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Latimer - Moments

MEMORANDUM OF DISCUSSION
MAY 9, 1969

Engineering - Science, Inc.*
David W. Eckhoff
Neal E. Armstrong

SHELL CHEMICAL COMPANY
R. E. Hanson
W. J. Raab (part time)

Engineering-Science Inc. had been retained by Kaiser to handle a segment of the San Francisco Delta-Bay pollution study. Their findings were recently aired at a series of hearings in California. Mr. Armstrong, who works for Engineering-Science, was invited to drop by for informal discussions with Shell on the Delta-Bay project and other environmental matters of mutual interest. The present meeting was a result of this. In addition, David Eckhoff came along. Armstrong has a Ph.D. in environmental sciences, and Eckhoff is a sanitary engineer.

Of particular interest, it was learned that a key point in the testimony at the hearing had been in error; contrary to the San Francisco testimony, DDT levels in bay water had actually declined in 1968 as compared to 1965. Also, although the data were not statistically significant, sediment levels of DDT appeared lower in 1968. These corrected observations better fit the pattern expected from the declining usage of DDT in California during recent years.

Messrs. Eckhoff and Armstrong are now working on a similar study of Jamaica Bay, New York. This study is financed by Federal, State and municipal funds and was instituted by New York City to help formulate long-range plans for sewage treatment facilities. The first year has been an attempt to obtain an ecological base line for Jamaica Bay. Preliminary sampling of water and sediment has yielded some rather surprising information, (1) Little or no DDT or other chlorinated insecticides are present in Jamaica Bay despite past spraying campaigns on Long Island. (In general, however, Jamaica Bay does not drain agricultural areas.) (2) Polychlorinated biphenyls (PCB) are conspicuously present. At one sampling point PCB reached a level of about 3700 ppb, and it was detected at lower but substantial levels at the other 10-15 sampling points covered. According to Mr. Eckhoff, the analyses were performed by Stoner Laboratories, who are considered experienced and competent in environmental residue analysis. It is difficult to explain the PCB levels as a result of industrial pollution, because the scale of industrial activity around Jamaica Bay is low. However, Kennedy Airport is close-by and there is the possibility of an as yet undetermined connection between its activities and PCB level in the bay.

They asked if we would analyze several samples in order to confirm the lack of chlorinated pesticides in the Jamaica Bay samples. We said we would, but to contact us prior to the need. We were also invited to observe the program on Long Island. It might be good for Gusey or Hanson to pay them a visit.

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Of interest, Messrs. Eckhoff and Armstrong mentioned that ortho-dichlorobenzene is sprayed on at least one garbage dump in the area. Presumably, it serves as an odor-masking agent. It's long-range effect on Jamaica Bay water and possible interference with GLC analyses is not known at this time.

According to Neal Armstrong, chlorination of sewage can increase substantially the toxicity of sewage effluent to certain organisms. This suggests the possibility that at least a small fraction of organic residues in sewage might be converted to chlorinated derivatives capable of interfering with GLC analysis

W. J. Raab

cc: New York - ACD - Manager Regulatory Affairs ← This Copy For
- Senior Wildlife Specialist
- Pesticide Regulation Dept. - Manager