

1 March 21, 2003

2  
3 Before the Board of Health of King County, State of Washington

4  
5 RULES AND REGULATIONS NO. 03-4

6  
7 An amendment for the protection of the public health from exposure to  
8 mercury; revising Title 10 of the Code of the King County Board of Health,  
9 enacted pursuant to RCW 70.05.060 including the latest amendments and  
10 revisions thereto.

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12 BE IT ADOPTED BY THE KING COUNTY BOARD OF HEALTH:

13 **SECTION 1.** There is hereby added a new chapter to Title 10 of the Code  
14 of the King County Board of Health to read as follows:

15 **Chapter 10.88**

16 **Mercury Fever Thermometer Sales Prohibition**

17 **Sections:**

18 10.88.010 Purpose and Findings

19  
20 10.88.020 Definitions

21  
22 10.88.030 Applicability

23  
24 10.88.040 Prohibitions

25  
26 10.88.050 Monitoring and Enforcement

27  
28 10.88.060 Penalties

29  
30 10.88.065 Severability

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32 **10.88.010 Purpose and Findings.** A. Statement of Purpose. The purpose of this  
33 chapter is to protect human health and the environment from exposure to mercury by  
34 banning the sale of mercury fever thermometers.

35 B. Findings.

1           1.       Mercury is a highly toxic, naturally occurring heavy metal that moves  
2 between water, air and soil as a result of natural and human activities. It is a persistent and  
3 bioaccumulative substance that can damage the central nervous system, especially during  
4 fetal and childhood development.

5           2.       The general public is primarily exposed to mercury's toxic effects through  
6 the ingestion of fish that have been contaminated with mercury. Approximately 95% of  
7 the mercury found in fish is in the form of methylmercury, a neurotoxin and a particularly  
8 toxic form of mercury. Because methylmercury is a neurotoxin (particularly toxic to the  
9 developing nervous system), unborn fetuses and young children are especially susceptible  
10 to mercury's toxic effects.

11          3.       40 states, including Washington, have issued fish advisories that warn  
12 certain individuals to restrict or avoid consuming mercury-contaminated fish. The  
13 Washington State Department of Health advises women of childbearing age and children  
14 under the age of six not to eat any shark, swordfish, tilefish, king mackerel, or fresh or  
15 frozen tuna steaks and to limit the amount of canned tuna eaten, based on bodyweight.

16          4.       A 2000 National Academy of Sciences report concluded that "available  
17 consumption data and current population and fertility rates indicate that over 60,000  
18 newborns annually might be at risk for adverse neurodevelopmental effects from in utero  
19 exposure to methylmercury." In March 2001, based on data from the Centers for Disease  
20 Control, the US Environmental Protection Agency estimated that 10% of US women of  
21 child-bearing age have levels of mercury that double their risk of having babies born with  
22 mental or neurological problems.

1           5.       Exposure can occur by inhalation of or bodily contact with elemental  
2 mercury from a broken product (e.g., mercury fever thermometer) or from a manufacturing  
3 process. In these cases, mercury can be in its elemental form or combined with an  
4 inorganic element or compound.

5           6.       Acute mercury exposure can cause headaches, salivation, a metallic taste in  
6 the mouth, chills, cough, fever tremors, abdominal cramps, diarrhea, nausea, vomiting,  
7 chest tightness, difficulty breathing, fatigue and/or lung irritation. Chronic mercury  
8 exposure can cause central nervous system effects, kidney damage and/or birth defects.

9           7.       When a mercury thermometer breaks during use, the mercury vaporizes,  
10 posing a health risk to humans. Mercury that volatilizes enters the environment and can be  
11 deposited in lakes and rivers. Each mercury thermometer contains approximately 1 gram  
12 of mercury.

13          8.       Nationally, mercury fever thermometers discarded in the garbage  
14 contributed 17 tons of mercury to the solid waste stream annually.

15          9.       In King County, according to survey data collected in 2001, 43 percent of  
16 King County households have one or more mercury fever thermometers. An estimated  
17 300,000 mercury fever thermometers containing approximately 300 pounds of mercury  
18 exist in King County homes. These thermometers may be discarded to King County's  
19 landfill or wastewater treatment facilities.

20          10.      Several states and cities around the world have demonstrated that removal  
21 of mercury-containing products, such as mercury fever thermometers, from the waste  
22 stream is an effective way to reduce mercury contamination. The U.S. Environmental

1 Protection Agency, the American Hospital Association and the American Public Health  
2 Association are currently implementing programs to eliminate mercury waste.

3 11. There are accurate and safe alternatives to mercury fever thermometers that  
4 are readily available and comparable in cost.

5 **10.88.020 Definition.** The term Mercury fever thermometer for purposes of this Chapter  
6 means a mercury-containing product used for measuring body temperature. An electronic  
7 thermometer with a button battery containing mercury is not considered to be a mercury  
8 fever thermometer under this rule.

9 **10.88.030 Applicability.** The requirements of this chapter apply to all persons, including  
10 retail establishments.

11 **10.88.040 Prohibitions.** No person may sell mercury fever thermometers in King  
12 County unless the mercury thermometer is prescribed for a condition that requires such a  
13 thermometer. Any mercury thermometer sold through prescription shall be accompanied  
14 by written instructions, furnished by the Local Hazardous Waste Management Program in  
15 King County, on how to avoid breakage and on proper cleanup should breakage occur.

16 **10.88.050 Enforcement.** This chapter shall be enforced by the health officer in  
17 accordance with the provisions of this chapter and Chapter 1.08 of this Code.

18 **10.88.060 Penalties.** Any person who sells a mercury fever thermometer in violation of  
19 the provisions of this chapter shall be subject to a civil penalty in accordance with Chapter  
20 1.08 of this Code.

21 **10.88.065 Severability.** If any part or provision of this regulation, or the application  
22 thereof to any person or circumstance, is held invalid, the remainder of this rule, including

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the application of such part or provision to other persons or circumstances, shall not be affected thereby and shall continue in full force and effect. To this end, the provisions of this rule are severable.

Adopted this  21st  day of  March , 2003.

KING COUNTY BOARD OF HEALTH  
KING COUNTY, WASHINGTON

s/Carolyn Edmonds/s   
Chair

ATTEST:

s/Alonzo Plough/s   
Director of Health