



University of Hawaii at Manoa

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July 23, 1986
RP:0062

Mr. Steve Chang
Environmental Protection and Health Services
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Chang

Marine Culture Enterprises Effluent Limitations and Monitoring Program

I am responding to your request of July 14 and 15, 1986, for advice on the monitoring program and proposed new modifications to the effluent discharged by Marine Culture Enterprises (MCE). Frank Sansone, and Keith Chave, Oceanography; and Steve Smith, Hawaii Institute of Marine Biology have assisted in the review of the information provided and have contributed to the following comments.

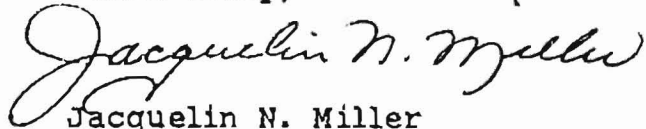
In our review of the earlier proposed NPDES permit modifications (June 17, 1986), we called attention to the lack of information on the fate of the nutrients entering the ecosystem and the need to assure that the monitoring program provide this information. According to the Annual Report on Environmental Activities for MCE, (May, 1986) the present monitoring program is providing an indication of the area of influence of the effluent, i.e. the Zone of Mixing, but there seems to be little information as to the effect of the discharge on the receiving ecosystem. The existing monitoring program may eventually, after a longer period of time, reveal the sites and sources of uptake, breakdown, or loss of nutrients to the system, however, the existing information is presently inconclusive. Specifically, for example, more nitrogen is going into the receiving environment than is accounted for by the information available to date. Given the quality and quantity of the discharge and the experience and competence of AECOS and MCE we suggest that they should include in their monitoring program provisions to quantitatively examine the fate of the effluent constituents in the biological ecosystem.

The decision to permit expansion of the quantity and relaxation of the quality of the discharge can not be justified on the basis of the information now available as to the effects of the effluent on the receiving environment. If the requested modifications to the permit are to be made on economic grounds then DOH may wish to request legal counsel to determine if that decision could establish a bonafide

legal precedent for other dischargers to claim economic hardship and thereby disregard permit limitations

We suggest that as a condition of the NPDES permit, DOH consider requiring MCE to develop an abatement plan and a time table for its implementation. This would have the advantage of establishing some positive action toward eventual abatement of the discharge and put the DOH on record as moving toward eventual enforcement of the State water quality regulations. It would also provide some added time for the monitoring program and the evaluation of the effects of the discharge on the receiving biota.

Yours truly,

A handwritten signature in cursive script that reads "Jacquelin N. Miller". The signature is written in dark ink and is positioned above the printed name and title.

Jacquelin N. Miller
Acting Associate Director

cc: Patrick Takahashi
Steve Smith
Frank Sansone
Keith Chave