

JAN 20 2023

A BILL FOR AN ACT

RELATING TO ENERGY EFFICIENCY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that there have been many
2 advances in the energy efficiency of lighting. Fluorescent
3 bulbs were promoted in the 1980s because they are up to thirty-
4 five per cent more energy efficient than the incandescent light
5 fixtures widely in use at that time; however, further advances
6 have been made with light-emitting diodes (LEDs) that are now up
7 to eighty per cent more energy efficient than fluorescent bulbs
8 and can last three to five times longer than fluorescent bulbs
9 and thirty times longer than incandescent bulbs.

10 The legislature further finds that all fluorescent bulbs
11 contain mercury, a toxic pollutant that bioaccumulates in the
12 environment, can pollute air and water, and causes harm to
13 wildlife and human health. The legislature notes that mercury-
14 free alternatives exist for most of the thousands of products
15 that contain mercury components.

16 The legislature believes that LEDs are a better alternative
17 because they do not contain any mercury, are more energy



1 efficient, and are the cheaper life-cycle cost lighting option
2 for consumers and businesses. Phasing out the sale of mercury-
3 containing bulbs in Hawaii will prevent additional toxic
4 pollutants from being brought into the State's ecosystem, reduce
5 energy use, and save consumer dollars.

6 Accordingly, the purpose of this act is to prohibit the
7 sale of certain fluorescent lamps in the State as a new
8 manufactured product, with certain exemptions.

9 SECTION 2. Chapter 196, Hawaii Revised Statutes, is
10 amended by adding a new part to be appropriately designated and
11 to read as follows:

12 **"PART . FLUORESCENT LAMPS**

13 **§196- Definitions.** As used in this part, unless the
14 context otherwise requires:

15 "Compact fluorescent lamp" means a compact low-pressure,
16 mercury-containing, electric-discharge light source in which a
17 fluorescent coating transforms some of the ultraviolet energy
18 generated by the mercury discharge into visible light, and
19 includes the following characteristics:

- 20 (1) One base (end cap) of any type, including but not
21 limited to screw, bayonet, two pins, and four pins;



- 1 (2) Integrally ballasted or non-integrally ballasted;
- 2 (3) Light emission between a correlated color temperature
- 3 of one thousand seven hundred Kelvin and twenty-four
- 4 thousand Kelvin and a Duv of +0.024 and -0.024 in the
- 5 International Commission on Illumination Uniform Color
- 6 Space;
- 7 (4) All tube diameters and all tube lengths; and
- 8 (5) All lamp sizes and shapes for directional and
- 9 nondirectional installations, including but not
- 10 limited to plug-in, spiral, twin tube, triple twin,
- 11 2D, U-bend, and circular.

12 "Linear fluorescent lamp" means a low-pressure, mercury-
13 containing, electric-discharge light source in which a
14 fluorescent coating transforms some of the ultraviolet energy
15 generated by the mercury discharge into visible light, and
16 includes all of the following characteristics:

- 17 (1) Two bases (end caps) of any type, including but not
- 18 limited to single-pin, two-pin, and recessed double
- 19 contact;
- 20 (2) Light emission between a correlated color temperature
- 21 of one thousand seven hundred Kelvin and twenty-four



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1 thousand Kelvin and a Duv of +0.024 and -0.024 in the
 2 International Commission on Illumination Uniform Color
 3 Space;

4 (3) All tube diameters, including but not limited to T5,
 5 T8, T10, and T12;

6 (4) All tube lengths from 0.5 to eight feet, inclusive;
 7 and

8 (5) All lamp shapes, including but not limited to linear,
 9 U-bend, and circular.

10 **§196- Fluorescent lamps; mercury-containing lighting;**

11 **prohibited.** It shall be unlawful to sell, offer for sale, or
 12 distribute for sale in the State as a new manufactured product:

13 (1) Beginning January 1, , a screw or bayonet base
 14 type compact fluorescent lamp; and

15 (2) Beginning January 1, , a pin-base type compact
 16 fluorescent lamp or linear fluorescent lamp.

17 **§196- Exemptions.** This part shall not apply to a lamp:

18 (1) Used for image capture and projection, including
 19 photocopying, printing, directly or in preprocessing,
 20 lithography, film and video projection, and
 21 holography;



- 1 (2) That has a high proportion of ultraviolet light
2 emission and is one of the following:
- 3 (A) A lamp with high ultraviolet content that has
4 ultraviolet power greater than two milliwatts per
5 kilolumen;
- 6 (B) A lamp for germicidal use, such as the
7 destruction of DNA, that emits a peak radiation
8 of approximately 253.7 nanometers;
- 9 (C) A lamp used for disinfection or fly trapping from
10 which either the radiation power emitted between
11 two hundred fifty and three hundred fifteen
12 nanometers represents at least five per cent of,
13 or the radiation power emitted between three
14 hundred fifteen and four hundred nanometers
15 represents at least twenty per cent of, the total
16 radiation power emitted between two hundred fifty
17 and eight hundred nanometers;
- 18 (D) A lamp used for the generation of ozone where the
19 primary purpose is to emit radiation at
20 approximately 185.1 nanometers;



- 1 (E) A lamp used for coral zooxanthellae symbiosis
- 2 from which the radiation power emitted between
- 3 four hundred and four hundred eighty nanometers
- 4 represents at least forty per cent of the total
- 5 radiation power emitted between two hundred fifty
- 6 and eight hundred nanometers; or
- 7 (F) Any lamp used in a sunlamp product. For the
- 8 purposes of this subparagraph, "sunlamp product"
- 9 has the same meaning as defined in title 21 Code
- 10 of Federal Regulations section 1040.20(b)(9);
- 11 (3) Used for medical or veterinary diagnosis or treatment
- 12 or used in a medical device;
- 13 (4) Used in pharmaceutical product manufacturing or
- 14 quality control;
- 15 (5) Used for spectroscopy and photometric applications,
- 16 such as ultraviolet-visible spectroscopy, molecular
- 17 spectroscopy, atomic absorption spectroscopy,
- 18 nondispersive infrared, Fourier transform infrared,
- 19 medical analysis, ellipsometry, layer thickness
- 20 measurement, process monitoring, or environmental
- 21 monitoring; or

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1 (6) Used by academic and research institutions exclusively
2 for conducting research projects and experiments."

3 SECTION 3. This Act shall take effect upon its approval.

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INTRODUCED BY:

Karl Rhoad



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Report Title:

Fluorescent Lamps; Mercury-containing Lighting; Sales; Compact Fluorescent Lamps; Linear Fluorescent Lamps; Prohibition

Description:

Prohibits the sale of certain fluorescent lamps as a new manufactured product, with certain exemptions.

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