FINAL REPORT

DOE/R4/10093--T1

DE84 000735

AT GRANT 10093 AWARDED to Jesse C. Donaldson.

Mr. Donaldson was awarded \$500 to construct a low-cost windmill that could be manufactured from local materials.

The grantee ~~had~~ prepared the models but his whereabouts cannot be determined. He indicated in his property/patent certificate that the model was still being developed. He advised in his quarterly reports that he had completed two models and had exhibited them at seven energy shows. He indicated he would still try to complete a full sized model even though he is 75 years of age now. He enclosed descriptions of two models that are attached.

This document will serve as the final report.

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Chas. R. Feltner
Chief, Program Management Branch

FP 44-80 R4100.93

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TO		SPEED-MEMO		13-0161	
J. C. Donaldson		PART NUMBER		DATE	
		2		6 AUG 81	
FROM		SUBJECT			
Dept of Energy - Region IV (PO/AT) 1655 Peachtree Street, NE Atlanta, GA 30367		Grant DE-PC4480410093			
MESSAGE					

Dear Grantee:

We are concerned about the status of your Appropriate Technology project for one or more of the reasons checked below. Would you please advise us as soon as possible if we are incorrect and what you intend to do to correct the deficiency if we are correct.

- ☐ We have not received a quarterly project progress report from you so we do not know what you are accomplishing.
- ☒ We did not receive a quarterly project progress report for either of the last ~~two~~ ^{three} quarters so we don't know what you are accomplishing.
- ☐ You have not requested any of your grant funds.

Your prompt attention to this matter will be appreciated.

Respond on the section below and retain a copy for your records.

If you need any guidance on this please let us know.

SIGNATURE

Charles H. Reilly, Energy Conservation Program Spec

REPLY

I have completed two models of my windmill in the past year. Both would be considered about half size, suitable for mounting on small modified boat trailer.

I have exhibited models and posters at seven energy shows in Florida during the past year and a half.

In May the local paper ran a story on my work with windmills and part of the story was picked up and run by most of the Florida newspapers. As a result of the story, I acquired a lot of potential customers; but, at age seventythree, my major project will be to complete a full size model.

Florida is not considered windmill country by many but the coastal regions can count on up to 15 MPH nearly every day in the year. My location for the large model is six miles from the Atlantic Ocean on Merritt Island.

Attached is a brief description of the two models I am currently working on.

SIGNATURE

Jesse C. Donaldson

DATE

Aug. 17, 1981

FLORIDA WINDMILL

FLORIDA WINDMILL IS AN ARRANGEMENT OF SEVERAL OLD IDEAS COMBINED WITH A FEW NEWER ONES, SUCH AS A HEAVY FLYWHEEL FOR STORING ENERGY; ALSO, A DEVICE (NOT SHOWN) FOR AUTOMATICALLY ACCELERATING THE FLYWHEEL WITH THE INCREASING WIND VELOCITY.

THE TWO-BLADED RIGIDLY MOUNTED MODEL WITH GUY WIRES IS EQUIPPED WITH WEATHER VANE TYPE DEVICE FOR LOCKING BLADES IN A NEUTRAL, OR LOW, PROFILE POSITION IN EVENT OF HIGH WIND. FOR SIMPLICITY, THE LARGER MODEL LOCKING SYSTEM WOULD BE OPERATED MANUALLY.

THE THREE-BLADED MODEL IS MOUNTED ON A FLEXIBLE TOWER, OR SHAFT, AND IS ALLOWED TO BEND IN THE WIND BUT WILL CONTINUE TO OPERATE EFFICIENTLY IN HIGHER WIND VELOCITIES. THIS MODEL IS ALSO EQUIPPED WITH A FLYWHEEL. THIS MODEL MAY BE LOWERED TO A HORIZONTAL POSITION IN EVENT OF HIGH WIND CONDITIONS. ALL THE HEAVY COMPONENTS OF THIS WINDMILL WOULD BE LOCATED AT GROUND LEVEL AND NOT ON THE TOWER, AS IS NOW BEING DONE ON THE LARGER HORIZONTAL AXIS TYPES.

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