Modification No. 3 Supplemental Agreement to Contract No. NRC-04-77-164

# SUPPLEMENTAL AGREEMENT BETWEEN INDIANA UNIVERSITY

AND
THE U. S. NUCLEAR REGULATORY COMMISSION

THIS SUPPLEMENTAL AGREEMENT, effective the 1st day of September, 1980, 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 INDIANA UNIVERSITY

(hereinafter referred to as the "Contractor"),

#### WITNESSETH THAT:

WHEREAS, the parties desire to modify Contract No. NRC-04-77-164 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:

- 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.
- In Article II The Period of Performance, the date " August 31, 1981 'is substituted for the date " August 31, 1980 ".
- In Article III Consideration, the sum "\$ 124,021.00" is substituted for the sum "\$83,730.00".

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IN WITNESS WHEREOF, the parties have executed this document.

Kellogg V. Forton, Chief Research Contracts Branch  INDIANA UNIVERSITY  BY:  J. D. Mulholland, Treasurer  (title)  I,	2
BY:  J. D. Mulholland, Treasurer  (title)  I,	2
J. D. Mulholland, Treasurer  (title)  I,	•
Secretary of the Contractor named under the (title)  document; that J. D. Mulholland who signed this (signatory)  document on behalf of said Contractor was then Treasurer  of said Contractor; that this document was duly signed for and on behalf of	
document; that	
document; that	nis
(signatory)  document on behalf of said Contractor was then	
of said Contractor; that this document was duly signed for and on behalf of	
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f its legal powers.	
N WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said	
Contractor.	
Mataricle	
(SEAL)	

CONTRACTOR: INDIANA UNIVERSITY

#### APPENDIX A

For the Contract period September 1, 1980 through August 31, 1981

### Article A-I RESEARCH TO BE PERFORMED BY CONTRACTOR

- (a) The unclassified scope of work under this contract entitled, "A Study of Indiana Fault Locations, Displacements, Attitudes and Ages In Southwestern Indiana" is a follows:
  - Complete field work and subsurface mapping on the northwestern extent of the Mt. Carmel Fault Zone as it passes beneath glacial drift.
  - Drill at least four holes with the Indiana Geological Survey -Failing 1500 drill rig to determine the extent and amount of displacement of the Mt. Carmel faulting.
  - Evaluate and integrate seismic data on hand with new seismic data to resolve extent and location of faulting in southwestern Indiana.
  - 4. Evaluate and interpret the tectonic relationship of the Wabash Valley Fault System with the nearly perpendicular-trending faulting of the Mt. Carmel Fault Zone.
  - 5. Prepare a final report on the "Study of Indiana Fault Locations, Displacements, Attitudes, and Ages in Southwestern Indiana" conducted by the Indiana Geological Survey for the past four years. The report will include detailed structural mapping, tectonic interpretation, and formal descriptions of the faulting in southwestern Indiana.
- (b) The Principal Investigator expects to devote the following approximate amount(s) of time to the contract work:
  - D. M. Sullivan and C. H. Ault Supervision as needed (approximately 15% of their time during 12 months)

## ARTICLE A-II WAYS AND MEANS OF PERFORMANCE

(a)	Items	for	which	support	will	be	provided	as	indicated	in	A-III,	below
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(1)	Salaries and Wages	\$ 19,700.00
(2)	Fourtment to be purchased or	

(2) Equipment to be purchased or fabricated by the Contractor

\$ -0-

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(3) Travel
(i) Domestic

\$ 3,500.00

(ii) Foreign

- (4) Other direct costs including fringe benefits and retirement.
- (5) Indirect costs based on a predetermined rate of 29.3 percent applicable to total direct costs less equipment, subcontractors in excess of \$2,500, alterations and innovations, hospitalization and other fees related to patient care.
- (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:

  D. M. Sullivan and C. H. Ault: Supervision as needed (approximately 15% of their time

Article A-III

The total estimated cost of items under A-II(a) above for the contract period stated in this Appendix A is \$40,291.00; 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 \$40,291.00.

during 12 months)

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

\$ 40,291.00

(c) The new funds being added in A-III(b) constitute the basis for advance payments provided under Article B-X.