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Capacitor Division

UNIVERSAL MANUFACTURING CORP.

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January 22, 1974

Subject: Comments on List of Toxic Pollutants and Proposed Toxic Pollutant Effluent Standards

Dr. C. Hugh Thompson
Chairman, Hazardous and Toxic Substances
Regulation Task Force
Office of Water Program Operations
U.S. Environmental Protection Agency
Washington, D.C. 20460

Dear Dr. Thompson:

It has come to our attention that you will consider comments relating to the materials on the List of Toxic Pollutants (Federal Register, Vol. 38, No. 173, September 7, 1973) under the Federal Water Pollution Control Act, and on the Proposed Toxic Pollutant Effluent Standards (Federal Register, Vol. 38, No. 247, December 27, 1973) under the same Act.

Universal Manufacturing Corporation is a substantial user of Polychlorinated biphenyls (PCB's), which are included on the List of Toxic Pollutants, and for which Proposed Standards have been published. Specifically, we use Aroclor 1016, purchased from Monsanto Industrial Chemicals Co., in the manufacture of capacitors used principally to improve the efficiency of operation of ballasts for fluorescent lamps and high intensity discharge lamps, and of residential air conditioning equipment.

In addition to the Federal Register publications on this subject, five documents with which you are already familiar are, we believe, particularly pertinent:

1) "PCB's and the Environment", Interdepartmental Task Force on PCB's, May, 1972.

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2) Letter, subject "Comments on Toxic Pollutant Effluent Standards (38 FR 21342, Sept. 7, 1973)" dated November 21, 1973, from Dr. E. L. Simons of General Electric Company to Dr. C. Hugh Thompson of EPA.

3) Letter, subject: "Effluent Limitations for Items on Toxic Substances List: Economic Impact of a Ban on PCB." dated November 21, 1973, from James S. Nelson of General Electric Company to Dr. Martha Sager of EPA.

4) "Presentation to the Effluent Standards and Water Quality Information Advisory Committee" by Mr. W. B. Papageorge of Monsanto Industrial Chemicals Company, November 29, 1973.

5) Letter re: Effluent Standards and Water Quality Information Advisory Committee Agenda and Notice of Public Hearings, dated July 13, 1973 from Mr. W. B. Papageorge of Monsanto to Dr. Martha Sager of EPA, enclosed with letter dated August 6, 1973 from Mr. W. B. Papageorge of Monsanto to Dr. C.H. Thompson of EPA.

We believe the proposed effluent standards for PCB's are unrealistically low, are unwarranted, and if placed in effect would have the practical effect of a ban on the manufacture and use of PCB's in electrical capacitors and transformers (the only remaining uses) in the United States. Certainly a ban for such applications was not recommended by the Interdepartmental Task Force; in fact, that recommendation was to the contrary. Mr. Nelson's letter to Dr. Sager summarizes the economic effects of a ban on the use of PCB's in the capacitor industry; we agree with and fully support the presentation in that letter and its enclosures. Dr. Simons' letter to you summarized reasons why the proposed standards lack justification, and are unwarranted and unnecessary to accomplish the environmental protection purposes of the Federal Water Pollution Control Act; we agree with and fully support the presentation in that letter. The July 13, 1973 letter and the November 29 presentation by Mr. Papageorge call attention to the biodegradability of the PCB isomers used in capacitors, and to the actions taken within the industry to minimize the entry of PCB's into the environment; we agree with and fully support the presentations in these documents.

PCB isomers which contain five or more chlorine atoms per biphenyl molecule have been present as only a fraction of one percent in all PCB material used in capacitors since the latter part of 1971. To our knowledge, only such isomers have been found in the tissue of any form of life. We believe a distinction should be made in establishing effluent standards, between substances which can reasonably be expected to have an adverse chronic effect and those which by their absence from tissue can be expected not to have such effect.

The quantity of capacitors which are used in fluorescent lamp ballasts probably exceeds 50 million a year. By the nature of the application in most commercial and industrial installations, they are used indoors in large numbers; quantities used in individual buildings range upward into the thousands. We believe the non-flammability of the PCB materials currently used in such capacitors is a major safety factor. Alternative materials known to us (such as a special grade of mineral oil), even if they were available in sufficient quantity, have much lower flash/fire points than PCB's, and would in our judgement present a very real fire safety hazard when used in such concentrations. To our knowledge, this potential hazard has never been seriously evaluated, since capacitors used in this application have been made with PCB's since the beginning of the fluorescent lighting industry in 1938.

Capacitors have been used over the years in increasing numbers, for economic reasons, on electrical distribution circuits, in lighting equipment, and in electrically powered equipment which includes inductive devices such as electric motors. In such applications they not only save electric energy directly by improving efficiency of operation, but they save much more energy indirectly by reducing the amount of material which would otherwise be required to perform the function. Such savings have now passed beyond the purely economic realm, and are increasingly important from the standpoint of their environmental effect. In this connection, we are attaching a copy of a letter dated January 3, 1974 to Mr. William Simon of the Federal Energy Office, from Mr. John R. Hutzler of Aerovox Industries, Inc. encouraging the use of capacitors to save energy. Unrealistic or unjustified effluent standards which would have the effect of forcing a change to non-PCB materials for capacitors, and thus reducing their supply by approximately 50% (see enclosure to Mr. Nelson's November 21, 1973 letter to Dr. Sager), would in our

judgement impose an unnecessary burden on the economy, would impose additional requirements on the already insufficient supply of energy, and would be counter-productive to the objective of improving the environment.

Our purpose in writing these comments has been to add our support to information you already have, and to emphasize our belief that the Proposed Toxic Pollutant Effluent Standards are unnecessarily and unwarrentedly restrictive. We appreciate the opportunity to submit comments, and hope you will find them useful.

Very truly yours,

UNIVERSAL MANUFACTURING CORP.

N. Ray Clark

N. Ray Clark, Vice President

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