Monsanto

Bill Enfrom

COMPANY CONFIDENTIAL

FROM (NAME & LOCATION) H. L. Campbell

DATE April 9, 1974

SUBJECT Laboratory Work, PCB
Environmental Control Program

REFERENCE Proposed PCB Plan, 2/26/74

TO : P. E. Heisler

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In the proposed PCB control plan, the laboratory AR-D Group has been assigned the responsibility of determining the stability of sulfonylated PCB's, and the effect of chemical treatment on PCB reduction.

Prior to starting work on the latter, we will need some basic information and a suitable sample of our present treatment plant effluent. We need to know the chemical(s) and concentration (lbs/gal) that will be used. Since previous experimental data indicates that adsorption of PCB's from water onto particulate is dependant on concentration and type of Aroclor, we will want to adjust our test samples accordingly. This will require at least a two (2) gallon sample of effluent at a comparatively low level of PCB.

Attached are brief outlines of the experimental work we plan to undertake, with an estimate of the time and cost for each project. If it is felt that either approach will not provide meaningful information, any suggestion or alternate is welcome.

H. L. Campbell
(H. J. Horner)

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attach.

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Outline of Laboratory Work

Responsibility	Experimental
C-4, Determination of stability of PCB's that are presently sulfonylated in C/S acid scrubbers	1. Prepare and isolate derivatives of Aroclors 1242 and 1254. 2. Equilibrate quantities of each product with organic free water for a specified period. Analyze aliquots for PCB's and/or derivative at intervals for 1-week (or until it is determined that concentration is constant) Tests will be made in both acidic and basic media. Man days: 25 Cost: $3500
D-2, Laboratory experiments to predict PCB reduction from soon-to-be installed chemical treatment plant	Equilibrate present effluent with known amounts of chemical additive(s) for 24 hours. Analyze supernatant liquid for PCB's. The equilibrium experiments will be performed at several levels of total PCB's with varied amounts of additive(s). Adsorption of PCB's other than by the additive(s) will be accounted for by running a blank thru the tests. Man days: 15 Cost: $2100

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