CERTIFIED MAIL

November 27, 1981

West Hawaii Associates P. O. Box 1270 Kamuela, Hawaii 96743

Gentlemen:

Variance Application (V81-28)
Height Limits Restrictions
TMK: 6-4-1:2 South Kohala

After reviewing your application and the information submitted in behalf of it, the Planning Director by this letter hereby certifies the approval of your variance request to construct a 120-foot high wind energy unit (windmill) in lieu of the maximum allowable 55-foot height in an Agricultural zoned district.

The approval is based on the following conditions:

1. A special circumstance exists on the subject property not generally applying to surrounding properties in conjunction with the request for a height exception. The level three (3)-acre lot contains stands of trees 70-foot or more in height providing both an aesthetic addition plus serving as a practical and needed windbreak for the property. trees also cause a disruption in wind flow patterns resulting in the necessity of the proposed windmill blades having to be placed substantially above them in order to be effective energy generators (reference - "A Siting Handbook for Small Wind Energy Conversion Systems, U.S. Department of Energy, March 1980"). The request is therefore completely dependent on the flow and speed of the wind in order to function satisfactorily. A "clear" zone approximately 30 feet above the highest "obstruction" is therefore required for the wind energy system.

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The applicant intends to use the power generated by the windmill to be the main supply source for their electrical demands. The facility must be sited relatively close to the existing structures for efficiency purposes, and thus alternate locations throughout the subject property are limited. If the subject terrain were 'unobstructed' by the existing trees and buildings, the necessary height calculation would have determined that the present Zoning Code maximum 55-foot height would suffice.

- This set of circumstances (buildings, trees and localized wind patterns) exist to a degree which would not permit the establishing of an alternate energy system (the windmill) on the subject property without exceeding the district height limit of 55 feet. With the continuing local and national emphasis on utilizing alternate energy sources, the denial of this request would thus interfere with the most efficient manner of developing the subject property.
- 3. Due to the special circumstances involved with this request, approval of the Variance will not constitute a grant of special privilege inconsistent with limitations upon other properties under identical district classifications.
- 4. Approval of the Variance request would be consistent with the County General Plan and with local and national goals which encourage the development and use of alternate energy sources. Its approval will also be consistent with the district purposes which allow for agricultural and very low density residential use. In this particular case, the height request would not unreasonably infringe upon existing or potential development rights of surrounding properties, which are currently open pasture for cattle grazing, and agricultural density (three (3)-acre) residential uses.

This variance request is approved subject to the following conditions:

- Precise siting of the windmill tower shall abide by a
 minimum of one (1)-foot setback from all property lines for
 every one (1)-foot in height of the tower (1:1
 setback/height ratio).
- 2. Plans and construction of the total structure must be approved by a structural engineer or architect registered in the State of Hawaii.

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- 3. The applicant shall obtain and comply with Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958 as amended prior to obtaining a building permit.
- 4. The applicant shall submit plans for the proposed development and obtain a building permit for the structure within one year of the date of this letter.
 - 5. Granting of this Variance request does not construe or imply the County's preserving for the applicant any upwind easement by restricting in whole or in part, future development on other properties in the vicinity.
 - 6. The applicant shall comply with all other applicable State and County rules, regulations and requirements.

Should any of the foregoing conditions not be met, the Variance Approval may be deemed null and void.

If you have any questions on this matter, please feel free to contact us.

Sincerely,

SIDNEY FUKE Planning Director

DT:jrh

cc: Department of Public Works

Mr. John Crouch

bcc: Masa Onuma