280.1-43(5) for a tracer compound placed in the tank system) capable of detecting a 0.1 gallon per hour leak rate at least every two years;
- (C) Perform inventory control (conducted in accordance with Department of Defense Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures) at least every thirty-one

days that can detect a leak equal to or less than 0.5 percent of flow-through; and

- (i) Perform a line tightness test (conducted in accordance with subparagraph (A) using the leak rates for the semiannual test) at least every two years; or
 - (ii) Perform vapor monitoring or groundwater monitoring (conducted in accordance with section 11-280.1-43(5) or (6), respectively, for the stored regulated substance) at least every thirty-one days; or
- (D) Another method approved by the department if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in subparagraphs (A) to (C). In comparing methods, the department shall consider the size of release that the method can detect and the frequency and reliability of detection. [Eff 7/15/18; comp 1/17/20; am and comp 7/8/21; comp]
(Auth: HRS §§342L-3, 342L-32, 342L-33)
(Imp: HRS §§342L-3, 342L-32, 342L-33)

§11-280.1-45 Release detection recordkeeping.

All UST system owners and operators must maintain records in accordance with section 11-280.1-34 demonstrating compliance with all applicable requirements of this subchapter. These records must include the following:

- (1) All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be

Commenter: Korynn Grenert

Testimony for DOH's proposed changes to HAR chapter 11-280.1

Good morning, Noa Klein and the Hawai'i State Department of Health.

My name is Korynn Grenert, and I am a law student at the William S. Richardson School of Law. My enrollment in an Administrative Law class led me to DOH's public hearing on September 12, 2024.

I am emailing you today with testimony regarding the proposed amendment of Hawaii Administrative Rules chapter 11-280.1. After attending the public hearing, listening to public commentary, and researching the implications of the proposed amendments, I oppose the increased levels allowed in soil for Dichloroethylene, cis 1,2- from 0.36 (mg/kg) to 1.8 (mg/kg). According to [oregon.gov](https://www.oregon.gov), the official website for the state of Oregon, consuming water with high levels of cis-1,2- dichloroethylene over a long time can cause health effects including liver and kidney problems, drowsiness and nausea, and cardiovascular issues. Oregon Health Authority, Public Health Division. (2015, April). *Health Effects: cis-1,2-Dichloroethylene (cis-1,2-DCE)*. https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/MONITORING/Documents/health/dce_cis-1,2-.pdf. Also according to Oregon's Public Health Division website, soil and groundwater with high levels of Dichloroethylene, cis 1,2- should not be used to bathe or to irrigate a yard with, much less to drink. Dichloroethylene, cis 1,2-'s ability to absorb through human skin and travel through soil to contaminate groundwater makes it even more important that this chemical is limited by law to low amounts in our soil.

What's more, with fresh water in Hawai'i being such a sensitive subject after over 19,000 gallons of JP-5 jet fuel leaked and contaminated the Red Hill drinking water well in 2021, I believe it unwise for the Hawai'i State Department of Health to increase without explanation the allowance of any toxic substance in Hawai'i's groundwater or soil. United States Environmental Protection Agency. (2024, August 20). *About the Red Hill Fuel Releases*. <https://www.epa.gov/red-hill/about-fuel-releases>. Furthermore, the U.S. EPA has established a maximum contaminant level of 70 ug/L for drinking water for cis-1,2-dichloroethene. New York State – Human Health Fact Sheet (1998, March 12). Ambient Water Quality Value for Protection of Sources of Potable Water. https://www.epa.gov/sites/default/files/2015-06/documents/ny_hh_471_w_03121998.pdf. 70 ug/L translates to 0.7 mg/kg, making DOH's proposed soil allowance level (1.8 mg/kg) more than double what the EPA allows in drinking water. With the uncertainty and various factors affecting how much of the chemical can leak from the soil into groundwater, the DOH should retain the former allowed level of cis-1,2-dichloroethene (0.36 mg/kg).

In closing, I oppose the proposed amendment to HAR chapter 11-280.1 allowing for increased levels of Dichloroethylene, cis 1,2-. in Hawai'i's soil.

Thank you very much for allowing me to submit testimony on this matter and for considering my testimony in your decision. If you would like to contact me regarding my testimony, please email me at [email redacted] or call me at [phone redacted]. Thank you.

Sincerely, Korynn Grenert