



ELV 000031

**SUPPLEMENTAL AGREEMENT NO. 1  
TO MEMORANDUM OF UNDERSTANDING  
BETWEEN  
UNITED STATES DEPARTMENT OF ENERGY  
AND  
THE FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE**

This Supplemental Agreement No. 1 is made and entered into by and between the UNITED STATES DEPARTMENT OF ENERGY, hereinafter referred to as "the DOE," and the FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, hereinafter called the "Forest Service," witnesseth:

Whereas, effective September 15, 1964, the Forest Service and a predecessor agency of the DOE, the U.S. Atomic Energy Commission ("AEC"), entered into a Memorandum of Understanding for the purposes of AEC carrying out ecological studies in the Luquillo Experimental Forest ("Caribbean National Forest of Puerto Rico"); and

Whereas, under the sponsorship of the AEC, the University of Puerto Rico ("UPR"), as part of said ecological studies, inoculated two trees with Cesium on September 18, 1968; and

Whereas, as of September 18, 1968, the UPR was not required to obtain or possess a special license for the aforementioned use of Cesium; and

Whereas, on September 29, 1976, a predecessor agency of the DOE, the Energy Research and Development Administration, hereinafter referred to as the "ERDA," and the Forest Service did enter into a succeeding Memorandum of Understanding to allow ERDA to continue ecological studies of tropical forestry ecosystems in an 80-acre site within the Caribbean National Forest of Puerto Rico for an indefinite term; and

Whereas, on September 29, 1976, the ERDA and the Forest Service also entered into a Secondary Memorandum of Understanding to make land and facilities in and adjacent to El Verde Field Station located in the Caribbean National Forest available for an initial term of five years with renewals in five-year increments; and

Whereas, as a result of mission changes, the DOE has concluded its ecological studies at the site and facilities; and

Whereas, it is the mutual desire of the DOE and the Forest Service to terminate the aforementioned Memoranda of Understanding; and

Whereas, the DOE has completed environmental cleanup, decontamination, and restoration of said site and Facility with the primary objective to terminate said Memoranda of Understanding with the Forest Service for use of the site, and to transfer the DOE-owned improvements thereon to the custody and control of the Forest Service;

Therefore, the original Memorandum of Understanding and the Secondary Memorandum of Understanding are hereby terminated as of the date of execution of this agreement. Additionally, the DOE-owned improvements identified in Exhibit A to this agreement will be transferred to the sole ownership and custody of the Forest Service on the date of execution of this agreement. The parties further agree that there will be a subsequent transfer of DOE improvements to the Forest Service and a new permit issued by the Forest Service to DOE to cover the use of one quarter of an acre of land on which one tree irradiated with Cesium 137 is located.

The above terms and conditions are acknowledged and agreed upon as indicated by the signatures affixed below:

**UNITED STATES  
DEPARTMENT OF ENERGY**

By: Cindy B Hunter  
Title: Realty Officer  
Date: 9-23-96

**FOREST SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE**

By: [Signature]  
Title: Forest Supervisor  
Date: 9/23/96

**EXHIBIT A**

**DOE-OWNED REAL PROPERTY IMPROVEMENTS  
EL VERDE RESEARCH STATION**

<u>Description of Improvements</u>	<u>Original Acquisition Cost</u>	<u>Gross Floor Area (Sq. Ft.)</u>	<u>Net Usable Area (Sq. Ft.)</u>
Laboratory and Data Acquisition Center Building and associated improvements to former USFS residence	\$151,485	2,048	2,048
Emergency Generator Building	--	--	--
Above-ground Diesel Storage Tank	--	--	--
Pole-mounted Transformer	--	--	--

## MEMORANDUMS OF UNDERSTANDING (EL VERDE, PUERTO RICO)

- I.A. Master MOU between AEC & Forest Service, Dept. of Agriculture  
dated 9-15-64 thru indefinite term.

To conduct ecological studies of effects of gamma radiation upon tropical forests.

- B. Cooperative Agreement (Supplement No. 1 to Master MOU)  
dated 9-15-64 executed in conjunction with Master MOU

Forest Service agreed to make forested land within Luquillo Experimental Forest available to AEC under special use permit.

- C. Cooperative Agreement (Supplement No. 2 to Master MOU)  
dated 9-15-64 executed in conjunction with Master MOU

This was titled as a "Term Special Use Permit" and granted AEC permission to use 155 acres of land adjacent to El Verde Field Station, Tract 11, Compartment 1. Terminates the Special Use Permit dated 6-1-63.

- D. Amend. No. 1 to Supplement No. 2 dated 3-30-65.

Reduces acreage to 140 from 155.

- E. Amend No. 2. to Supplements No. 1 and 2 dated 9-9-69.

Supplement No. 1 is amended to provide for AEC construction of towers, fences, buildings, etc.. Supplement No. 2 is amended to provide for use of lands or improvements for a period of 10 years.

- F. Amend. No. 3 to Supplement No. 2 dated 5-5-70.

Amends to change lands (Compartments No. 42 and 50) and changes acreage to 156 from 140.

- G. Amend. No. 4 to Supplements No. 1 and 2 effective 9-15-74.

Supplement No. 1 is amended to provide for continuing coverage until a revised MOU is signed. Supplement No. 2 is amended to provide for land coverage until revised MOU is signed.

**THIS MOU WAS SUPERSEDED BY MOU DATED 9-29-76.**

- II.A. Master MOU between ERDA & Forest Service, Dept. of Agriculture  
dated 9-29-76.

To conduct ecological studies of tropical forestry ecosystems in Caribbean National Forest (Luquillo Experimental Forest).

- B. Secondary MOU dated 9-29-76 agrees to make lands and facilities in and adjacent to El Verde Field Station, Tract 11, Compartment 1 available. Provides for renewals in 5-year increments

- LUIS RIVERA  
Caribbean  
Nat'l. Forest

~~809-887-1875~~

809-766-5588

or 809-766-5335

EL YUNQUE 809 766-5936  
NAT FOREST SITE OFFICE

CEER-EL VERDE - NIMIA  
NRC LICENSE 3/21/91

- trees
- Tritium utilized for studies
- Gas chromatograph (radiation source) was needed at El Verde

That license can be transferred & CEER could write an amendment for the license.

U.S. Forest Service  
El Yunque Ranger District  
P.O. Box B  
Palmer, PR 00721

FAX (809) 766-5827

3/21

JACK:  
I received a call from Bob Waide, to inform me that they Dr. Lugo & him will be available for a telephone call at 4:30pm today. He expects us to call and have with us any one from our office who needs to be part of this conference call. Luis

1425.20  
ELV

SECONDARY MEMORANDUM OF UNDERSTANDING  
BETWEEN  
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION  
AND  
THE FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE

THIS MEMORANDUM OF UNDERSTANDING, made and entered into this 29th day of September one thousand nine hundred and seventy-six, by and between the Energy Research and Development Administration hereinafter referred to as "ERDA" and the Forest Service, United States Department of Agriculture, hereinafter called the "Forest Service", is a Secondary Memorandum to the Master Memorandum of Understanding dated September 29, 1976.

The purpose of this Secondary Memorandum is to provide for use of the portions of the Caribbean National Forest for research activities.

Permission is hereby granted to ERDA to use, for the general purposes of research as outlined in the Master Memorandum of Understanding and subject to the conditions set out below, the following described subject lands or improvements for a period of five years from the date hereof:

1. Lands and facilities in and adjacent to the El Verde Field Station, tract 11, compartment 1, Espiritu Santo Working Circle to include all structures within the immediate vicinity (specifically a residence and a detached office-garage laboratory complex of approximately 2 acres). Said area will be fenced with green rubber-coated cyclone fence.
2. Field studies of natural forest environment to be located primarily in but not limited to that portion of the Sonadora drainage described as follows. Only that area on the west side of the Sonadora between Highway 186 and the proposed El Cacique Wilderness Study Area. Along Highway 186, a road side zone of 100 feet will not be included. Use of this area and other parts of the forest (if such use involves alteration of the forest cover by clearing, burning, thinning, or any other change) will be covered by a project work plan subject to approval by the Forest Service.
3. Any proposed field studies not confined to this area must be approved before beginning the project.

In order to stay within the legal limits of the Act of March 4, 1915, as amended July 28, 1956, at no time will field studies involving site alteration or establishment of permanent or temporary installations aggregate more than 80 acres. This includes all acreage actually under study as outlined in items 1, 2, and 3 above.

The exercise of any of the privileges granted in this Memorandum constitutes acceptance of all the conditions of this Memorandum.

Individually and corporately, ERDA personnel or their investigative cooperators will be kept aware of all pertinent safety regulations regarding their particular activity. These will include regulations as set forth in the Forest Service Health and Safety Code, appropriate Commonwealth safety regulations and the safety regulations under which ERDA operates.

This Memorandum is granted subject to the following conditions:

1. The use and occupation of the premises by ERDA shall be without cost or expense to the Forest Service, except as may be provided in a separate agreement between ERDA and the Forest Service.
2. This Memorandum will, when executed, replace the special use permit dated September 14, 1964, covering the same general area for the same general purposes.
3. This Memorandum is issued for the period ending June 30, 1981, with the provision that it may be extended for subsequent periods of 5 years each thereafter as mutually agreed upon by the Forest Service and ERDA.
4. Development plans, layout plans, construction, reconstruction, or alterations of improvements, or revision of layout or construction plans for this area must be approved in advance and in writing by the forest officer in charge. Trees or shrubbery on the permitted area may be removed or destroyed only after the forest officer in charge has approved and has marked or otherwise designated those which may be removed or destroyed. Trees, shrubs, and other plants may be planted in such a manner and in such places about the premises as may be approved by the forest officer in charge.
5. ERDA shall maintain the improvements and premises to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the forest officer in charge. It is understood and agreed, however, that in matters of radiation safety and related health protection the determination of ERDA shall be controlling.

3.

6. This Memorandum is subject to all valid claims.
7. ERDA, in exercising the privileges granted by this Memorandum, shall comply with the Regulations of the Department of Agriculture and all Federal, State, county, and municipal laws, ordinances, or regulations which are applicable to the area or operations covered herein.
8. ERDA shall take all reasonable precautions to prevent and suppress forest fires.
9. ERDA shall protect from damage the land and property of the United States covered by and used in connection with this Memorandum, and to the extent permitted between agencies of the United States shall be liable for any damage resulting from negligence or from the violation of the terms of this Memorandum or of any law or regulation applicable to the national forests by ERDA or by any agents or employees of ERDA acting within the scope of their agency or employment.
10. ERDA shall fully repair all damage, other than ordinary wear and tear, to national forest roads and trails caused by ERDA in the exercise of the privilege granted by this Memorandum.
11. On or before the expiration of this Memorandum, or its relinquishment by ERDA, ERDA shall vacate the premises, remove its property therefrom and restore the premises to a condition satisfactory to the forest officer in charge, ordinary wear and tear and modifications to the vegetation necessarily resulting from the research program excepted. With the written concurrence of the forest service officer in charge, fences, structures, etc., may be left in place.
12. This Memorandum is not transferable.
13. The temporary use and occupancy of the premises and improvements herein described may not be sublet by ERDA to third parties without the prior written approval of the Forest Service.
14. This Memorandum may be terminated by either party subject to a 90 day notice of such intent.

15. Avalanches, rising waters, high winds, falling limbs or trees, and other hazards are natural phenomena in the forest that present risks which ERDA assumes. ERDA has the responsibility of inspecting the site or area of activity for dangerous trees, hanging limbs, and other evidence of hazardous conditions and after securing permission from the Forest Service, of removing such hazards.

16. ERDA shall dispose of refuse resulting from this use, including waste materials, garbage and rubbish of all kinds in the following manner and shall guard the purity of streams and living waters:

Combustible materials may be burned in a container for that purpose or in safe areas. Non-combustible and decayable material will be removed to an active sanitary landfill regularly so as not to accumulate in an unsightly or odoriferous manner.

17. No waste or byproduct shall be discharged if it contains any substances in concentrations which will result in substantial harm to fish and wildlife or to human water supplies. Storage facilities for materials capable of causing water pollution if accidentally discharged shall be located so as to prevent any spillage into waters or channels leading into water, that would result in substantial harm to fish and wildlife or to human water supplies.

18. ERDA shall protect the scenic and aesthetic values of the area under this Memorandum, and the adjacent land as far as possible with the authorized use, during construction, operation and maintenance of the improvements and study projects.

19. ERDA will take reasonable measures to prevent and discourage vandalism or disorderly conduct and when necessary will call in the appropriate law-enforcement officer.

20. ERDA shall be responsible for the prevention and control of soil erosion and gulying on the area covered by this Memorandum and the lands adjacent thereto, and shall provide preventive measures as required by specifications outlined in each project work plan when submitted for approval by the Forest Service.

21. All butane, propane, or other liquified petroleum-gas equipment shall be installed and operated in accordance with the laws and regulations of the Commonwealth.

5.

- 22. The roofs of all buildings shall be kept reasonably clear of leaves, twigs, and other debris.
- 23. All electrical equipment and facilities installed and operated shall conform to the National Electric Code and the equipment must have been approved by the American Insurance Association.
- 24. ERDA shall install fire extinguishers and fire fighting apparatus of types, of capacities, in numbers and at locations approved by the Forest Supervisor. This equipment shall be in readiness at all times for immediate use, and shall be tested each year, at such times as may be required by the Forest Service.
- 25. No fences shall be erected upon the premises except by written permission of the Forest Service. All fences constructed by Forest Service permission will be attached to posts, and in no case will the fence wire be fastened to live trees.
- 26. Nothing in this Memorandum shall be construed to imply permission to build or maintain any structure not specifically named herein or approved by the Forest Service in the form of an amendment to this Memorandum. Additional structures requiring specific approval shall include but not be limited to: signs, fences, nameplates, pipe lines, and antennas.
- 27. All provisions of the Master Memorandum are applicable to this Secondary Memorandum.

IN WITNESS WHEREOF, the parties hereto have executed this Secondary Memorandum of Understanding this 27th day of SEPTEMBER, 1976.

Date SEP 17 1976

ENERGY RESEARCH AND DEVELOPMENT  
ADMINISTRATION

By Joseph A. Lambert  
Title \_\_\_\_\_

Date September 29, 1976

FOREST SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE

By [Signature]  
Title Director  
Institute of Tropical Forestry

Date September 29 1976

By Charles L. Noble  
Title Acting Forest Supervisor



Department of Energy  
Oak Ridge Operations  
P.O. Box 2001  
Oak Ridge, Tennessee 37831- 8620

1. PAT MA  
2. Jack \_\_\_\_\_

June 26, 1990

Dr. Alida Ortiz  
Acting Director  
Center for Energy and Environment Research  
University of Puerto Rico  
G.P.O. Box 3682  
San Juan, Puerto Rico 00936

Dear Dr. Ortiz:

#### TERMINATION OF DOE USE PERMIT AT EL VERDE FACILITIES

During a recent visit to Puerto Rico, Jack Newman and Steve Morrell representing DOE, met with CEER and U. S. Forest Service (USFS) representatives to discuss the termination of an existing Memorandum of Understanding (MOU) between DOE and USFS for the use of land and facilities at the 80 acre Caribbean National Forest research site (El Verde). As a result of that meeting various corrective actions/restoration were identified that would allow the partial termination of the MOU and transfer to USFS buildings that DOE constructed at that site. The various actions identified, that apparently can be accomplished at a minimal cost and effort, are as follows:

1. Removal of asbestos siding and roofing from a small 8'x10' building that houses the emergency generator for the facility.
2. Removal of asbestos roofing and several asbestos panels from a small porch on the back of a building owned by USFS.
3. Land survey to segregate a 2-acre site in area that will remain under DOE custody until a radiological survey is performed to determine extent of contamination. This area is where two trees were injected with Cs-137 in studies performed by DOE at that site.
4. Installation of a fence and radiological warning signs along the perimeter of the 2-acre site.

Based on the discussions held in Puerto Rico all parties involved indicated interest in pursuing this approach as expeditiously as possible for transferring the DOE-owned buildings, ending the existing MOU, and establishing a new MOU for the 2-acre site. To enable us to obtain the necessary funds and start work this Federal fiscal year we request your support in providing us cost estimates for each of the above activities and for CEER administrative cost in support of this effort by July 13, 1990.

Alida Ortiz

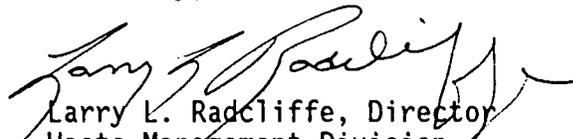
June 26, 1990

-2-

This letter serves to formalize verbal request made by Jack Newman to Bob Waide during his visit to Puerto Rico, and subsequently confirmed by telephone conversation between Luis Velazquez of my staff with Dr. Waide on May 31.

If you have any questions regarding this request, please contact Luis Velazquez at (615) 576-0731.

Sincerely,

  
Larry L. Radcliffe, Director  
Waste Management Division

cc:

J. Newman, AD-42, ORO  
R. Waide, CEER  
N. Irizarry, CEER

*pd*           

May 11, 1990

AD-424:JRNewman

TERMINATION OF MEMORANDUM OF UNDERSTANDING (MOU) - USE OF CARIBBEAN NATIONAL FOREST LAND AND FACILITIES

W. D. Adams, Assistant Manager for Environmental Restoration and Waste Management

On April 30-May 3, 1990, Jack Newman and Steve Morrell visited Puerto Rico to (1) inspect DOE facilities at El Verde and Mayaquez, (2) ascertain the status of work to repair hurricane damage to the El Verde facilities, (3) meet with University of Puerto Rico (UPR) representatives to discuss contract closeout requirements, and (4) finalize plans for a partial termination of the Memorandum of Understanding which governs our use of the 80 acre Caribbean National Forest research site and facilities. Summarized below are our observations at the El Verde site, including the discussions which were held with U. S. Forest Service (USFS) and UPR representatives to finalize plans for the partial termination of the MOU. A separate memorandum will address our inspection and discussions concerning the Mayaquez facilities and closeout requirements for the contract with UPR.

With respect to the El Verde site, a meeting was held in Rio Predras on May 2, 1990, with the following representatives of the USFS and UPR:

Dr. Ariel Lugo, Director, Institute of Tropical Forestry, U. S. Forest Service

Loren Huffaker, U. S. Forest Service

Robert Waide, Director, Ecology Research, University of Puerto Rico

Nimia Irizarry, Director, Environmental Quality and Occupational Safety, University of Puerto Rico

During the discussions we reiterated our desire for transferring the DOE owned buildings located on the 2 acre research station to the custody of the USFS. In response, Dr. Lugo and Messers. Huffaker and Waide said that they hoped the transfer could be accomplished as expeditiously as possible. UPR has received funds for research from both the National Science Foundation and the National Atmosphere Deposition Program. This research would be carried out at the El Verde research station by UPR in collaboration with the USFS. The entire 2 acre research station site and most of the forest research area would be required in connection with this research effort. Initially DOE plans called

for retaining the entire 78 acre forest research area until characterization and remediation of any radioactive contamination is complete. A subsequent discussions with Luis Velazques, Research and Waste Management Division, and Ray Foley, Oak Ridge National Laboratory, indicates that we can accommodate USFS requirements. Mr. Foley, who coordinated the initial radiological survey of the El Verde site said that a 2 acre site surrounding the irradiated trees would be more than sufficient for retention by DOE.

It is our recommendation that we proceed with efforts to transfer (1) the 2 acre research facility including the DOE buildings thereon, and (2) 76 acres of forest research area to the custody of the USFS. We would obtain a succeeding use permit from the USFS for a 2 acre plot of land surrounding the irradiated trees until such time as the contamination is remediated. It is quite possible that an arrangement could be worked out with the USFS concerning the disposition of the trees. USFS has advised us in writing that they would like to retain the trees for research purposes. USFS has provided us with a draft standard use permit which would be used in granting DOE any succeeding rights for use and control of the 2 acre site surrounding the trees. We will need to address in the permit any technical requirements for use of the site; i.e., characterization, remediation, health and safety requirements, etc. In this regard, we request that the Research and Waste Management Division prepare and provide us with suitable technical requirement clauses for inclusion in the use permit.

During our discussions Mr. Huffaker advised that, as previously requested by this office, he had inspected the El Verde buildings and the only corrective actions/restoration which USFS would like to see taken care of prior to the transfer of the El Verde research station was the remediation of the asbestos problem. Based on our findings during the subsequent inspection of the El Verde site, it is apparent that only minimal cost and effort would be required to remediate the asbestos problem. Involved would be (1) removal of asbestos siding and roofing from a small 8'x10' building which houses the emergency generator for the facility, (2) removal of asbestos roofing and several asbestos panels from a small porch on the back of a building owned by the USFS, and (3) repair of a hole which was knocked into the asbestos siding of the Data Acquisition Center Building during Hurricane Hugo. Mr. Waide is obtaining estimates for the removal and disposal of the asbestos on the porch and generator building and will advise of the costs involved. To preclude any delay in accomplishing the transfer of the El Verde facilities to the custody of the USFS we recommend that funds be made available for this effort.

During our inspection of the area containing the irradiated trees we observed that the woven wire fence which encompasses the area around the trees was in need of replacement. Most of the fence has been broken down and is overgrown with vegetation. We recommend that funds be made available to (1) obtain a survey of the 2 acre site that DOE needs to retain around the trees, and (2) install a woven wire fence around the perimeter for this area and post it with radiation warning signs.

Progress on repairing damage and correcting hazards caused by Hurricane Hugo is progressing. UPR is working with the USFS to accomplish repair of the access road leading to the research station. Plans call for resurfacing the entire length (300 meters) of the road. The USFS would provide matching funds for this effort. The initial bids for repair of the canopy towers and walkway is \$12,000 with an estimated 3 months for completion of the repair work. Damaged portions of the walkway will be excessed. The USFS is also contributing funds for this work. The damaged power line to the research facility has been replaced by the local utility company. No DOE funds were committed for the power line restoration work. Repair to the buildings on the site is progressing with \$1,800 expended to date. Work accomplished includes the reroofing of the main laboratory building. Plans call for the resealing of the roof on the other DOE laboratory building. Also, the emergency generator which serves the facility has been repaired. Our observations indicate that Mr. Waide and UPR have been very responsible in assuring that the El Verde facility is properly maintained and that the funds provided for the repair of hurricane damage are utilized in an appropriate manner.

As previously stated, and to preclude the need for the continued expenditure of funds for the maintenance of the El Verde Research Station, the transfer of the facility to the custody of the USFS should be accomplished as soon as possible.

*1s/ Jack R. Newman*

Jack R. Newman  
Procurement and Contracts Division

CONCUR:

*1s/*

Richard P. Nicholson  
Realty Officer  
Procurements and Contracts Division

cc:

- Larry L. Radcliffe, ER-12
- Peter D. Dayton, AD-421
- R. E. Lynch, AD-42
- Luis E Velazquez, ER-12
- Doug Underwood, ER-12
- R. P. Nicholson, AD-42
- Steve Morrell, AD-423

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USFS 3-1-809-766-5335

~~Dan Knollman, Forest Service~~  
Department of Energy ~~Supervisor~~

Oak Ridge Operations  
P.O. Box 2001  
Oak Ridge, Tennessee 37831-8755

887-2875

FEB 03 1989

*Mr. Loren Huffmader*  
*USFS*  
*8-498-5820*  
*809-887-2875*

*Jose Salinas, Forest*  
*Service Supervisor*

Mr. Bernie Rios  
Forest Service Supervisor  
U.S. Forest Service, Department  
of Agriculture  
Caribbean National Forest  
P. O. Box 25,000  
Rio Piedras, Puerto Rico 00928-2500

*Dow Raschiffe*  
*Prop. Mgmt. Officer*  
*8-257-2609*

*ALSO David TRULL OR*  
*GERALD TYLER*  
*257-2659*

Dear Mr. Rios:

TERMINATION OF MEMORANDUM OF UNDERSTANDING - USE OF CARIBBEAN  
NATIONAL FOREST LAND AND FACILITIES PA

The Department of Energy (DOE), under a Memorandum of Understanding arrangement, is permitted access to and use of certain U.S. Forest Service (USFS), Department of Agriculture land and facilities which are located in the Caribbean National Forest of Puerto Rico. The University of Puerto Rico (UPR), under a contract to DOE, has been utilizing the land and facilities for the conduct of various ecological studies of tropical forestry ecosystems.

UPR's contract with DOE for operation of the Center for Energy and Environmental Research expired on September 30, 1988, and closeout activities are currently in progress. As a part of the closeout process a determination has been made that DOE no longer has a programmatic need for continued use of the land and facilities which are covered by the MOU.

Consequently, as you were advised by Jack Newman and Luis E. Velazquez of this office in a telephone discussion on January 18, 1989, we would like to begin the process necessary to satisfy the termination requirements of the MOU. Included in this process would be the accomplishment in accordance with the terms and conditions of the MOU of (1) any necessary restoration/cleanup of the site, and (2) conveyance of the custody and accountability of any real property improvements to remain on the site to USFS. In this regard please advise this office of specific requirements you feel necessary in connection with the MOU's termination. We tentatively plan to be in Puerto Rico in connection with the UPR contract closeout on February 22-24, 1989, and if you are agreeable we would like to arrange to meet with you and your staff to work out necessary details and discuss any termination requirements.

Mr. Bernie Rios

2

FEB 03 1989

FEB 03 1989

Also, please be aware that because of UPR's interest in continued use of the site and certain of the facilities, it plans to finalize a separate MOU with USFS for continued use of same.

We appreciate the use of USFS land and facilities for our needs in Puerto Rico and be assured that we will cooperate fully with your Department in the restoration of the site and the reconveyance of the real property interests.

Sincerely,

ORIGINAL Signed by

Richard P. Nicholson  
Realty Officer

AD-424:JRNewman

- bcc: P. T. Marquess
- R. E. Lynch
- S. Morrell
- L. Radcliffe, ER-12
- L. Velazquez, ER121
- L. Clark, DP-85
- W. Hibbitts, EPP
- T. Knox, DOE/HQ, MA-222.1 (Forrestal)
- R. E. Stevens, DOE/HQ, ER-44 (Forrestal)
- H. H. McCammon, DOE/HQ, ER-75 (Germantown)
- Ms. NIMIA E. IRIZARRY, CCR

AD424  
JRNewman

ER-12  
LVelazquez

ER-12  
LRadcliffe

AD42  
RPNicholson

*JRW*  
1/23/89

*LJ*  
1/26/89

*112-6*

*2-2-89*

DOE owns the facilities.

Program decision not made to restore + reconvey



CENTER FOR ENERGY AND ENVIRONMENT RESEARCH  
UNIVERSITY OF PUERTO RICO

September 30, 1976

Cont # 4817

Mr. Joseph A. Lenhard  
Director,  
Research and Technical Support Division  
Oak Ridge Operations Office  
U.S. Energy Research and Development Adm.  
P. O. Box E  
Oak Ridge, Tennessee 37830

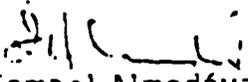
Dear Mr. Lenhard:

In compliance with your letter of September 17, we are returning two signed copies of the following documents:

- 1) Master Memorandum of Understanding between ERDA and the Forest Service which provides for Forest Service cooperation indefinitely with CEER in conducting various ecological studies of tropical forestry ecosystems in the Caribbean National Forest of Puerto Rico;
- 2) Secondary Memorandum of Understanding between ERDA and the Forest Service which grants use and occupancy of portions of the Caribbean National Forest by the CEER Terrestrial Ecology Program until June 30, 1981.

In response to the last paragraph of your letter, we wish to recommend that we continue to operate under the Memoranda of Understanding between ERDA and the Forest Service which will allow us to maintain our capability of utilizing radiotracer technologies in our research efforts when required.

Sincerely yours,

  
Ismael Almodóvar  
Director

MB:bgc.  
Enclosures  
cc: Dr. Richard G. Clements

1055

Enclosure 9

4040

MASTER COPY  
1977  
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION  
AND  
THE FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE

THIS MEMORANDUM OF UNDERSTANDING, made and entered into this 29th day of Sept., one thousand nine hundred and seventy six, by and between the Energy Research and Development Administration, hereinafter referred to as "ERDA" and the Forest Service, United States Department of Agriculture, through the Director of the Institute of Tropical Forestry, hereinafter referred to as the "Forest Service", witnesseth:

WHEREAS, ERDA, through its Center for Energy and Environment Research operated by the University of Puerto Rico under Contract No. E-(40-1)-1833, wishes to conduct various ecological studies of tropical forestry ecosystems in the Caribbean National Forest of Puerto Rico. These studies will cover all aspects of ecology including background environment, plants, and animals.

WHEREAS, the Forest Service as an agency of the Federal Government is responsible for and conducts a program of forest research in Puerto Rico which is of use and value to owners and operators of forest land and forest industries in Puerto Rico and throughout the Caribbean tropics; and

WHEREAS, distinct advantages will accrue by correlating and coordinating respective programs of both parties;

NOW, THEREFORE, in consideration of the above premises and in the interest of mutual advantage in attainment of common objectives,

A. The Forest Service agrees to:

1. By means of a Secondary Memorandum of Understanding to make available to ERDA for use by the Center a mutually satisfactory area of forested land (Field Station) within the Caribbean National Forest (Luquillo Experimental Forest).
2. Make available its equipment and materials not needed for other purposes as required to facilitate the study.

3. Furnish assistance in planning and technical supervision of the forestry phases of any proposed studies, and the administration of the study areas.
4. Recognize the special responsibilities of ERDA in the area of radiation safety pertinent to the use of any radioactive material which might be proposed for use in any study undertaken, and to abide by current regulations and directives of ERDA or its designee with respect to all health protection and radiation safety aspects of this program.

B. ERDA agrees to:

1. Take primary responsibility for and provide general supervision of the Field Station and associated study plots in the conduct of the studies described under the terms of this Agreement, including the preparation of reports of results.
2. Bear the entire cost of the research program (except salaries and other costs of Forest Service personnel who might become engaged in specific studies), including but not limited to salaries, travel, materials, supplies, and construction costs.

C. It is Further Agreed by Both Parties:

1. That neither party will publish any results of the research undertaken under this Agreement without consulting the other. This is not to be construed as applying to popular publication of previously published technical matter. Publications may be joint or independent as may be agreed upon always giving due credit to the cooperation. In the case of failure to agree as to manner of publication or interpretation of results, either party may present the data and conclusions of the proposed manuscripts to the other. In such instances, the party publishing the data will give due credit to the cooperation but assume full responsibility for any statements of which there is a difference of opinion.
2. That the designated representatives of each party shall meet each year as needed to (a) consider expansion or continuation of the research program and/or its various projects and (b) of the studies as they become available.
3. That nothing herein shall be construed as obligating either party to expend, or as involving the United States in any

3.

contract or other obligation for the future payment of money in excess of appropriations authorized by law, and administratively made available.

4. To enter into working arrangements as occasion demands for the use of the Caribbean National Forest; and of laboratories, buildings and other facilities owned or operated by either party hereto for special work in forestry education, research or extension.

This cooperative work is authorized by the McSweeney-McNary Forest Research Act of May 22, 1928 (45 Stat. 699, as amended and supplemented; 16 U.S.C. 581, 581a-581i, 581i-1; and 76 Stat. 579); the Energy Reorganization Act of 1974 (88 Stat. 1233; 42 U.S.C. 5801-5891); and Sec. 601 of the Economy Act of June 30, 1932, (31 U.S.C. 686-686b). Work under this Agreement will be determined by specific working agreements entered into under authority of this instrument.

When signed by both parties this Memorandum of Understanding will replace a previous Memorandum of Understanding dated September 15, 1964, for the same general purposes. Said Memorandum was signed under the previous name of this same agency (The United States Atomic Energy Commission).

Either party may terminate this Memorandum of Understanding by providing 60 days' written notice. Unless terminated by written notice, this Memorandum will remain in force indefinitely.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding as of the date first above written.

ENERGY RESEARCH AND DEVELOPMENT  
ADMINISTRATION

By *E. A. Leonard*

Date \_\_\_\_\_

Title Research and Development Division  
Oak Ridge Operations

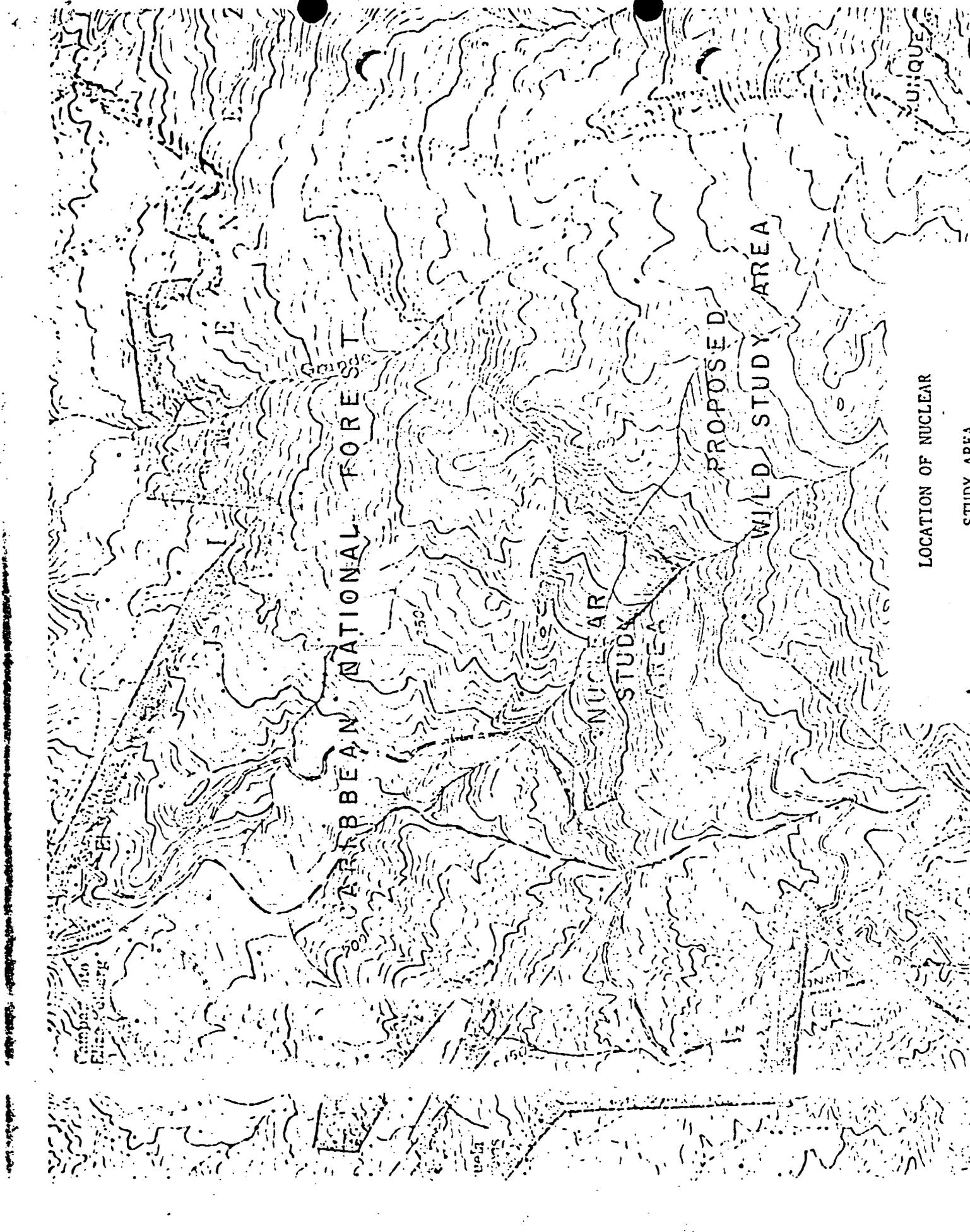
FOREST SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

By *Paul H. Adams*

Date September 29, 1976

Title Director  
Institute of Tropical Forestry





UNITED STATES  
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

OAK RIDGE OPERATIONS  
P. O. BOX E  
OAK RIDGE, TENNESSEE 37830

AREA CODE 615  
TELEPHONE 483-8611

SEP 17 1976

(40-1) 481<sup>n</sup>

Dr. Ismael Almodovar, Director  
Center for Energy and Environment Research  
Caparra Heights Station  
San Juan, Puerto Rico 00935

Dear Dr. Almodovar:

MEMORANDUM OF UNDERSTANDING BETWEEN ERDA AND THE FOREST SERVICE, USDA

The following documents which you submitted by letter dated July 6, 1976, have been corrected in accordance with the marked-up copy enclosed, have been approved on behalf of ERDA, and are enclosed in triplicate:

1. Master Memorandum of Understanding between ERDA and the Forest Service which provides for Forest Service cooperation indefinitely with CEER in conducting various ecological studies of tropical forestry ecosystems in the Caribbean National Forest of Puerto Rico.
2. Secondary Memorandum of Understanding between ERDA and the Forest Service which grants use and occupancy of portions of the Caribbean National Forest by the CEER Terrestrial Ecology Program until June 30, 1981.

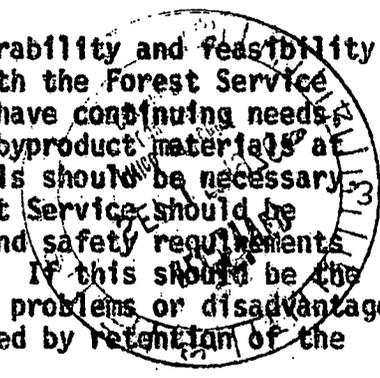
Please return one copy of each fully executed agreement for our records.

Our joint plans for transfer of ERDA property to UPR contemplated establishment of an agreement directly between UPR and the Forest Service for use by CEER of the El Verde Field Station and termination of the ERDA/Forest Service agreement. We do not feel that any action can be taken in this direction until construction of the data processing laboratory at El Verde is completed. In addition, we are concerned about the potential problems that would be created by termination of the ERDA agreement if CEER has continuing needs to possess and utilize byproduct (radioisotope) materials at El Verde. If CEER has such needs, we now feel that the time and effort required for UPR to obtain a byproduct license for this site, if this would even be possible considering Forest Service ownership, would not be justified simply to change the mechanism under which UPR is provided the use of Government-owned land and facilities at El Verde.



541

In order that we may make a decision on the desirability and feasibility of making a future change in the arrangements with the Forest Service for the use of site, please advise if CEER will have continuing needs, planned or potential, for possession and use of byproduct materials at El Verde. If continued use of byproduct materials should be necessary, we now believe the ERDA agreement with the Forest Service should be continued and, therefore, that the ERDA health and safety requirements would continue to apply to the El Verde studies. If this should be the case, I would also appreciate your advice on any problems or disadvantages to your long range CEER plans that would be caused by retention of the ERDA agreements with the Forest Service.



Sincerely,

Original Signed by  
Joseph A. Lenhard

Joseph A. Lenhard, Director  
Research and Technical Support Division

OR:BLJ

Enclosures:

1. Master Memo. of Understanding (3)
2. Secondary Memo. of Understanding (3)
3. Marked-up copy of 1 & 2 as submitted

cc w/o encls:  
C. W. Hill ✓  
 W. H. Travis

OAK RIDGE OPERATIONS  
ERDA

SEP 15 5 21 PM '76

U.S. DEPARTMENT OF ENERGY



UNITED STATES  
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION  
WASHINGTON, D.C. 20545

April 11, 1976

6108

ACTION MEMORANDUM

TO: Administrator

FROM: Assistant Administrator for Field Operations

SUBJECT: REQUEST FOR APPROVAL OF A CHANGE IN THE ARRANGEMENT WITH THE UNIVERSITY OF PUERTO RICO (UPR) FOR MANAGEMENT OF THE PUERTO RICO NUCLEAR CENTER (PRNC)

ISSUE

To determine the programmatic and institutional future of the Puerto Rico Nuclear Center facilities and recommend, if necessary, changes to assure that the PRNC's future management and operation are consistent with ERDA's programmatic requirements.

METHOD

An ERDA Task Force was appointed by the AFO at the request of the AAA and AES to address the issue. A counterpart Puerto Rican Task Force was appointed by the President, UPR, to complement the ERDA Task Force effort (Enclosure 1).

BACKGROUND

Funding

The PRNC was established in 1958, under the Atoms-for-Peace program, to train Latin American students in nuclear medicine and technology. Due to funding restraints, the training and education program has diminished over the years. The annual training budget (\$1.2 million in FY 76) has been used principally for basic operating support of the Center. AAA funding of this activity is expected to decrease to reflect the decreasing nuclear training needs at PRNC. However, PRNC's research role has grown, mainly with funds from AES (\$1.062 million in FY 76) and sound expertise has been developed in terrestrial ecology, tropical marine biology and tropical human ecology. AES support for the marine biology, terrestrial ecology and human ecology programs is expected to continue and may increase slightly to pick up overhead costs previously carried in other programs. Research in nuclear medicine and agriculture is not a high



priority ERDA program and direct support for such research is not provided in FY 76. (Additional narrative background material is contained in Enclosure 2. Additional funding information is contained in Enclosure 3.)

#### FACILITIES

ERDA facilities associated with the PRNC had an acquisition value of about \$9.0M. They are located at four sites on the island.

##### Rio Piedras Site

In the San Juan area are well-equipped medically-oriented facilities located adjacent to the UPR Medical School. These facilities include a biomedical building, animal quarters and a maintenance shop. These cost about \$3.0M.

##### Mayaguez Site

The principal nuclear facilities of the Center are located on 20 acres of property adjacent to the UPR campus in the city of Mayaguez. These facilities include a research reactor (TRIGA); nuclear laboratories and hot cells; and several adjacent structures housing offices, nuclear engineering facilities, maintenance shops, and a greenhouse. Cost of these facilities was about \$4.6M.

##### Cornelia Hill Site

Also located near the city of Mayaguez are the Cornelia Hill facilities which house the marine biology program. These are relatively new and well-equipped environmental analysis laboratories located on the ocean adjacent to the pier for the PRNC Research Vessel PALUMBO. Cost of facilities at Cornelia Hill was about \$860K.

##### Luquillo National Forest Site

In the Luquillo Rain Forest is a data acquisition laboratory costing \$120K.

(Additional facilities information is contained in Enclosure 4.)

#### RECENT EVENTS

A new contract with the University was authorized by the Administrator in June 1975 extending through 1981\*. Since then, the following significant events have occurred: ERDA has proposed a reduction in funding for FY 77; a decision was made to transfer the TRIGA reactor to ID; a

\* Contract AT(40-1)-1853 administered by ORO.

new Director, Dr. Ismael Almodovar, has assumed forceful and responsive leadership and initiated substantial cost reduction actions totaling \$700K to be realized in FY 77; the University has proposed that the PRNC become the core of a new Energy and Environment Center (Enclosure 6), which would serve both ERDA and address the unique problems of the Commonwealth.

#### OPTIONS FOR CHANGE

After reviewing a broad range of options the following three options for accomplishing this change were explored in depth:

1. Continue the PRNC GOCO Arrangement with the UPR - making certain management and funding modifications.
2. Develop a mixed ERDA GOCO and Non-GOCO Arrangement with the UPR.
3. Discontinue the ERDA GOCO operations, transferring facilities to the UPR, or others, or close them if appropriate, and executing ERDA programs under other contractual bases.

Additional summary prepared ERDA background material on these options, including pros and cons, is contained in Enclosure 5. Additional detailed PRNC prepared background materials are contained in Enclosure 6.

#### RECOMMENDED OPTION

A transition from Option 1 (current status) to Option 3 over a three to five year period was determined by the joint Task Force to be the management arrangement in the best interests of the U.S. Government and the University of Puerto Rico for the following reasons: (1) it will permit ERDA to continue its high priority program work; (2) low priority ERDA programs can be phased out; (3) it will provide for the most economical use of Government funds; and (4) this arrangement will promote UPR institutional development consistent with both Commonwealth and U.S. needs.

This management change has the following features: (1) ownership of most of the facilities/equipment would be transferred to the UPR over a three-year period (FY 77-79); (2) certain facilities of no value to either party would be closed or transferred to other government agencies as soon as possible; (3) ERDA priority research and training programs would continue through appropriate contractual arrangement; (4) ERDA would provide institutional and developmental funding support for a five-year period (FY 78-82) to provide the University an opportunity to both use the newly acquired ERDA facilities for other energy technology areas (conservation, solar, ocean thermal energy conversion, and materials research and development), and to develop professional capability in

these new program areas; and (5) educational and training funding will be adjusted during the next three years (FY 77-79) to reflect the actual training requirements of ERDA at the UPR.

ERDA transfer of properties to the UPR and commitment of developmental funds provide a unique opportunity for the UPR to acquire excellent facilities and diversify its research and developmental base to take advantage of Puerto Rico's unique geographic features and to solve Commonwealth problems. This course is considered by the Joint Task Force to be a reasonable one to chart for a minority institution that is striving to increase its professional status and competitiveness in academe, as well as to serve both the U.S. Government and the Commonwealth of Puerto Rico.

This recommended option has been arrived at by a Joint ERDA/PR Task Force through a deliberative process which included examination of historical data, on-site examination of the facilities, and a thorough analysis of the three reasonable options. Puerto Rico interest groups, including the PRNC, the Commonwealth and the University, have participated extensively in the entire process and endorse the recommendation. The President, UPR, can be expected to endorse this recommendation.

#### RECOMMENDATION

The Task Force recommends the Administrator approve a three to five year transition from Option 1 to Option 3.

Approve: Roberto S. T.

Disapprove: \_\_\_\_\_

Date: April 13, 1976

#### NEXT STEPS

1. The AFO will advise the Manager, ORO, and the President, UPR, of the Administrator's decision.
2. The AFO will direct the Manager, ORO, to execute a contractual agreement with UPR to effect the transition. (Administrative guidance for this step is contained in Enclosure 8.)
3. The AFO will direct the Director, HQS OPA, to prepare a public announcement and arrange for a joint UPR and ERDA facilities transfer ceremony.
4. The AFO will direct the Director, HQS OCA, to notify the Puerto Rico Resident Commissioner of the Administrator's decision.

5. The AAA will direct the Manager, ORO, to initiate a study to determine the amount and cost of radioactive clean-up required at the Mayaguez site and funding options for the work.
6. The AFO and AAA jointly will work out the details of introducing development and institutional funding categories into the FY 78 budget and reducing the education and training base funding. Joint Task Force proposed transition funding levels FY 77-82 are shown in Enclosure 7. (See Red Tab)
7. The AAA in cooperation with AIA will explore the potential of its Puerto Rico Energy Environmental Center as a focal point for Latin American training.

Concurrences

AES, BER, Liverman	Date <u>4/11/76</u>	Concur <u>[Signature]</u> Tab _____ Nonconcur _____
AAA, Romatowski	Date <u>3/29/76</u>	Concur <u>[Signature]</u> Tab _____ Nonconcur _____
GC, Johnson	Date _____	Concur <u>See Tab A</u> Tab _____ Nonconcur _____
AIA, Sievering	Date <u>4/9/76</u>	Concur <u>[Signature]</u> Tab _____ Nonconcur _____
OCR, Cantus	Date <u>4/9/76</u>	Concur <u>[Signature]</u> Tab _____ Nonconcur _____
ISL, Smith	Date <u>4/12/76</u>	Concur <u>F. S. M. R.</u> Tab _____ Nonconcur _____
OC, Greer	Date <u>4-5-76</u>	Concur <u>MC Greer</u> Tab _____ Nonconcur _____
OEO, Bowden	Date _____	Concur <u>See Tab B</u> Tab _____ Nonconcur _____
OPA, King	Date _____	Concur <u>See Tab C</u> Tab _____ Nonconcur _____

cc: Philip C. White, AFE w/Encl. 1-8  
Richard W. Roberts, ANE w/Encl. 1-8  
James L. Liverman, AES w/Encl. 1-8  
Robert L. Hirsch, ASGA w/Encl. 1-8  
Alfred D. Starbird, ANS w/Encl. 1-8  
Austin N. Heller, AC w/Encl. 1-8

## Enclosures:

1. ERDA and PRNC Task Forces ~~with~~ *added*
2. Background Information
3. Program Cost Summary
4. PRNC Land and Buildings Parts 1 and 2
5. ERDA Options Detail - Pros and Cons
6. Toward A UPR Energy Center Parts 1 and 2
7. Proposed Transition Funding Level
8. Suggested Administrative Approach to ORO for Transfer of Facilities to UPR



University of Puerto Rico  
 P. O. Box 4984-G  
 San Juan, Puerto Rico 00936

of the President

April 9, 1976

Dr. Vitalij Garber  
 Energy Research and Development Administration  
 20 Massachusetts Avenue NW  
 Washington, D.C. 20545

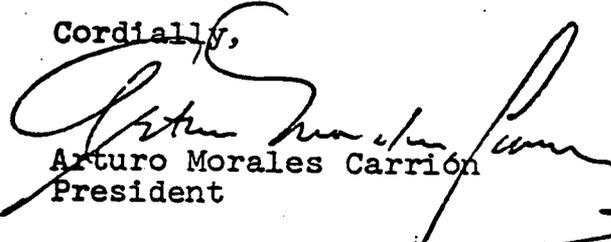
Dear Dr. Garber:

I take pleasure in writing to you to endorse the plan for the UPR/PRNC Energy and Environmental Research Center prepared by our joint task forces during the meetings at ERDA headquarters March 24-26. The time frame proposed in the action memorandum should be feasible for us, so I do hope that Dr. Seamans will find the memorandum acceptable.

I wish to express special appreciation to the members of the ERDA Task Force for responding so constructively to the letter that I sent with Dr. Almodóvar emphasizing our obligations as a minority institution and our present tight budgetary situation.

My deep thanks go to all the members of our respective task forces for their hard work and splendid cooperation. I have high hopes for the success of our common endeavors.

Cordially,



Arturo Morales Carrion  
 President

MAY 5 1976

V-3708B

ERDA TASK FORCE

Vitalij Garber (Chairman)  
 Technical Director  
 Office of the Assistant  
 Administrator for Field Operations

Russell Ritchie (Alternate Chairman)  
 Special Assistant to the Assistant  
 Administrator for Administration

John Whitnah  
 Office of the Assistant Administrator  
 for Environment and Safety

Jeff Swinebroad  
 Deputy Associate Director for  
 Research and Development  
 Division of Biomedical and  
 Environmental Research

James Kellett, Jr./Harold H. Young  
 Division of University and  
 Manpower Development/AAA

Joseph A. Lenhard, Director  
 Research and Technical Support Division  
 Oak Ridge Operations Office

Gail Bradshaw  
 Chief, Conservation, Environment and  
 Safety, News Branch  
 Office of Public Affairs

PRNC TASK FORCE

Ismael Almodovar (Chairman)  
 Acting Director  
 Puerto Rico Nuclear Center

Flavio Acarón, Dean  
 School of Engineering  
 Mayagues Campus

Manuel Gómez, Dean  
 College of Natural Sciences  
 Rio Piedras Campus

Juan J. Rigau, Director  
 Office of Petroleum Fuels Affairs  
 Office of the Governor  
 Commonwealth of Puerto Rico

Conrado F. Asenjo  
 Associate Dean  
 School of Medicine

Paul Harrison (Liaison)  
 Special Assistant to  
 UPR President

Luis E. Boothby  
 General Administrative Officer  
 Puerto Rico Nuclear Center

MANAGEMENT-FINANCE SUB-COMMITTEE

Petra L. de Toro  
 Acting Director  
 Office of Personnel  
 UPR Central Administration

Irma Vázquez, Director  
 Budget Division  
 UPR Central Administration

Andrés Medina-Peña  
 Acting Director  
 Finance Division  
 UPR Central Administration

## BACKGROUND INFORMATION

Under its present form of government, Puerto Rico is a Commonwealth, electing its own chief executive and legislature, levying its own income, excise and other taxes, and sharing with the United States citizenship, defense, free trade and currency. A strong minority of the electorate favors becoming a State of the Union, while a much smaller but highly vocal minority favors complete and separate independence. The present Governor, Rafael Hernandez-Colon, is a strong advocate of Commonwealth with maximum autonomy consistent with continued common citizenship, defense, commerce and currency.

Puerto Rico has a land area of 3400 square miles, about three times the size of Rhode Island, but with 3.1 million people it has about three times Rhode Island's population, and it is totally dependent on imported petroleum. The rising costs of oil and the recent economic problem in the United States have combined to reduce the Commonwealth's real income and to drive the unemployment rate to over twenty percent, leaving many with college educations out of work.

### The University of Puerto Rico

Education is of high priority in the Commonwealth. About 27 percent of the budget goes directly to support education. Another 4-6 percent provides indirect support. With a population of just over three million, and a per capita income lower than any mainland state, Puerto Rico has more than 100,000 students enrolled in its private and public colleges and universities. The UPR, one of the largest universities in the Western Hemisphere, has 52,000 students, mostly Puerto Rican. More than 20,000 of them receive some direct financial aid. The University is a source of pride and a center for development in the Commonwealth.

UPR is a land grant institution. Its funds come from tuition, relatively low by comparison (\$80 per semester) to the mainland, and from legislative allocations. UPR gets a flat nine percent of the Commonwealth's income as basic funding, with special allotments added. In recent years, with the economic downturn, Commonwealth real income has declined and the University's budgetary base has been squeezed.

The University is guided by a Council on Higher Education which is appointed by the Governor and which, in turn, appoints the UPR President. The current President is Arturo Morales-Carrion. All significant appointments of chancellors, deans of faculties, and the Director of PRNC - must be approved by the Council. In recent years, there has been a frequent turnover in many of the major positions at UPR. There is a conscious effort to appoint qualified Puerto Ricans to major posts.

The University participates in a number of U.S. educational grants and research programs. Under a new policy, each contract, grant, or proposal for a grant or contract, must be in harmony with Council policy and be approved by the President of the University. Similarly, ERDA's arrangements with the University for the management of PRNC, must have the approval of the President and the Council of Higher Education.

#### Office of Petroleum Fuels Affairs

The office was created by the Legislature of the Commonwealth of Puerto Rico in July, 1973 to formulate a dynamic energy policy for the Commonwealth based upon empirical information which has been well quantified and qualified for analytical purposes. Among the fundamental objectives are the following: (i) To assure the availability of required energy supplies from secured sources; (ii) To obtain for our society the lowest possible cost for energy; minimizing the impact of energy costs on economic welfare and progress; (iii) To minimize the unfavorable effects which are induced by marketing problems and international energy policies; (iv) To establish a well correlated relationship between environmental matters, generation and utilization of energy; (v) To minimize inequities which may arise as a consequence of economic or regional factors in terms of costs and availability of energy sources; (vi) To promote efficiency and optimum use of energy in all energy operations and uses; (vii) To carry on scientific research in reference to alternate energy sources, orienting such efforts for the achievement of a regional energy sufficiency.

The Division of Scientific and Technological Research is an energy research and service unit which is an integral part of the Office of Petroleum Fuels Affairs.

The principal fields of interest include petroleum refining, energy utilization, fuel combustion, chemical composition, mathematical modelling of atmospheric pollutants, and sulfur chemistry. The Office develops its applied research and service programs in a combined effort, when necessary, with industry, government and university scientific and technical personnel.

UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
INSTITUTE OF TROPICAL FORESTRY  
P. O. BOX 577  
RIO PIEDRAS, PUERTO RICO

IN REPLY REFER TO:

4000

March 17, 1965

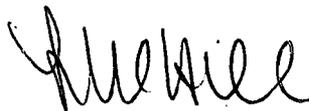
Mr. Floyd Trent  
Area Manager  
Atomic Energy Commission  
P. O. Box BB  
Hato Rey, P. R.

Dear Mr. Trent:

We have discussed a proposed change in our Memorandum of Understanding covering the main forest ecology project with Dr. Odum and Mr. Walker. The change, attached hereto as Amendment No. 1 of Supplement No. 2, deletes a 200-foot strip of land along PR Highway 186, but adds land between the El Verde field station and the forest area in which the radiation project is located. The addition will provide a right of way from the field station to the main study area through which electrical cables and forest workers pass and wherein some experiments are performed. We understand that experiments are performed on, at, or immediately adjacent to the main trail servicing the main study area.

The change reduces the total area covered by the agreement from 155 acres to 140 acres. If you agree with the amendment, please sign in the space provided and return the original and one copy to us.

Sincerely yours,



L. W. HILL, Project Leader  
Applied Tropical Forestry

Enclosures



PUERTO RICO NUCLEAR CENTER

OPERATED BY

UNIVERSITY OF PUERTO RICO

FOR

U. S. ATOMIC ENERGY COMMISSION

CABLE ADDRESS:

NUCLEAR, \_\_\_\_\_

ADDRESS REPLY TO:

Bio-Medical Building  
Caparra Heights Station  
San Juan, Puerto Rico

February 15, 1965

Dr. John C. Bugher  
Director,  
Puerto Rico Nuclear Center  
Rio Piedras, Puerto Rico

Dear Dr. Bugher:

Following your referral, we have in hand Mr. Trent's January 22 letter to consider the change in land on the inter-agency agreement at El Verde between AEC and the U. S. Department of Agriculture. There are two recommendations we wish to make:

1. The release of the 200 foot strip along the highway back to the Department of Agriculture will apparently not cause problems to our program and we can recommend accepting their request.
2. The present agreement says nothing about the area of land around the El Verde Buildings and does not provide for our use of land between the El Verde Buildings and the River. Thus at present we have no easement for our main trail, for the line of electrical cables, or for experiments done along the main trail. These areas are crucial to our program. Since the agreement is to be amended anyway, may we ask for exchange of the following land. I have already discussed this with Mr. Larry Hill, who saw no problem and said to forward the request. The land may be described as follows:

Land around the buildings of the El Verde station bounded by a line 100 feet distant from the outermost corners of the El Verde Buildings; Land bounded by a line 100 feet north of and parallel to the trail-traverse surveyed by registered engineer Jenaro Negrón in 1963 and copied on map by Peter Murphy of October 1963, extending from the El Verde station to the Sonadora River to the east; Extending south southeast along the Sonadora River bank to the transect line; Land on the south side of the above mentioned survey transect and bounded by a straight line beginning at the south corner of the El Verde Garage Building and extending in an east-southeasterly direction to the bank of the Sonadora River at a point 100 feet south of the point where the Negrón Transect line intersects the river.

The area is approximately drawn on the enclosed map.

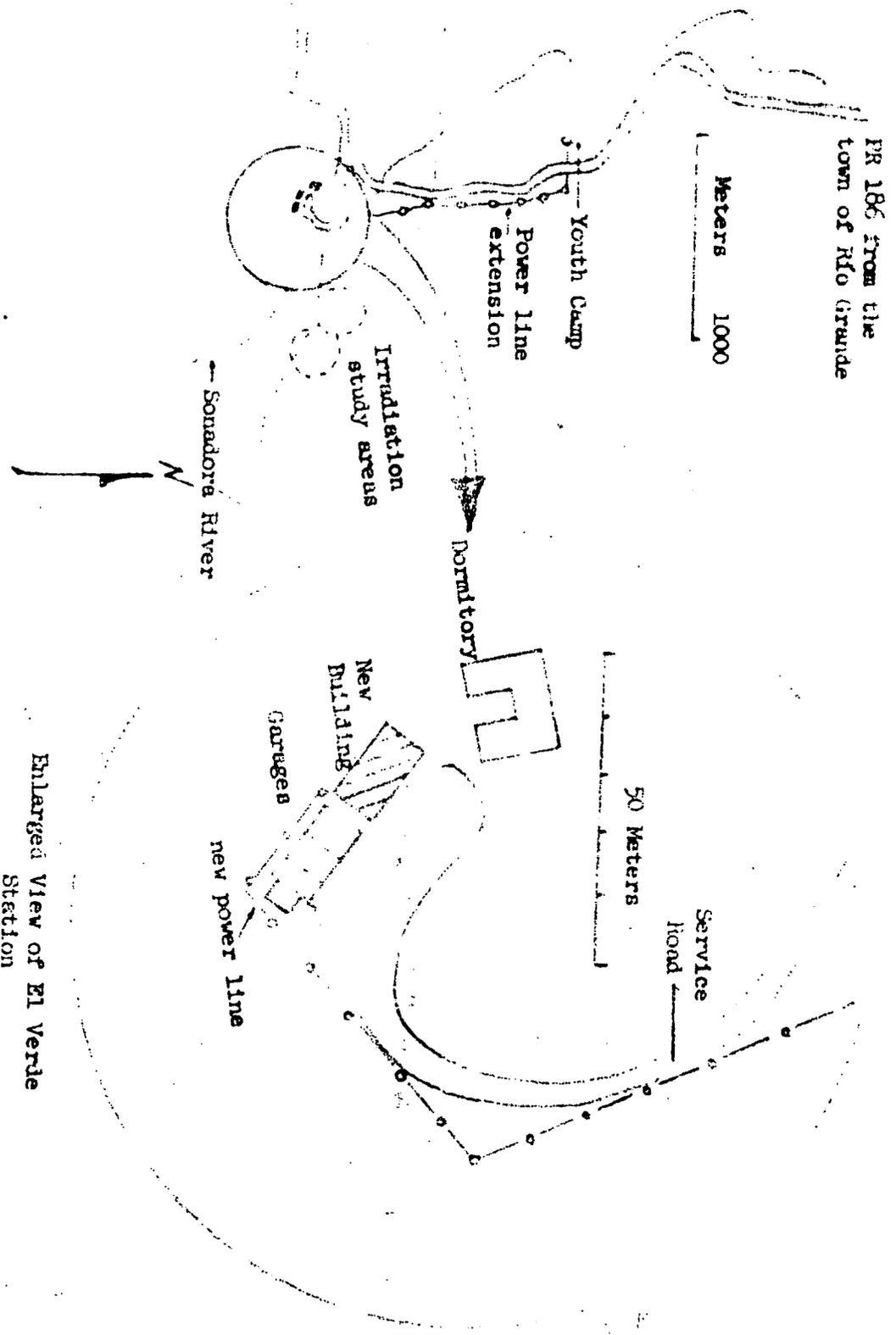
Sincerely yours,



Howard T. Odum

HTO/ajc

Figure 1. Facility Layout at the El Verde Field Station.



Enlarged View of El Verde Station

10

MASTER MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE ATOMIC ENERGY COMMISSION  
AND  
THE FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE

THIS MEMORANDUM OF UNDERSTANDING, made and entered into this 15th day of September, one thousand nine hundred and sixty-four, by and between the Atomic Energy Commission, hereinafter referred to as the "Commission" and the Forest Service, United States Department of Agriculture, through the Director of the Institute of Tropical Forestry, hereinafter referred to as the "Forest Service", witnesseth:

WHEREAS, the Commission, through its Puerto Rico Nuclear Center, operated by the University of Puerto Rico under Contract No. AT-(40-1)-1833, wishes to conduct detailed ecological studies in Puerto Rico of the effects of gamma radiation upon tropical forests; and

WHEREAS, the Forest Service is responsible for and conducts a program of forest research in Puerto Rico; and

WHEREAS, distinct advantages will accrue by correlating and coordinating respective programs of both parties;

NOW, THEREFORE, in consideration of the above premises and in the interest of mutual advantage in attainment of common objectives, the parties hereto desire to cooperate and mutually agree as follows:

1. To consider jointly at such places and at such intervals as may be currently agreed upon by both parties hereto a program of joint research toward common objectives.
2. To develop specific agreements and plans of study considered by both parties to have mutual interest.
3. To develop and facilitate plans for publication and dissemination of forest research results obtained hereunder by either party hereto, which in the judgment of both parties can be handled most advantageously by joint effort.
4. To enter into working arrangements as occasion demands for the use of experimental forests, laboratories, and

other facilities owned or operated by either party hereto for research hereunder.

This cooperative work is authorized by the McSweeney-McNary Forest Research Act of May 22, 1928 (45 Stat. 699; 16 U.S.C. 581-581i); the Atomic Energy Act of 1954 (68 Stat. 919; 42 U.S.C. 2011-2281); and Sec. 601 of the Economy Act of June 30, 1932, 31 U.S.C. 686-686b. Work under this Agreement will be determined by specific working agreements entered into under authority of this instrument.

This Memorandum of Understanding will remain in force indefinitely unless terminated by mutual agreement of the parties.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding as of the date first above written.

UNITED STATES ATOMIC ENERGY COMMISSION

By *E. M. Wender*

Date *9/14/64*

Title MANAGER  
GENERAL OPERATIONS

FOREST SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE

By *Frank H. Wadsworth*

Date *9/15/64*

Title Director  
Institute of Tropical Forestry

UNITED STATES GOVERNMENT

# Memorandum

TO : FILES

DATE: January 21, 1964

FROM : F. P. Trent, Manager, P. R. Area

SUBJECT: MEMO OF UNDERSTANDING BETWEEN PRNC AND FOREST SERVICE

FPT:EC

Following receipt of Manager's memo of October 2, 1963, I met with Dr. Wadsworth, Director of the Institute of Tropical Forestry, to discuss the Memorandum of Agreement received with the Manager's memorandum. Dr. Wadsworth had some reservations about the draft presented to him during this discussion. I believe his reservations stemmed largely from the fact that he may not have been authorized by the Forest Service to execute such an agreement, particularly because it was drafted for the signature of a representative of the U. S. Department of Agriculture. He seemed to feel that it will have to be signed at departmental level. I left the draft with him with the understanding that he will consider it and get in touch with me later.

In late December, Dr. Wadsworth advised me that he had re-drafted the proposed memorandum of understanding and intended to send copies of the draft to his Headquarters for review and approval. He indicated that he propose to have a basic or master memorandum of understanding together with a supplement which he called a cooperative agreement to the master memo, a third document which he called a special use permit to cover the actual use of the land area involved. I suggested that Wadsworth furnish us a copy of his draft concurrently with it being forwarded to his Headquarters for consideration in order that we could determine if it will be acceptable to AEC. Subsequently, he handed me a draft copy of the master memo of understanding and a draft of the cooperative agreement Supplement No. 1. I forwarded copies of the documents both to Dr. Bugher's office for PRNC comment and to Herb Larsen at ORO Legal. I requested Herb to consult with Dr. Roth and advise me whether or not Wadsworth's draft would be acceptable to the Commission if approved by Forest Service Headquarters.

Herb re-drafted the agreements and returned them to me with his comments by memo of Dec 31. In the meanwhile I learned that Dr. Wadsworth was delaying forwarding the documents to his Headquarters pending receipt of our informal comments. Dr. Odum expressed concern over two or three points of the memo as stated in his letter to Dr. Bugher of Dec 23. He was concerned over the possibility that the Forest Service may wish to retain the veto power over the administration and research; control of publication; and maintain control over the project through the 60-day eviction clause.

January 21, 1964

On January 15 Dr. Bugher and I met with Dr. Wadsworth to review with him the new version prepared by Mr. Larsen and forwarded by his December 31 memo. It became quite apparent that the fears expressed by Odum were not well founded. Wadsworth indicated that the Forest Service had no intention of interfering with the AEC-PRNC administration of the research project and it does not intend to interfere with the publication of data resulting from the projects. The Service is concerned and wants to receive due credit for its cooperation in any publication of data on the tropical rain forest. We reviewed the draft, as prepared by Larsen, and ~~considerable~~ <sup>several</sup> changes were made as indicated on Attachment 1 hereto.

It is my understanding that Dr. Wadsworth will submit copies of this draft to his Headquarters and will request authorization for the execution of the document.

Attachment

JOF.  
1/21/64.

UNITED STATES GOVERNMENT

# Memorandum

TO : F. P. Trent, Area Manager  
Puerto Rico Area Office

DATE: December 31, 1963

FROM : H. A. Larsen, Office of Chief Counsel  
Oak Ridge Operations

SUBJECT: AGREEMENT WITH FOREST SERVICE

MC:HL

There is attached a revised draft of both the master agreement and the supplement. The following comments cover among other things the reasons for changes in the draft.

## Master Memorandum of Understanding

1. A very slight grammatical change made in the first "Whereas".
2. Reference to the Atomic Energy Act has been added in the recitation of underlying statutes.
3. Clauses on officials not to benefit, convict labor, and antidiscrimination have been deleted. These are inappropriate in an interagency agreement, which is, after all, not a contract. If the Forest Service is especially concerned about these, it might be of some use to include a statement in the agreement that the University of Puerto Rico under its contract with the Commission is required to conduct all work consistent with the clauses required in Government contracts including those deleted. It would seem preferable, however, if this could be handled by convincing them that this is so without a special representation in the agreement. In this connection, I note that Contract AT-(40-1)-1833 does not contain a convict labor provision. It would be in order, if there is any need to cover this point, to issue a direction or instruction pursuant to Section 2 of Article I, that persons undergoing sentence of imprisonment at hard labor shall not be used in the performance of this contract work.

## Cooperative Agreement, Supplement No. 1

1. A, 2 has been revised to omit the statement of a precise number of acres, since the designation of the area might not produce this exact number. The redraft also leaves blank the number of years committed or tentatively committed. This may

be a touchy point for both sides and an alternate such as the following might be worth thinking about:

Such permit will be for an initial period of 1 year, and will contain permission for the erection of necessary towers, fences, buildings and other structures. It is recognized, however, that the program as contemplated may require several years to produce meaningful data and it is the contemplation of both the Forest Service and the Commission that, subject to program and budgetary requirements, extension of the permits will be requested and granted.

2. In A, 4 the dollar or percentage limitation on contribution has been omitted as not only unnecessary but also confusing. Without this, each agency will be the judge of its own financial support.
3. A, 5 has been changed to more clearly reflect the prospect of future agreements as to costs in subsequent fiscal years.
4. A, 6 has been revised to keep the idea of coverage of the project only, but to avoid any indication that the AEC's health and safety responsibility is to be subject to the program description.
5. B, 2. The reference to the maintenance of Forest Service facilities has been omitted. It does not appear that such facilities are actually to be used, and if they were, it would seem that any requirements for maintenance should be spelled out in the permit or in the year to year agreement on costs. As it is, a combination of A,3 and B,2 might have the AEC keeping up Forest Service facilities which we didn't really need.
6. C, 1. The reference to rights of individuals doing the work is omitted since any rights involved are those of the agencies and not the individuals.
7. C, 2. The power to grant academic recognition to research results belongs to the institution being asked to grant the degree. This would seem open in any event, and to note it in

this agreement seems to have only the effect of whether we are conferring a fellowship of some kind without having it processed ~~as~~ required by the fellowship rider of our appropriation acts. I believe this section should be omitted entirely.

8. C, 5. This antideficiency act language is probably not needed at all, but certainly does no harm.



H. A. Larsen

Enclosure:  
Revised Draft (6)

UNITED STATES GOVERNMENT

# Memorandum

TO : Floyd P. Trent, Area Manager  
Puerto Rico Area Office

DATE: OCT 2 1963

FROM : S. R. Sapirie, Manager  
Oak Ridge Operations

SUBJECT: MEMO OF UNDERSTANDING BETWEEN PRNC AND FOREST SERVICE,  
USDA

MC:ERR

Reference is made to your memorandum of July 26, 1963, subject as above, in which you asked for our comments on the proposed joint project of PRNC and the Forest Service, USDA. The normal method used for accomplishing a project such as is outlined in Dr. Bugher's proposed agreement is for the two Government agencies themselves to execute an interagency agreement rather than having the contractor enter into an agreement with the other interested agency. The utilization of an interagency agreement rather than a memorandum of understanding between PRNC and USDA will in no way affect the research to be undertaken. Please find enclosed a draft copy of a proposed interagency agreement between AEC and USDA. If after contact with representatives of USDA it is found to be acceptable without substantial change, you are hereby authorized to execute it on behalf of the AEC.

*S. R. Sapirie*  
S. R. Sapirie

Enclosure:  
Draft Agreement  
(in dup.)

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April 9, 1963

Mr. Jaime Benítez, Chancellor  
University of Puerto Rico  
Rio Piedras, P. R.

Dear Chancellor Benítez:

I refer to the Memorandum of Understanding between the University of Puerto Rico and the Forest Service, dated February 1, 1957, and providing for coordination and cooperation between our two agencies in program of mutual interest.

We have recently been approached by Dr. Bugher, Director of the P. R. Nuclear Center of the University with the request for the use of an area of forest within the Luquillo Experimental Forest and office space within the basement of our building, located on the grounds of the Agricultural Experiment Station. This request is in relation to the project "Terrestrial Ecology Part I, El Yunque Rain Forest" in which we have a joint interest. Under the terms of the Memorandum of Understanding, we hope to be able to make these facilities available to the Nuclear Center. Unless you see some objection, we plan to go ahead with this proposal.

Sincerely yours,



FRANK H. WADSWORTH  
Director

P.S. to Dr. Bugher:

Suggest you expedite this clearance personally.



Corporation  
Univ. of P.R.

MEMORANDUM OF UNDERSTANDING

4000-1

MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
UNIVERSITY OF PUERTO RICO  
AND THE  
FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE

THIS MEMORANDUM OF UNDERSTANDING, entered into this first day of February, 1967 by and between the University of Puerto Rico, hereinafter referred to as the "University", and the Forest Service, United States Department of Agriculture, through the Tropical Forest Research Center, hereinafter referred to as the "Forest Service," WITNESSETH:

WHEREAS the University, with its affiliated College of Agriculture and Mechanic Arts, Agricultural Experiment Station, and Agricultural Extension Service, is organized and maintained in the Commonwealth of Puerto Rico to conduct a program of education and research designed to benefit all people of the Commonwealth, including owners and operators of forest lands and dependent industries; and,

WHEREAS the Forest Service as an agency of the Federal Government is responsible for and conducts a program of forest research of use and value to owners and operators of forest land and dependent industries in Puerto Rico; and,

WHEREAS distinct advantages will accrue by correlating and coordinating the respective programs of both parties,

NOW, THEREFORE, in consideration of the above premises and in the interest of mutual advantage in attainment of common objectives, the parties hereto desire to cooperate and mutually agree as follows:

1. To consider jointly, at such places and at such intervals as may be currently agreed upon by both parties hereto, a general program of forest research within the Commonwealth of Puerto Rico.

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2. To develop specific working plans of study for individual experiments considered by both parties hereto to have mutual interest.
3. To develop and facilitate plans for publication and dissemination of forest research results obtained by either party hereto which in the judgment of both parties can be handled most advantageously by joint effort.
4. To enter into working arrangements as may be agreed upon by both parties hereto for special work in forestry research.

The University agrees:

1. To continue to make available to the Forest Service a site for its headquarters in accordance with Lease Contract No. 32 of November 28, 1941.
2. Within the limits of available capacity, to make laboratory, library, and other facilities available to Forest Service personnel to be used in the conduct of their research, in accordance with detailed plans to be agreed upon as occasion demands.

The Forest Service agrees:

1. To make the library, laboratories, and experimental forests owned and operated by the Forest Service available to the University for education, research, and demonstration, under detailed plans agreed upon as occasion demands.
2. To make available to the University on a maintenance cost-sharing basis any space not needed by the Forest Service within its buildings on the headquarters site leased from the University.

The legal authority of work under this agreement and for any specific working arrangements developed under its authority is governed by the terms

of the McGraw-Hill Forest Research Act of May 22, 1928 (16 U.S.C. 581a-1) A

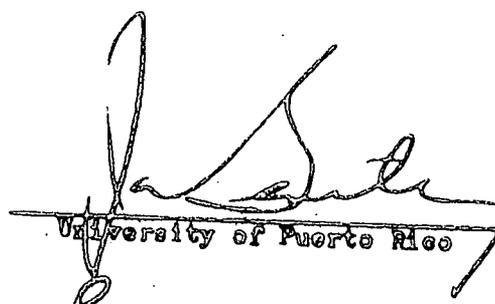
and appropriations for salaries and expenses of the United States Department of Agriculture and the Acts governing the activities of the Agricultural Experiment Station of the University of Puerto Rico:

Limitations of expenditures under this memorandum of understanding will be determined by specific working agreements entered into under authority of this instrument.

No member of, or delegate to, Congress, or resident Commissioner, shall be admitted to any share or part of this memorandum of understanding or to any benefit to arise therefrom, in accordance with U. S. Code, Title 41, Section 22.

Either party may terminate this memorandum of understanding by providing 60 days' written notice. Unless terminated by written notice, this memorandum will remain in force indefinitely.

In witness whereof, the parties hereto have executed this memorandum as of date first above written.

  
Chancellor  
University of Puerto Rico

  
Frank H. Wadsworth, Leader  
Tropical Forest Research Center  
Forest Service, U. S. Department  
of Agriculture

