
HOUSE RESOLUTION

REQUESTING A REVIEW OF AMBIENT AIR STANDARDS FOR HYDROGEN
SULFIDE EMISSIONS TO SUSTAIN AND PROTECT THE NATURAL BEAUTY
AND AIR QUALITY OF THE STATE.

1 WHEREAS, hydrogen sulfide is a harmful and potentially
2 lethal poison and is recognizable by its distinctive "rotten
3 egg" odor; and
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5 WHEREAS, hydrogen sulfide is created during the breakdown
6 of organic materials and is a common by-product of sewage
7 treatment facilities; and
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9 WHEREAS, when Hawaii's existing ambient air quality
10 standard for hydrogen sulfide was established in 1992, it was
11 set at a level that "protected individuals from both adverse
12 health effects and odor nuisance," according to Dr. John C.
13 Lewin, the then Director of Health; and
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15 WHEREAS, in establishing the current 25 parts per billion
16 (ppb) standard, the Department of Health (DOH), according to its
17 1992 press release that announced the new standard, took into
18 consideration:
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20 (1) Toxicological research on hydrogen sulfide that
21 discovered for the first time physical effects on
22 humans and rats at 10,000 ppb, more than 400 times
23 higher than the 25 ppb standard;
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25 (2) The level of detection for odor in sensitive people
26 that has been established at five ppb, and studies
27 that have documented that people "become annoyed" when
28 hydrogen sulfide levels are about five times the level
29 of detection, i.e., 25 ppb;



1 (3) Hawaii's standard that is equivalent or slightly
2 stricter than California's standard, which has served
3 California well for over several decades of geothermal
4 development and remains set at 30 ppb today; and
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6 (4) The Director of Health's authorization to establish
7 stricter controls in specific permits where
8 circumstances warrant such actions;
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10 and
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12 WHEREAS, it has been found that hydrogen sulfide can be
13 detected and recognized even at very low concentrations, and it
14 is estimated that half of all people can recognize the smell of
15 hydrogen sulfide at a concentration as low as four and four
16 tenths ppb; and
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18 WHEREAS, studies have found that ambient air concentrations
19 as low as seven to ten ppb can cause symptoms such as headaches
20 and eye and throat irritations and that children are more
21 sensitive to hydrogen sulfide and may experience health effects
22 at lower exposure levels; and
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24 WHEREAS, DOH currently allows ambient air concentrations of
25 hydrogen sulfide which do not exceed an average of 25 ppb in any
26 one-hour period; and
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28 WHEREAS, the World Health Organization recommends that, to
29 avoid substantial complaints about odor annoyance, hydrogen
30 sulfide concentrations should not be allowed to exceed five ppb
31 on average over any 30-minute period; and
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33 WHEREAS, DOH ambient air standard is currently five times
34 this level averaged over a longer one-hour period; now,
35 therefore,
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37 BE IT RESOLVED by the House of Representatives of the
38 Twenty-fourth Legislature of the State of Hawaii, Regular
39 Session of 2007, that DOH is urged to review its existing
40 ambient air standards for public exposure to hydrogen sulfide
41 emissions with the goal of reducing applicable standards to
42 further protect the public; and



- 1 BE IT FURTHER RESOLVED that a certified copy of this
- 2 Resolution be transmitted to the Director of Health.

