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U.S. EPA, Region 9



EXECUTIVE CHAMBERS

HONOLULU

September 11, 2009

LINDA LINGLE
GOVERNOR

Ms. Laura Yoshi
Acting Regional Administrator
U.S. EPA, Region IX
75 Hawthorne Street
San Francisco, California 94105

Dear Ms. Yoshi:

SUBJECT: Recommended Designation for the Revised Federal Primary and Secondary Lead (Pb) National Ambient Air Quality Standards

Pursuant to Section 107(d)(1)(A) of the Clean Air Act, I am recommending that the State of Hawaii be designated in attainment of the revised primary and secondary Pb National Ambient Air Quality Standards (NAAQS). The Department of Health (DOH), which manages the ambient air monitoring network, has determined that the quality-assured and certified Pb data for the calendar years 2006 through 2008 is in attainment with the federal three-month average Pb standards.

The state operates one Federal Reference Method sampler for the collection of Pb data as part of the Air Toxics Special Purpose Monitoring program. Attachment I provides the data used for the calculation of the three-month standard design value. The maximum arithmetic three-month mean concentration for the latest three-year period of 2006 to 2008, as determined in accordance with 40 CFR Part 50 Appendix R, is 0.01 micrograms per cubic meter. This is well below the revised Pb NAAQS of 0.15 micrograms per cubic meter. Also, the station had an average 99 percent data capture rate for Pb which met the 75 percent data completeness requirement.

Additionally, the revised 40 CFR Part 58 Appendix D requires, at a minimum, there be one source-oriented State and Local Air Monitoring Station located to measure the maximum Pb concentration in ambient air resulting from each Pb source which emits 1.0 or more tons per year (tpy) based on the most recent National Emissions Inventory (NEI). Attachment II provides the latest validated NEI that shows no source emitting over 1.0 tpy in the State of Hawaii, and therefore additional source Pb monitoring will not be required. This information was also provided in the State of Hawaii 2009 Air Monitoring Network Plan submitted to EPA Region IX on June 12, 2009.

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Based on continuous compliance with the NAAQS and ongoing monitoring of air pollution sources, the state has determined that there are no anticipated changes or activities that would cause a significant variation from the currently measured Pb values. We therefore ask for EPA's consideration of our recommendation for attainment of the revised Pb standards.

We look forward to working with EPA, Region IX, on the final designation for this public health and environmental issue. If you have any questions, please contact Mr. Wilfred Nagamine at the DOH, Clean Air Branch, at (808) 586-4200.

Sincerely,



LINDA LINGLE

Attachments

c: Deborah Jordan, Director, Air Division (AIR-1), U.S. EPA, Region IX
Joe Lapka, Acting Manager, Technical Support Office (AIR-7), U.S. EPA, Region IX

ATTACHMENT I

State of Hawaii

Attainment of the Revised Lead National Ambient Air Quality Standards (NAAQS)

I. Introduction

The EPA significantly strengthened the level and form of the lead (Pb) standards in a rule effective October 15, 2008. The primary (health-based) standard was revised from 1.5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in each calendar quarter to $0.15 \mu\text{g}/\text{m}^3$ in each rolling three-month period. The secondary (welfare-based) standard was also revised to be identical to the primary standard.

In October 1997, the EPA approved discontinuance of Pb ambient air monitoring for Hawaii due to consistent almost non-detectable levels since monitoring began for this pollutant. However, since 2002, Pb monitoring has been conducted as part of the Air Toxics special purpose monitoring program. The Air Toxics Total Suspended Particulate (TSP) sampler is located at the Pearl City air monitoring station in the Honolulu MSA.

Pursuant to the Clean Air Act 107(d) (1) (A), states are required to make attainment or nonattainment recommendations one year after promulgation of a new standard. This document provides Pb data collected at the Pearl City station supporting attainment of the revised standard for the state of Hawaii.

II. Attainment of the October 2008 Revised Pb NAAQS

A. Pb Sampling and Analysis Methods

Table 1. Summary of Pb Sampling in the State of Hawaii

Parameter (AQS Code)	Sampling Method (AQS code)	Sampling Schedule	Analysis Method	Sampling location (AIRS ID) and start date
Lead (12128)	Hi-Volume TSP (092)	24-hours once every 6 days	Graphite Furnace Atomic Absorption Spectroscopy	Pearl City, Hawaii (150032004) January 2002

B. Data Computation

All data handling conventions and computations used were according to 40 CFR 50 Appendix R: Interpretation of the National Ambient Air Quality Standards for Lead.

Quality assured and certified Pb data collected in the most recent three years (2006 to 2008) were used to determine attainment of the revised standards.

Data computation requirements and results:

Calculations

- 1) Average all the daily values in the month (not rounded);
- 2) Calculate the 3-month averages on a rolling basis, beginning with November 2005 (rounded to the nearest 0.xx);
- 3) Determine the design value as the highest 3-month average in the 38-month period.

Table 2. Rolling Three-Month Averages for Data Years 2006 to 2008 ($\mu\text{g}/\text{m}^3$)

Year	Nov-Jan	Dec-Feb	Jan-Mar	Feb-April	Mar-May	April-June	May-July	June-Aug	July-Sept	Aug-Oct	Sept-Nov	Oct-Dec
2006	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
2007	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2008	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The design value of Pb for the latest three years of data (2006 to 2008) was $0.01 \mu\text{g}/\text{m}^3$.

Data Completeness

- 1) Each 3-month period must be $\geq 75\%$ complete:
 - a. calculate the monthly data capture (no. creditable samples/no. scheduled samples) x 100 (not rounded);
 - b. calculate the 3-month data capture rate (rounded to nearest integer).

Table 3. Rolling Three-Month Data Capture Rate (Percent)

Year	Nov-Jan	Dec-Feb	Jan-Mar	Feb-April	Mar-May	April-June	May-July	June-Aug	July-Sept	Aug-Oct	Sept-Nov	Oct-Dec
2006	80	100	100	100	80	100	100	100	100	100	100	100
2007	100	100	100	100	100	100	100	100	100	100	100	100
2008	100	100	100	100	100	100	100	100	100	100	100	80

All 3-month periods used in calculating the design value (2006 to 2008) met the data capture requirement of $\geq 75\%$ completeness. The average 3-month data capture rate was 99%.

C. Data Summary

The highest 3-month design value in 2006 to 2008 was $0.01 \mu\text{g}/\text{m}^3$, well below the revised standard of $0.15 \mu\text{g}/\text{m}^3$. All periods met the data capture requirement of $\geq 75\%$ completeness.

Hawaii is in attainment of the revised Pb NAAQS.

ATTACHMENT II

2005 Emissions Inventory for the State of Hawaii

Attached is the latest validated National Emissions Inventory submitted to EPA. The highest lead emissions source in the state was HPOWER (Covanta Honolulu Resource Recovery Venture), a large municipal waste combustor, with lead emissions of 0.47 tons.

There are no facilities in the state of Hawaii that emit 1 ton or more of lead per year and therefore, source monitoring will not be required.

Emissions for Point Sources by Facility Top 10



Inventory Year: 2005

Period Class: ANNUAL (Jan 01 to Dec 31)

Emission Unit: [tons]

Emission Type: ENTIRE PERIOD - ACTUAL

Hawaii

7439921 - LEAD

Rank	Company Name	Facility Name	FID	Location Name	Emissions	% of Total
1		HPOWER		Oahu Island	0.47	38.21%
2		HECO - Kahe Power Plant		Oahu Island	0.18	14.35%
3		AES Hawaii, Inc.		Oahu Island	0.13	10.44%
4		Kalaeloa Cogeneration Plant		Oahu Island	0.09	7.18%
5		HECO - Waiiau Power Plant		Oahu Island	0.08	6.38%
6		MECO - Maalaea Generating Station		Maui Island	0.06	5.05%
7		Maui Pineapple Co.		Maui Island	0.06	4.70%
8		Chevron Hawaii Refinery		Oahu Island	0.06	4.59%
9		Tesoro - Campbell Industrial Park & Barbers		Oahu Island	0.03	2.12%
10		HELCO - Kaneohehua Hill Generating Station		Hawaii Island	0.02	1.78%
Total Emissions:					1.17 [tons]	94.79%

7439921 Emission Total: 1.23 [tons]

Emissions for Point Sources by Facility Top 10

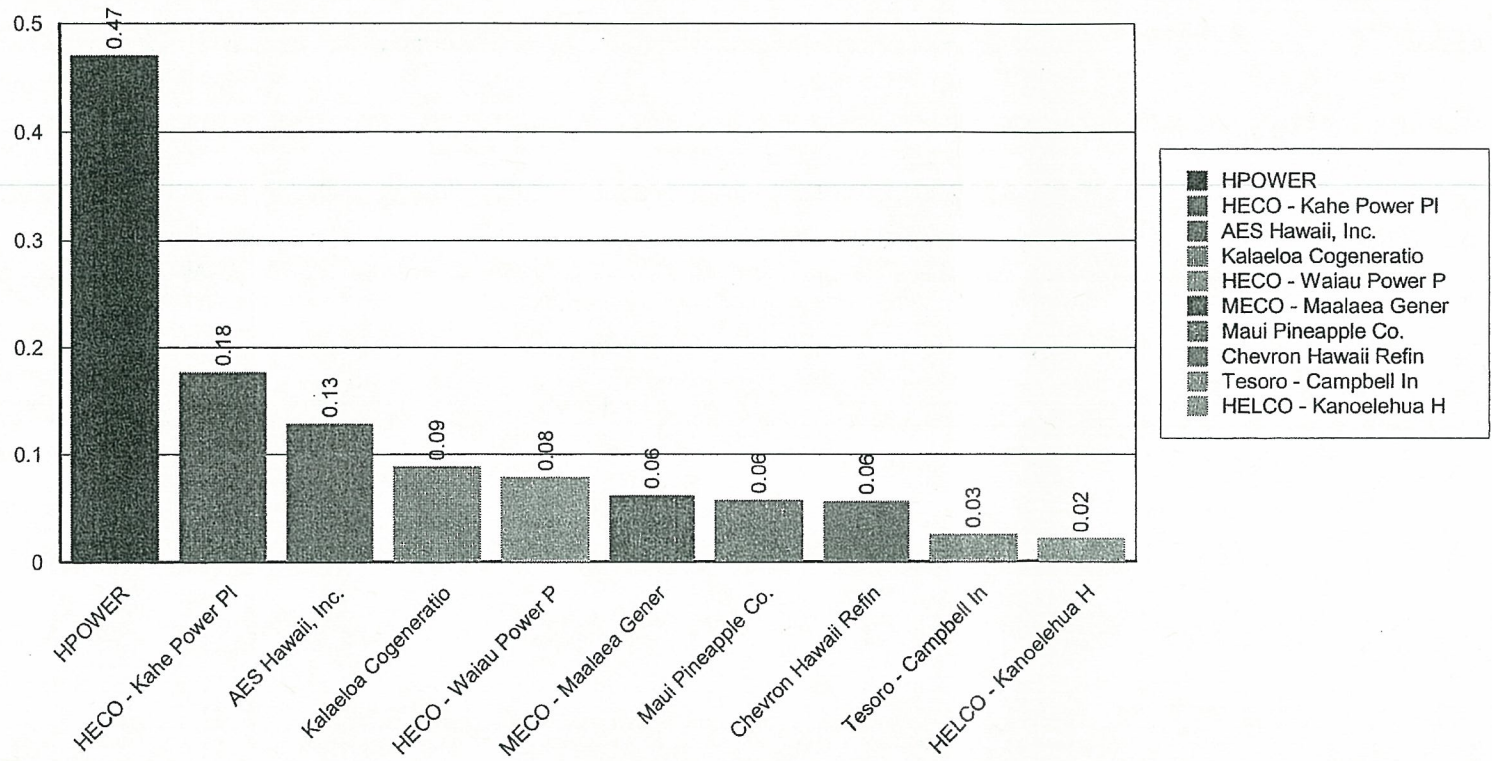


Inventory Year: 2005
Emission Unit: [tons]

Period Class: ANNUAL (Jan 01 to Dec 31)
Emission Type: ENTIRE PERIOD - ACTUAL

Hawaii

7439921 - LEAD



Total Emissions: 1.17 [tons]