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August 8, 1986
RG:0067

Mr. Leslie S. Matsubara, Director
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Matsubara:

Amendments to
Chapter 54 of Title 11, Administrative Rules,
"Water Quality Standards"

In response to your request, we have reviewed the proposed amendments to the Water Quality Standards with the assistance of Keith Chave, Oceanography; Hans Krock, Ocean Engineering; and Reginald Young, Engineering. Our review calls attention to both substantive or major issues as well as some of the more minor structural or typographical errors.

Substantive Issues

Water Quality Criteria: The specific "criteria" for water quality for the various water classes to be protected refer to values "Not to Exceed the given value more than 10% of the time" or "Not to exceed the [given value] more than 2% of the time". In either case, the criteria is not meaningful or enforceable. There is no indication of what "time" period is intended. For example, is it 10% of the samples taken over 1 year, 1 day, or over ten minutes? Furthermore there is no guidance as to how many samples, over the unspecified time period, will be required. The time period and number of samples and sample space should be defined.

Temporary Zone of Mixing: The major change in the regulations appears to be the addition of a provision for a "Temporary" zone of mixing. Since this new classification is attached to all previous paragraphs referring to a Zone of Mixing, there does not appear to be any difference between the two designations. The purpose of the temporary zone of mixing therefore is not clear. The term "temporary" seems inappropriate since the permit may be issued for five years (11-54-09.1) and renewed (11-54-09 (c) (6),(7). Under the existing ZOM regulations, the period of the zone of mixing may be

any period up to five years: 11-54-09 (c) (6) (B) "The director of health may issue a zone of mixing [permit] for a period not exceeding five years." If the purpose of the "temporary" zone of mixing is to handle discharges from short term, ie. 1 year, construction projects, then provision for a variable term, other than 5 years, seems possible under the existing regulations. For construction discharges, water quality parameters to be measured should include turbidity and dissolved oxygen.

11-54-06 Ambient Condition: While we recognize the intent of the change in the definition of "Ambient condition", we should caution that much of the waters of the state are influenced by man and as such the definition proposed may not provide much improvement for regulatory purposes.

Structural and Typographical Suggestions

11-54-01.1 General policy of water quality: This is a new section and therefore should be underlined in its entirety. Grammatically it should be changed to read, "Waters whose qualities are.....", or Water whose quality is.....". What is the significance of,.. "affirmatively" demonstrated?

11-54-03 Classification of water uses, (c) (1) Class AA, lines 6-10: This sentence, "No zones of mixing shall be permitted in this class within a defined reef area, in waters of a depth less than ten fathoms or in waters up to a distance of 1,000 feet off shore if there is no defined reef area and if the depth is greater than ten fathoms." is confusing. It seems that the limiting criteria for a ZOM in Class AA waters is the prohibition of a ZOM within 1000 feet of shore, regardless of water depth or defined reef area. If this is the case, then the sentence cited above should be revised accordingly.

11-54-07 Uses and specific criteria applicable to marine bottom types, (e) (2) (A) (v): The date of the Maui lava flow should presumably read 1870 (not 1970).

11-54-09 and 11-54-10: The many references to the Director of Health as a male should be rephrased to account for a future director of either sex.

11-54-[10] 11 Water quality analyses: The designation of the 15th edition of the Standard Methods for the Examination of Water and Waste Water is inappropriate. The 16th edition is now available. We suggest that the designation be revised to indicate "the current edition".

Mr. Leslie S. Matsubara

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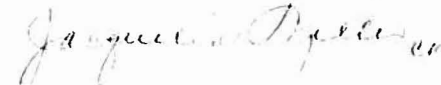
General Comments

New data collected since the standards were promulgated should be included in the revisions. For example, the values in the present standards for Nonfilterable residue should be revised pursuant to recent values achieved through improved laboratory procedures.

Thought should be given to expanding the standards to waters not presently covered by the existing regulations, ie. waters greater than 30 meter depth, in anticipation of discharges associated with future developments such as ocean thermal energy conversion plants or marine mineral mining.

We appreciate the opportunity to comment on these proposed changes to the water quality regulations.

Yours truly,



Jacquelin N. Miller
Acting Associate Director

cc: Patrick Takahashi
Brian Choy
Mary Rose Teves
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