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# HOUSE CONCURRENT 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, the Senate concurring, that DOH is urged to  
40 review its existing ambient air standards for public exposure to  
41 hydrogen sulfide emissions with the goal of reducing applicable  
42 standards to further protect the public; and



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

