



COMMONWEALTH of VIRGINIA
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MEMORANDUM

TO: The Honorable Lee R. Ware
Chair, House Committee on Agriculture, Chesapeake and Natural Resources

The Honorable Robert D. Orrock
Chair, House Committee on Health, Welfare and Institutions

The Honorable J. Chapman Petersen
Chair, Senate Committee on Agriculture, Conservation and Natural Resources

The Honorable Louise L. Lucas
Chair, Senate Committee on Education and Health

FROM: Karen Shelton, MD
State Health Commissioner, Virginia Department of Health

SUBJECT: 2022 Annual Review of Policies Guiding Fish Consumption Advisories

This report is submitted in compliance with the Virginia Acts of the Assembly – § 32.1-248.01, which states:

The Virginia Department of Health shall develop a written policy, which shall be revised annually, that identifies the criteria and levels of concern for certain toxic substances that the Department will use in determining whether to issue a fish consumption advisory. The policy shall initially include the criteria and levels of concern for polychlorinated biphenyl, mercury, dioxin, and kepone. The Department shall issue fish consumption advisories as provided for in the policy and shall do so on a timely basis. A copy of the written policy shall be provided to the Chairmen of the House Committee on Health, Welfare and Institutions,

the House Committee on Conservation and Natural Resources, the Senate Committee on Education and Health, and the Senate Committee on Agriculture, Conservation and Natural Resources no later than one month prior to adoption of the policy but no later than December 1, 2000. Any revision of the policy shall be submitted to the chairmen of these committees no later than one month prior to the adoption of the revision by the Department.

Should you have any questions or need additional information, please feel free to contact me at (804) 864-7002.

KS/AJ

Enclosure

Pc: The Honorable John Littel, Secretary of Health and Human Resources

2022 Annual Review of Policies Guiding Fish Consumption Advisories

Virginia Department of Health - Office of Environmental Health Services

Executive Summary

The Code of Virginia §32.1-248.01 directs the Virginia Department of Health (VDH) to develop a written policy, which shall be revised annually, that identifies the level of concern for certain toxic substances in fish. VDH uses these thresholds to issue fish consumption advisories. The annual review was conducted in July 2022 and included a review of current guidelines and applicable science related to polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), mercury, dioxin, and Kepone. VDH does not recommend changing any of the current fish consumption advisory guidelines at this time.

Introduction

Virginia has many bodies of water, with abundant fish available for consumption by recreational fishermen. However, natural, intentional, and unintentional releases of chemicals into many of the state's waterways have resulted in fish that are contaminated with elevated levels of toxic substances. Currently, mercury and PCBs continue to be the primary contaminants found in fish tissue and which result in the issuance of a fish consumption advisory. VDH determines the level of concern for each contaminant in fish tissue by reviewing the current toxicity data on each contaminant along with what the agency's experts know about consumption habits of recreational fisherman. The Department of Wildlife Resources (DWR) and the Department of Environmental Quality (DEQ) are additionally engaged before a fish consumption advisory is issued.

Background

In October 2000, pursuant to § 32.1-248.01 of the Code of Virginia, VDH published guidelines for the issuance of fish consumption advisories due to contamination of fish with PCBs, PBDEs, mercury, dioxin, and Kepone. These initial guidelines established the criteria and contaminant levels of concern that VDH would use for determining whether a fish consumption advisory should be issued for certain fish species in state waters. VDH reviews this information yearly to ensure it is accurate based on current guidelines and applicable science.

Findings

In July 2022, the VDH State Public Health Toxicologist reviewed the current guidelines and applicable science related to PCBs, PBDEs, mercury, dioxin, and Kepone. The most current guidelines are available on the Virginia Regulatory Town Hall through the following links: [dioxin](#), [Kepone](#), [mercury](#), [PBDEs](#), and [PCBs](#). Below is the current list of contaminants and their associated action levels, which prompt the issuance of a fish consumption advisory in Virginia:

- **PCBs** – When PCBs levels in fish range from 100 to below 500 micrograms per kilogram ($\mu\text{g}/\text{kg}$), VDH recommends limiting consumption of contaminated fish species to two, 8-oz meals per month. When levels equal or exceed 500 $\mu\text{g}/\text{kg}$ in fish, VDH recommends avoiding consumption of contaminated fish species.
- **PBDEs** – When PBDEs levels in fish range from 0.5 to below 1.0 milligrams per kilogram (mg/kg), VDH recommends limiting consumption of contaminated fish species to two, 8-oz meals per month. When levels equal or exceed 1.0 mg/kg in fish, VDH recommends avoiding consumption of contaminated fish species.
- **Mercury** – When mercury levels in fish range from 0.5 to below 1.0 mg/kg , VDH recommends limiting consumption of contaminated fish species to two, 8-oz meals per month. When levels range from 1.0 to below 2.0 mg/kg , VDH recommends limiting

consumption to one, 8-oz meal per month. When levels equal or exceed 2.0 mg/kg in fish, VDH recommends avoiding consumption of contaminated fish species.

- **Dioxin** – When dioxin levels in fish range from 2.0 to below 5.0 nanograms per kilogram (ng/kg), VDH recommends limiting consumption of contaminated fish species to two, 8-oz meals per month. When levels range from 5.0 to below 10 ng/kg, VDH recommends limiting consumption to one, 8-oz meal per month. When levels equal or exceed 10 ng/kg, VDH recommends avoiding consumption of contaminated fish species.
- **Kepon**e – VDH is currently using the U.S. Food and Drug Administration action level of 0.3 mg/kg. When Kepon levels in fish are 0.3 mg/kg or higher, VDH recommends avoiding consumption of contaminated fish species.

Conclusion

Based on the review of current guidelines and applicable science, VDH recommends that the current fish consumption advisory guidelines remain the same at this time.