



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

August 19, 2009

VIA ELECTRONIC FILING AND EPA OVERNIGHT POUCH

Ms. Eurika Durr, Clerk of the Board
Environmental Appeals Board
U.S. Environmental Protection Agency
Colorado Building
1341 G Street, N.W., Suite 600
Washington, D.C. 20005

Re: City and County of Honolulu's Sand Island Wastewater Treatment Plant and
Honouliuli Wastewater Treatment Plant
Permit Nos. HI0020117 and HI0020877; NPDES Appeal No. 09-01
(also NPDES Appeal No. 09-07)
Missing Pages in Administrative Record

Dear Ms. Durr:

While working on our latest submissions in the above-referenced case, we found that we had inadvertently omitted two pages from the administrative record for the Sand Island decision. These are pages S-01-332 and S-01-333 from Document No. S.1.7, the Sand Island Tentative Decision, which is found on the Board's website as Document 33.

The two missing pages are attached to this letter. Neither relates to any of the issues raised in either NPDES Appeal No. 09-01 (CCH petition) or 09-07 (Moreland petition).

My contact information is as follows: direct telephone: (415) 972-3884; office FAX: (415) 947-3570; email: leith.suzette@epa.gov. Do not hesitate to contact me if there are questions.

Sincerely yours,

A handwritten signature in blue ink that reads "Suzette E. Leith".

Suzette E. Leith
Assistant Regional Counsel (ORC-2)

Enclosures: Certificate of Service, AR pages S-01-332 and S-01-333

CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the following documents:

AR pages S-01-332 and S-01-333

were sent this day by electronic mail to:

Mr. David Salmons
Bingham McCutchen LLP
2020 K Street NW
Washington, DC 20006
david.salmons@bingham.com

and by regular mail to:

Mr. Victor D. Moreland
1378 Mahiole Street
Honolulu, HI 96819-1748


Suzette E. Leith

Date: August 19, 2009

In accordance with Equation B-54 of the ATSD, LEC is calculated as:

$$\text{LEC} = k_2/\text{Secchi depth (in meters)}$$

where the proportionality constant, k_2 , is 1.7.

The application refers to annual report summaries from the AARs. EPA reviewed summaries of LEC data contained in AARs from 1999 through 2005. In these summaries, annual geometric means were calculated from LEC values reported from quarterly monitoring events. The applicant reported one calculated geometric mean, which appears to represent the four ZOM stations (E2, E3, D2, and D3). These geometric mean values ranged from 0.023 to 0.065 k units. All values were below the Hawaii water quality standard for LEC.

EPA reviewed LEC monitoring results for the years where the applicant submitted LEC and Secchi disk data. The applicant submitted LEC and Secchi disk data from nearshore waters for the years 2002, 2003, 2004, and 2006 and data from offshore waters in the years 2003, 2004, and 2006. EPA reviewed data from the stations identified in the permit, as well as the following additional stations created and monitored by the applicant: C1A, C2A, C3A, C5A, C6, D3A, D6, and E6.

For the years reviewed, LEC values ranged from 0.08 to 0.21 k in nearshore waters and from 0.047 to 0.109 k in offshore waters. In nearshore waters, annual geometric mean values exceeded the State water quality standard for turbidity at two stations, C5 and C3A. In 2004, the annual geometric mean at station C5 was 0.21 k. At station C5, the LEC reading was 0.49 on January 15th. The other two readings taken that year at station C5 were below the LEC criterion. In 2006, the annual geometric mean was 0.21 k at station C3A. At station C3A, two of the four individual readings were above the LEC criterion in 2006. The reading from March 30th was 0.21 k and the reading from May 17th was 0.9 k.

Based on these data, LEC values at most stations in most years were below the Hawaii water quality standard.

c. Suspended Solids

Although there is no water quality standard for suspended solids, EPA used the ATSD to assess the likelihood that the discharge will cause a substantial effect in the water column. The concentration of suspended solids at the completion of initial dilution is calculated using Equation B-31 from the ATSD:

$$SS_r = SS_a + (SS_e - SS_a)/S_a$$

where:

- SS_f = Suspended solids concentration at completion of initial dilution, mg/l
- SS_a = Affected ambient suspended solids concentration immediately upcurrent of the diffuser averaged from the diffuser port to the trapping level, mg/l
- SS_e = Effluent suspended solids concentration, mg/l
- S_a = Initial dilution

The applicant obtained a worst-case increase in suspended solids of 0.71 mg/l by using an ambient measurement of 2.0 mg/l, the peak daily effluent suspended solids concentration of 108 mg/l for 2002, and a minimum initial dilution of 150. The applicant calculated SS_f to be 2.71 mg/l.

On page III-17 of the application, the applicant presents the calculated amount of suspended solids under the most stratified condition. The applicant indicated that a predicted initial dilution of 106.3:1 was determined for the most stratified condition. Using 106.3 as S_a, rather than using 150 as S_a, the applicant calculated that the suspended solids at completion of initial dilution would be 1.0 mg/l higher than the ambient concentration of 2.0 mg/l. Consequently, under the most stratified conditions, the applicant calculated SS_f to be 3.0 mg/l.

EPA recalculated the worst-case increase using the revised initial dilution of 103 with an SS_a of 2.0 mg/l and an SS_e of 69 mg/l, which is the average monthly permit limit. EPA obtained a worst-case increase in suspended solids of 0.65 mg/l and, consequently, calculated SS_f to be 2.65 mg/l. This is a 32.5% increase due to the discharge.

The ATSD indicates that an increase in suspended solids at the completion of initial dilution of less than 10 percent is not likely to present a substantial effect in the water column. Both the applicant and EPA calculated worst-case increases in suspended solids greater than 10 percent because a very low ambient concentration was applied in Equation B-31.

The ATSD notes that seabed deposition could still be substantial, depending on the mass emission rate of suspended solids and ambient currents at the discharge site, and should be evaluated. EPA reviewed seabed deposition data provided by the applicant and found no accumulation of solids (see section 3.d. in this document).

3. DO, Turbidity, and LEC Conclusions

Overall, the applicant has demonstrated the ability to meet the Hawaii water quality standards for DO, turbidity, and LEC at and beyond the ZID. Our review of the receiving water monitoring data indicates that the outfall does not have a significant effect on the receiving waters for these parameters.