

SUPPLEMENTAL AGREEMENT  
BETWEEN  
VIRGINIA POLYTECHNIC INSTITUTE  
AND  
THE U. S. NUCLEAR REGULATORY COMMISSION

THIS SUPPLEMENTAL AGREEMENT, effective the 1st day of July, 1981, by and between the UNITED STATES OF AMERICA (hereinafter referred to as the "Government"), as represented by the UNITED STATES NUCLEAR REGULATORY COMMISSION (hereinafter referred to as the "Commission"), and VIRGINIA POLYTECHNIC INSTITUTE (hereinafter referred to as the "Contractor"),

WITNESSETH THAT:

WHEREAS, the parties desire to modify Contract No. NRC-04-77-134 as hereinafter provided, and this supplemental agreement is authorized by law, including the Energy Reorganization Act of 1974, as amended, and the Atomic Energy Act of 1954, as amended.

NOW, THEREFORE, said contract is hereby modified as follows:

1. Appendix A, attached to this supplemental agreement and made a part hereof, provides for the research to be performed by the Contractor during the contract period specified therein.
2. In Article II - The Period of Performance, the date "June 30, 1982" is substituted for the date "June 30, 1981".
3. In Article III - Consideration, the sum "\$406,696.00" is substituted for the sum "\$301,633.00".

IN WITNESS WHEREOF, the parties have executed this document.

UNITED STATES OF AMERICA

BY: [Signature]  
Kellogg V. Morton, Chief  
Research Contracts Branch  
Division of Contracts  
U. S. Nuclear Regulatory Commission

BY: Virginia Polytechnic Institute and  
State University [Signature]  
(title) A. H. Krebs, Vice President for Admin,

I, Margie W. Thomas, certify that I am the  
(attester)

Clerk to the Board of Visitors of the Contractor named under this  
(title)

document; that A. H. Krebs who signed this  
(signatory)

document on behalf of said Contractor was then Vice President for Administration  
of said Contractor; that this document was duly signed for and on behalf of  
said Contractor by authority of its governing body and is within the scope  
of its legal powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said  
Contractor.

[Signature]  
Margie W. Thomas, Clerk to the Board  
of Visitors

(SEAL)

CONTRACTOR: VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

APPENDIX A

For the Contract period July 1, 1981 through June 30, 1982

Article A-I RESEARCH TO BE PERFORMED BY CONTRACTOR

- (a) The unclassified scope of work under this contract entitled "Central Virginia Regional Seismic Network" is as follows:

The Contractor will:

1. Install two additional seismic stations (short-period vertical seismometers, radio telemetry) in the Giles County subnetwork. These stations would be at each end (northeast and southwest) of the Giles County zone.
2. Monitor seismic activity. Determine hypocenters and focal mechanisms, insofar as possible, for recorded seismic events.
3. Integrate seismic and geologic results to develop, insofar as possible, a complete geologic understanding of the seismic regime.
4. Publish a quarterly bulletin listing location, depth, magnitude of any regional event (Southeast U.S.).
5. Notify the NRC of any interesting regional earthquake as quickly as practical.

- (b) The Principal Investigator expects to devote the following approximate amount(s) of time to the contract work:

Prof. G. A. Bollinger - 15% of his time for 12 months.

ARTICLE A-II WAYS AND MEANS OF PERFORMANCE

- (a) Items for which support will be provided as indicated in A-III, below

(1) Salaries and Wages	\$ 36,575.00
(2) Equipment to be purchased or fabricated by the Contractor	14,000.00
Over \$1,000.00	\$
Two (2) Radio Telemetry Stations - \$14,000.00 (Amplifiers, vco's, seismometers, antennas, transmitters, receivers, solar panels, power supplies, discriminators, batteries, field and lab housings, spares).	

- (3) Travel \$ 3,000.00  
    (i) Domestic \$ \_\_\_\_\_  
    (ii) Foreign \$ -0- \_\_\_\_\_
- (4) Other direct costs
- (5) Indirect costs based on a predetermined rate of 24 percent applicable to total direct costs less individual items of equipment in excess of \$500.00, Subcontracts and Subgrants in excess of \$25,000.00, alterations and renovations, stipends, tuition payments, and rental costs of off campus facilities.

- (b) Items, if any, significant to the performance of this contract, but excluded from computation of Support Cost and from consideration in proportioning costs:

None

- (c) Time or effort of Principal Investigator(s) including indirect costs and fringe benefits contributed by Contractor but excluded from computation of Support Cost and from consideration in proportioning costs:

Prof. G. A. Bollinger - 15% of his time for 12 months.

#### Article A-III

The total estimated cost of items under A-II(a) above for the contract period stated in this Appendix A is \$105,063.00 ; the Commission will pay 100 percent of the actual costs of these items incurred during the contract period stated in this Appendix A, subject to the provisions of Article III and Article B-XXVIII. The estimated NRC Support Cost for the contract period stated in this Appendix A is \$105,063.00 .

The estimated NRC Support Cost is funded as follows:

- (a) Estimated unexpended balance from prior period(s) \$ -0- \_\_\_\_\_
- (b) New funds for the current period \$ 105,063.00 \_\_\_\_\_
- (c) The new funds being added in A-III(b) constitute the basis for advance payments provided under Article B-X.