RESOLUTION NO. 60,196-N.S.

AUTHORIZING THE CITY MANAGER TO TAKE THE FOLLOWING ACTIONS TO ELIMINATE ANTHROPOGENIC SOURCES OF DIOXIN POLLUTION.

RESOLVED, that the City of Berkeley intends by this resolution to eliminate anthropogenic sources of dioxin pollution;

1. Whereas, the term dioxin represents a group of chemicals which includes furan and biphenyl compounds with the most well-known dioxin, 2,3,7,8-TCDD, believed to be the single most carcinogenic chemical known to science (1);

2. Whereas, dioxin is a toxic waste byproduct that occurs when chlorinated waste is burned and when other organic chemicals that contain chlorine are manufactured and which in itself has no commercial or industrial use (2);

3. Whereas, dioxin is dangerous to human health, is ubiquitous in the worldwide environment (2) and is a known human carcinogen (3);

4. Whereas, the U.S. EPA estimates that the lifetime risk of getting cancer from dioxin exposure is above generally accepted safe levels (4);

5. Whereas dioxin is also an endocrine disrupting chemical involving insulin, thyroid, and steroid hormones, threatening the development of all human newborns (6);

6. Whereas, dioxin has been linked to endometriosis (7), immune system impairment, diabetes, neurotoxicity, birth defects (including fetal death), decreased fertility, testicular atrophy and reproductive dysfunction in both women and men (6),(8);

7. Whereas, dioxin exposure is significant and universal; over 90% of human exposure to dioxin occurs through diet (9),(10) and every person in the world now carries a "body burden" of dioxin (5),(8);

8. Whereas, Americans ingest a daily amount of dioxin that is already 300-600 times higher than the EPA's so-called "safe" dose (5),(8) and the U.S. EPA estimates that eating just a quarter pound of San Francisco Bay fish daily causes cancer risks to increase to a level of nearly one in 1,000 (11);

9. Whereas, Berkeley residents who consume fish from the Bay are at additional risk (12); dioxin contamination in fish reaches health advisory levels throughout the San Francisco Bay (13); and, San Francisco Bay fish consumers are predominantly low income and people of color (12);

10. Whereas, dioxin is found in the breast milk of women worldwide with the highest concentrations found in women from industrialized countries (14), and nursing infants take in 50-100 times more dioxin than adults due to drinking contaminated breast milk (15);

11. Whereas the International Agency for Research on Cancer (IARC) of the World Health Organization of the United Nations has determined that the most toxic congener of dioxin (2,3,7,8-tetrachlorodibenzo-p-dioxin, or TCDD) is a proven human carcinogen (3);

12. Whereas the International Joint Commission, comprised of the Governments of Canada and the United States, has publicly stated that zero exposure to dioxin is the only safe level (19);

13. Whereas the American Public Health Association (APHA) has passed resolution 9607, calling for prevention of dioxin generation by reducing or eliminating PVC plastic use by healthcare facilities (17);

14. Whereas the California Medical Association has passed a resolution supporting the reduction of dioxin-loading into the environment from medical products and practices (16);

15. Whereas the Chicago Medical Society has passed a resolution encouraging the study and evaluation of alternative products and practices that will lead to the reduction and elimination of dioxin release into the environment from medical products composed of chlorinated hydrocarbons (18);

16. Whereas the city of Urbana, Illinois has passed an ordinance prohibiting the incineration of medical waste within the city limits (37);

17. Whereas the United Methodist Church adopted a resolution in 1996 calling for a phaseout of the production of dioxin, beginning with immediate action on the three largest sources of dioxin: incineration of chlorine containing wastes, bleaching of pulp and paer with chlorine, and the entire life cycle of PVC plastic. The resolution also calls for worker protection programs and prevention-based approach to cancer research and funding related to chlorine-based toxins in the environment (38);

18. Whereas, dioxin has been detected in at least 27 measurements of treated waste water discharged from pollution sources in the Bay Area (20) and the San Francisco Bay Regional Water Quality Control Board has resolved that dioxin is a high priority for immediate action to restore water quality and protect public health (21);

19. Whereas, sources of dioxin pollution include medical and hazardous waste incineration, the production of polyvinyl chloride (PVC) plastics, biomass combustion, diesel exhaust, pesticide manufacturing, paper production, oil refineries (22); municipal waste incineration, sewage sludge incineration, residential wood burning, forest fires, secondary copper smelting, industrial wood burning, cement kilns (5); and urban street runoff (23), (41);

20. Whereas the incineration of chlorinated plastics, such as polyvinyl chloride (PVC), creates dioxin (30) and PVC plastic is the predominant source of organically bound chlorine in the medical waste stream (39);

21. Whereas the healthcare industry is the second largest producer of dioxins in the United States via medical waste incinerators (EPA Dioxin Sources, 1996);

22. Whereas California hospitals generate 168,000 tons per year of medical waste, containing twice as much plastic as the household waste stream, and other toxic substances, such as mercury and other heavy metals (36);

23. Whereas the only operating commercial medical waste incinerator in the state of California is located in the City of Oakland in a diverse neighborhood that is primarily a low income community of color (25);

24. Whereas, significant amounts of wastes from public health care institutions in Berkeley are incinerated in Oakland (26), and due to its proximity to Berkeley, the Oakland incinerator threatens or harms public health, welfare, and aquatic life in Berkeley, Oakland and throughout San Francisco Bay (23),(27);

25. Whereas, communities of color have been prime targets for siting unpopular incinerators across the U.S., often via exclusionary zoning regulations and chronic unemployment, poverty, and a lack of sound infrastructure place poorer communities at risk from polluting industries which exploit their economic vulnerability (40);

26. Whereas, pollution prevention is recognized as the most effective waste management strategy because it reduces the problem at the source through the use of non-toxic or less-toxic alternatives (28);

27. Whereas, a strategy which eliminates the generation of dioxin is the only viable course in protecting public health since once dioxin is produced, it is very difficult to destroy or degrade (19),(27);

28. Whereas cost effective alternatives to incineration exist for almost all the medical waste that requires special handling (30), while careful waste segregation has been proven to dramatically reduce the volume and toxicity of medical waste (29), and ultimately alternative, less toxic products exist for almost all products whose incineration creates dioxin (2);

29. Whereas, adverse health effects from dioxin exposure can be reduced through purchasing decisions that reduce or eliminate products that produce dioxin (such as PVC-free plastic or chlorine-free paper); and alternative, less toxic options exist for many products that create dioxin (2),

30. Whereas, dioxin is a clear threat to public health and the environment, eliminating exposure to anthropogenic sources is the only strategy that truly protects public health (31), local dioxin contamination has a disproportionate impact on low-income and minority communities (32),(33); and dioxin exposure affects all residents of Berkeley and the Bay Area (34);

Now, therefore be it recognized that:

i) Dioxin is a public health threat that must be addressed by a responsible society;

ii) Humans already carry unacceptable levels of dioxin in their tissue;

iii) Eliminating exposure to anthropogenic sources is the only strategy that truly protects public health;

iv) Disproportionate impacts on primarily low-income communities of color occur when incinerators are sited in such communities;

v) Disproportionate impacts on primarily low-income communities of color occur when incinerator bypass operations allow releases of untreated toxic chemicals;

vi) The toxic products of incomplete combustion (PIC's such as dioxins and heavy metals) are released in fugitive gases that expose workers and local communities;

NOW THEREFORE BE IT RESOLVED by the Council of the City of Berkeley that:

The City of Berkeley intends to take actions to eliminate anthropogenic sources of dioxin pollution by referring the goals listed below to the City of Berkeley members of the regional taskforce on dioxin to be established by the Association of Bay Area Governments:

- Committing to work with other local governments and participate in a regional taskforce which would identify and quantify the sources of regional dioxin pollution. The taskforce should identify all sources of dioxin pollution including emissions from local government departments. This taskforce would also develop dioxin pollution prevention strategies and assess any associated cost implications. The taskforce should take all steps necessary to implement the intent of this resolution, that is, to eliminate all anthropogenic sources of dioxin.

- Requiring the larger producers of dioxin emissions to participate in public hearings to inform the City and the public on the measures taken to reduce dioxin emissions;

- Stopping the disproportionate impacts of toxic exposure on low-income communities or communities of color;

- Requiring the larger producers of dioxin emissions in the San Francisco Bay Area to fully report emissions data to the taskforce and to the public, including emissions data related to incinerator ash;

- Eliminating any incineration of PVC plastic in the San Francisco Bay Area;

- That the taskforce research and report back to the City Council and the Community Environmental Advisory Commission the costs and steps necessary for health care institutions to reduce PVC use, and to eliminate all non essential incineration of medical wastes, without compromising worker safety and patient care. The goal of the taskforce should be to eventually make all health care institutions PVC-free

- That the City educate people who live and work in Berkeley about the health and environmental effects of dioxin.

BE IT FURTHER RESOLVED by the Council of the City of Berkeley that:

The City of Berkeley intends to take actions to eliminate anthropogenic sources of dioxin pollution by taking the following actions:

A. Adopting this resolution which designates dioxin pollution as a high priority for immediate action to restore water quality and protect public health.

B. Encouraging production and consumption of alternative, non-chlorine and non-toxic products;

C. That dioxin pollution prevention practices to be a part of all waste management and recycling programs by City departments, including City clinics and other operations.

D. That the City adopt a purchasing practice that increases the dependence on less-toxic, non-chlorinated, sustainable alternative products and processes, such as chlorine-free paper and PVC-free plastics.

E. That the City Manager send a letter to all Berkeley-based health care institutions (including those operated by the City of Berkeley) to encourage them to phase out the use of PVC products with a goal of becoming PVC-free. The letter should also ask health care institutions to ensure that the incineration of their medical waste is eliminated to the greatest degree possible, without compromising worker safety and patient care. In addition, hospitals should also strive to be mercury free by 2005 pursuant to the U.S. EPA and American Hospital Association Memorandum of Understanding.

F. That the Council request the City Manager to ensure that the Development Agreement that is being formulated between the City and Alta Bates Hospital specify reduction of PVC use, eventually to become PVC-free and mercury-free by 2005. Alta Bates hospital should be asked to eliminate the non-essential incineration of wastes without compromising worker safety and patient care.

G. That the Council request the City Manager to send a letter to the City of Oakland supporting the elimination of anthropogenic sources of dioxin emissions. The letter should notify the City of Oakland that the City of Berkeley has designated dioxin pollution as a high priority for immediate action to restore water and air quality and protect public health.

H. That the City Manager send a letter to the Bay Area Air Quality Management District (BAAQMD) urging the BAAQMD to take steps to eliminate all anthropogenic dioxin airborne emissions.

I. That the City Manager send letters encouraging the State Water Resources Control Board and the Regional Water Quality Control Board to exercise their full powers and jurisdiction, as intended by the Porter-Cologne Water Quality Act and the federal Clean Water Act, to protect the San Francisco Bay water from degradation. Further, the water boards should be encouraged to implement a plan to phase out all anthropogenic dioxin discharges into any water in the San Francisco Bay area.

J. That the Council request the City Manager to send a letter to the U.S. Environmental Protection Agency supporting its proposal to drastically reduce the thresholds for reporting dioxin-like chemicals under the Emergency Planning and Community Right-to-Know Act of 1986 and Pollution Prevention Act of 1990. In addition, the letter should support establishing dioxin pollution of the San Francisco Bay a high priority under Clean Water Act section 303(d). The letters should also recognize the efforts of the National Environmental Justice Advisory Committee's advice to the US EPA on dioxins in the San Francisco Bay.

The foregoing Resolution was adopted by the Berkeley City Council on September 14, 1999 by the following vote:

Ayes: Councilmembers Armstrong, Maio, Olds, Shirek, Spring, Woolley, Worthington and Mayor Dean.

Noes: None.

Absent: Councilmember Breland.

Shirley Dean, Mayor

Attest: _____
Sherry M. Kelly, City Clerk

ATTACHMENT A

Dioxin Resolution Citations

1. Healing the Harm: Eliminating the Pollution from Health Care Practices, Health Care Without Harm Campaign Report, 1997; and Huff, 1994.
2. Courture, L. et al. A Critical Review of the Developmental Toxicity and Teratogenicity of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin: Recent Advances Toward Understanding the Mechanism. Teratology 41:619-627, 1990.
3. International Agency for Research on Cancer (IARC) of the World Health Organizations, United Nations, 1997. National Toxicology Program Board of Scientific Counselors of the National Institute of Environmental Health Sciences, 1997.
4. Mariani, Jay. Dioxin Fact Sheet, Environmental Law and Justice Clinic, Golden Gate University, San Francisco, 1998.
5. U.S. EPA, Estimating Exposures to Dioxin-Like Compounds. Vols. I-III (Review Draft). Washington, D.C., U.S. EPA Office of Research and Development; 1994, Report No.: EPA 600/6-88-005. (EPA's draft Dioxin Reassessment).
6. Birnbaum, Linda et al. Developmental Effects of Dioxins and Related Endocrine Disrupting Chemicals. Experimental Toxicology Division, U.S. EPA. Toxicology Letters, p. 743-750, 1995.
7. Rier, S.E. et al. Endometriosis in Rhesus Monkeys (Macaca Mulatta) Following Chronic Exposure to 2,3,7,8-Tetrachlorodibenzo-p-dioxin. Fundamental and Applied Toxicology, Vol. 21, pp. 433-441, 1983.
8. DeVito, Michael et al. Comparisons of Estimated Human Body Burdens of Dioxin-like Chemicals and TCDD Body Burdens in Experimentally Exposed Animals, pp. 820-831, 1995. Economic Analysis of the Proposed California Water Quality Toxics Rule, U.S. EPA, 1997.
9. Schecter, A., 1991. Levels of Dioxins, Dibenzofurans, PCB and DDE Congeners in Pool Food Samples Collected in 1995 at Supermarkets Across the United States. Chemosphere, Vol. 34, Nos 5-7, pp. 1437-1447, 1994; and Congener-Specific Levels of Dioxin and Dibenzofurans in U.S. Food and Estimated Daily Dioxin Toxic Equivalent Intake, Environmental Health Perspectives, 1994.
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13. OEHHA. "Health Hazard: Catching Fish and Eating Sport Fish in California", Interim Sport Fish Advisory for San Francisco Bay. California Office of Environmental Health Hazard Assessment, California, EPA. December, 1994.
14. Schechter, A. Dioxins in Humans and the Environment. Biological Basis for Risk Assessment of Dioxins and Related Compounds, Banbry Report 35: 169-214, 1991.
15. Linstrom, Gunilla, et al. Workshop on Perinatal Exposure to Dioxin-like Compounds I. Summary, Environmental Health Perspectives, Volume 103, Supplement 2, March 1995.
16. California Medical Association, Resolution, 1998.
17. American Public Health Association, Resolution 9607, 1996.
18. Chicago Medical Society, Resolution, 1998.
19. Sixth Biennial Report on Great Lakes Water Quality, Washington, D.C. and Ottawa, Ontario: International Joint Commission, 1992.

20. Self-monitoring Reports Submitted to the RWQCB by the Tosco, Unocal, and Pacific Refining Oil Refineries and the Berkeley Southeast, San Jose/Santa Clara, Sunnyvale, Union Sanitary District, and West County Agency Sewage Treatment Plants.
21. Regional Water Quality Control Board, Policy Statement on Dioxin, February 18, 1998.
22. Thomas, V. et al. An Estimation of Dioxin Emissions in the United States. Department of Chemistry and Center for Energy and Environmental Studies, Princeton University. Toxicological and Environmental Chemistry, Vol. 50, pp. 1-37, 1995.
23. Maher, D. et al., 1997. PCDD/PCDFS Levels in the Environment: In Storm Water Outfalls Adjacent to Urban Areas and Petroleum Refineries in San Francisco Bay, CA, USA. Organohalogen Compounds, Vol. 32.
24. California Technical Support Document for Medical Waste Incinerators, California Air Resources Board, 1990. Dioxin Sources, U.S. EPA, 1996.
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28. Pollution Prevention Act of 1990, U.S. Congress.
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36. Environmental Working Group, First, Do No Harm, 1997.
37. City of Urbana, Illinois, November 17, 1997.
38. United Methodist Church, Book of Resolutions of the United Methodist Church, 1996.
39. Thornton J., McCally M, Orris P., Weinberg J., Dioxin Prevention and Medical Waste Incinerators, U.S. Public Health Service, Public Health Reports, Vol. III, Number 4, July/August 1996.
40. Bullard, Confronting Environmental Racism.
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