UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

November 25, 1974

Mr. C.L. Stratton, Chief
Technical Services
P.O. Box 13454
University Station
Gainesville, Florida 32604

Dear Mr. Stratton:

This letter confirms our recent phone conversation and authorizes activity to be undertaken as task I under contract WA-74-R318 entitled "Sampling and Analysis of Selected Toxic Substances." Kindly initiate efforts to develop a sampling and analysis protocol to determine the concentration of PCBs in air, water and soil from samples obtained in the immediate vicinity but not on property owned by the following industries:

Monsanto Chemical Co. Krumudge Plant Sauget, Illinois	Manufacturing Co.
General Electric Co. Hudson Falls, N.Y. Port Edward, N.Y.	Transformers Capacitors
Yates Manufacturing Co. 1615 West 15th Street Chicago, Illinois	Waxes, Investment Casting Co.
Hitchner Mfg. Co. Milford, N.H.	Investment Casting Co.
True Temper Corp. 1623 Euclid Ave. Cleveland, Ohio	Investment Casting Co.
Valcast 2741 Elliott Troy, Mich.	Investment Casting Co.

DSW 330268

Polychlorinated biphenyls (PCBs) are synthetic organic chemicals used principally as industrial heat transfer fluids. Their stability under environmental conditions, propensity for bioconcentration and known toxic potential have given rise to substantial concern about uncontrolled release into the environment. Despite this long term regulatory concern, a major question remains to be answered, "Are voluntary controls established by the industry effectively eliminating the environmental release of PCBs known sites of manufacture or use?"

The following guidelines will be considered in establishing sampling sites.

Air sampling sites will be established within each quadrant around the industry. Samples will be taken at an elevation of 3-6 feet above the ground. Exact sitings will be determined by theoretical pollutant behavior upon liberation into the environment. Monitoring euqipment will be placed at the hypothetical point of maximum concentration in neighborhoods adjacent to the plant. Two consecutive 24 hour composite samples will be collected from a minimum of 1 site within each quadrant around the industry. Air samples collected from each site will be analyzed separately.

Surface water sampling sites will be established up and down stream of effluent discharged by the selected industries. Water sampling will be concomitant with air sampling and shall employ techniques to insure the integration of horizontal and vertical distribution patterns in the aquatic environment. Two consecutive 24 hour composite samples will be collected at each of the paired sampling sites. If industrial waste is discharged into a sewer system, composite samples will be obtained from that sewer system at a convenient point closest to the property line.

Samples of the top 1" soil will be collected along two transects which bisect the selected industry forming a right angle at their intersect. Each transect shall extend for 1 mile on either side of the industry and samples shall be taken at 1/4 mile intervals.

Sample preservation and detection shall be specific for the polychlorinated biphenyls and sensitive to environmental levels of one (1) ppb.

If precipitation can be collected during the sampling period, analysis shall be performed on this matrix.

The protocol for sampling and analysis of PCBs shall be completed within thirty (30) days of the receipt of this letter and submitted for approval by the Project Officer. The report shall contain a detailed statement of the methodology employed and the rationale for selection of specific sampling locations.

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Upon revision, if necessary, and approval by the Project Officer, the contractor shall implement the monitoring program.

Sincerely yours,

William A. Coniglio, Acting Chief
Monitoring Branch
Office of Toxic Substances

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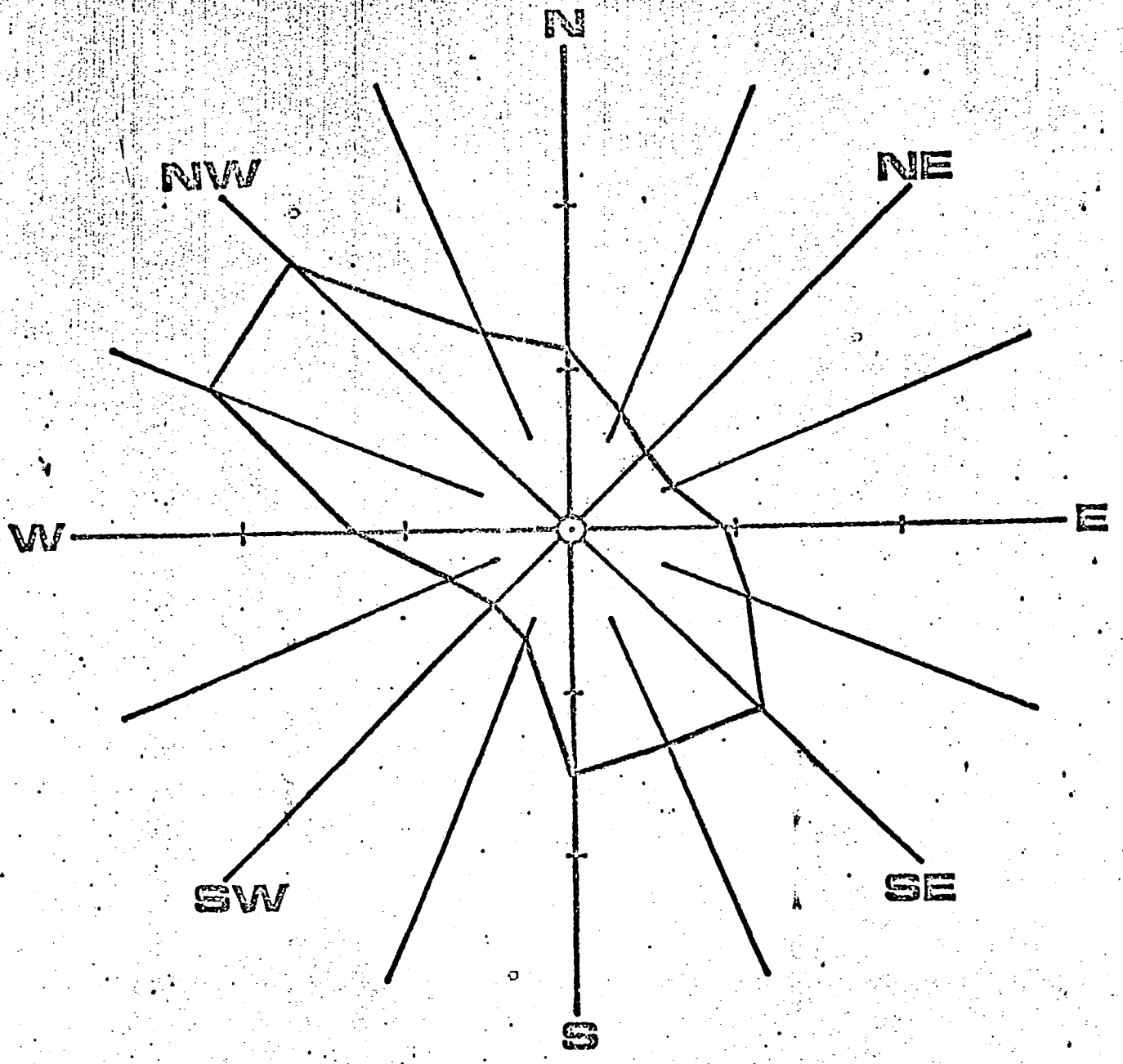

Figure . Ten Year Averaged Wind Rose for St. Louis, Missouri, January through March, 1951-1960.

Scale: 1" = 5% Calm Winds = 2.0%

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