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Concerning the
 Draft PSD/Covered Source Permit for
 Keahole Power Generating Station

By
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For the
 Public Hearing on Monday, September 12

RP:0165

Mr. Lou Erteschik
 Hearings Officer
 Environmental Health Administration
 Department of Health
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Mr. Erteschik:

The following testimony was prepared with the assistance of Anders Daniels and Thomas Schroeder from the University of Hawaii Meteorology Department.

We note, with regard to air quality issues, that questions of potential impact by the Keahole Power Generating Station have not been addressed satisfactorily. Many of the letters contained in the Final Environmental Impact Statement (FEIS) underscore concerns about potential air quality impacts in the Keahole area. In response to several demands made for air quality data (see attachment B of the rejoinder to Waimana Enterprises, Inc. in the FEIS) HELCO has stated that much of the information is proprietary. We harbor serious concerns over restriction of public access to data relevant to potential project impacts.

Our experts have reviewed available data collected as well as results of modeling undertaken for the Keahole power plant. With the information given, and considering the modeling methods applied, we suggest that further analysis of the air quality effects of the plant is necessary. The circulation in the Keahole area reflects a sea-land breeze regime. This gives a summer rainfall maximum which is opposite to the pattern experienced in other Hawaiian Island locations. The wind rose on page 3-2 of the

FEIS clearly demonstrates this wind variation. Another result of this circulation pattern is an inversion layer at approximately 150 feet.

In order to properly represent the sea-land breeze circulation and the movement of the emitted effluent in the atmosphere, a more sophisticated model than the ISCST2 or COMPLEXI needs to be employed. The model should be a three dimensional, land-sea breeze mesoscale design using data taken directly at the 104 foot level. The model should be able to integrate pollutants such as sulphur, which potentially could contribute to existing acid rain problems in the region. Results of such a modeling effort would give data which are much more appropriate for analyzing the plant's impact on air quality.

Thank you for the opportunity to comment.