



UNITED STATES
ATOMIC ENERGY COMMISSION

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

718398

AREA CODE 615
TELEPHONE 483-8611

OCT 12 1970

1323

10/13/70
10/13/70

afbs
10/15/70
[Signature]

W. H. Henderson, Finance Division

CONTRACT NO. AT-(40-1)-3298 WITH THE UNIVERSITY OF FLORIDA

The work under Contract No. AT-(40-1)-3298 with the University of Florida has been completed and an acceptable final report has been submitted. Therefore, the obligations of the University are concluded and the contract should be closed out. Enclosed is a voucher (\$2,989.40) for the remaining 10 percent of the Support Ceiling under the contract.

ORIGINAL SIGNED BY

Jm

Herman M. Roth, Director
Laboratory and University Division

OLE:LM

Enclosure:
Voucher

CC: Ralph Elson
D. S. Zachry

REPOSITORY Oak Ridge Operations
Records Holding Area
COLLECTION Doc. 1944-94
BOX No. A-45-3 Chief Counsel
Contract No. AT-(40-1)-3298
FOLDER Univ. of Florida

DISCONTINUED

130

1127114

Modification 4 to Contract AT-(40-1)-3298

University of Florida

Distributed: November 19, 1968

Distribution

Contract Files (2) (1 sgd - 1 cnfd)

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Contractor (1 sgd)

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AC:ARB

November 19, 1968

University of Florida
College of Engineering
Engineering and Industrial
Experiment Station
Gainesville, Florida 32601

Attention: Dr. Robert E. Uhrig, Director

Subject: MODIFICATION NO. 4 TO CONTRACT NO. AT-(40-1)-3298

Gentlemen:

Enclosed, for your retention, is one fully signed copy of the
subject modification.

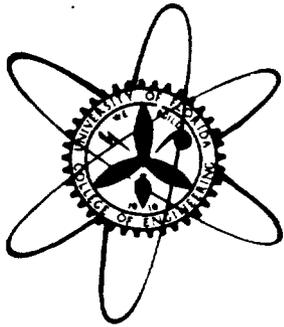
Very truly yours,

^{Signed by}
Ralph Elson, Director
Contract Division
Oak Ridge Operations

NFF
Enclosure:
Mod. 4

OFFICE ▶	PR&CF Branch Contract Div.	Director Contract Div.			
SURNAME ▶	<i>Elson</i> R Elson	<i>RE</i> R Elson			
DATE ▶	11-19-68	11-19-68			

1127416



COLLEGE
OF
ENGINEERING

UNIVERSITY OF FLORIDA

GAINESVILLE, FLORIDA 32601

ENGINEERING AND INDUSTRIAL EXPERIMENT STATION
PHONE 904 392-0941

November 15, 1968

U. S. Atomic Energy Commission
Oak Ridge Operations
P. O. Box E
Oak Ridge, Tennessee 37830

Reference: AC:ARB

Attention: Mr. Ralph Elson, Director
Contract Division

Subject: Modification No. 4 to
Contract No. AT-(40-1)-3298

Gentlemen:

As requested in your letter of November 5, 1968, enclosed are two copies of the above-numbered modification which has been approved on our behalf. It is requested that one fully executed copy be returned to the attention of the undersigned.

Very truly yours,

Robert E. Uhrig
Robert E. Uhrig, Director

Enclosure *ok*

461...

1127417

AC:ARB

November 5, 1968

University of Florida
College of Engineering
Engineering and Industrial
Experiment Station
Gainesville, Florida 32601

Attention: Dr. R. E. Uhrig, Director

Subject: MODIFICATION NO. 4 TO CONTRACT NO. AT-(40-1)-3298

Gentlemen:

Enclosed, in triplicate, is proposed Modification No. 4 to the subject contract which provides for extending the period for performance to December 31, 1968, without additional funds.

If the modification, as submitted, is satisfactory, will you have two of the enclosed copies signed by the proper official of the University and return them to this office. The remaining copy is for your retention. After signature and dating on behalf of the Commission, one fully signed copy of the modification will be returned for your files.

Very truly yours,

Original signed by
Ralph Elson

Ralph Elson, Director
Contract Division
Oak Ridge Operations

Enclosure: *nff*
Modification 4 (in trip.)

OK
cc: C. E. Sheup

OFFICE ▶	FRS&CF Branch Contract Div.	Director Contract Div.			
SURNAME ▶	<i>Shoup</i> ARBROWN	<i>RE</i> REKRON			
DATE ▶	11-5-68	11-5-68			

112718

Modification 3, dated September 22, 1967, to Contract AT-(40-1)-3298

University of Florida

Distributed: September 25, 1967

Distribution

Contract Files (2) (1 sgd - 1 cafd)
Finance
Laboratory & University Division (2)
Washington (B&M) (2)
Contractor (1 sgd)
Extra Copies

ACC:ARB

September 25, 1967

University of Florida
College of Engineering
Engineering and Industrial Experiment Station
Gainesville, Florida 32608

Attention: Dr. H. E. Foraman, Director

Subject: MODIFICATION NO. 3 TO CONTRACT NO. AT-(40-1)-3296

Gentlemen:

Enclosed, for your retention, is one fully signed copy of the
subject modification.

Very truly yours,

Original signed by
Ralph Elson

Ralph Elson, Director
Contract Division
Oak Ridge Operations

Enclosure:
Mod. # 3

OAK RIDGE OPERATIONS

SEP 25 1967

1127420

OFFICE ▶	Contract Div.		Director Contract Div.			
SURNAME ▶	<i>RBrown</i> RBrown		<i>RElson</i> RElson			
DATE ▶	9-25-67		9-25-67			



COLLEGE
OF
ENGINEERING

UNIVERSITY OF FLORIDA

GAINESVILLE, FLORIDA ~~3260~~ 32603
AREA CODE 904 PHONE 376-3261

ENGINEERING AND INDUSTRIAL EXPERIMENT STATION
EXT. 2341

September 19, 1967

U. S. Atomic Energy Commission
Oak Ridge Operations
P. O. Box E
Oak Ridge, Tennessee 37830

Reference: ACC:ARB

Subject: MODIFICATION NO. 3 TO CONTRACT NO. AT-(40-1)-3298

Gentlemen:

Enclosed are two copies of the above-numbered modification which has been approved on our behalf. It is requested that one fully executed copy be returned to the attention of the undersigned.

Very truly yours,


M. E. Forsman, Director

Enclosure *ok*

1127421

#2108

AGS:AMB

September 11, 1967

University of Florida
College of Engineering
Engineering and Industrial
Experiment Station
Gainesville, Florida 32601

Attention: Dr. H. E. Furman

Subject: MODIFICATION NO. 3 TO CONTRACT NO. AT-(49-1)-3298

Gentlemen:

Enclosed, in triplicate, is proposed Modification No. 3 to the subject contract which provides for extending the period for performance to September 30, 1968, without additional funds.

If the modification, as submitted, is satisfactory, will you have two of the enclosed copies signed by the proper official of the University and return them to this office. The remaining copy is for your retention. After signature and dating on behalf of the Commission, one fully signed copy of the modification will be returned for your files.

Very truly yours,

Original signed by
A. E. Johnston, Acting

Ralph Eison, Director
Contract Division
Oak Ridge Operations

NFT
Enclosure:

Modification 3 (in triplicate) *WIDCE OBEVVIOM2*
02 VEC

cc: Div. of Biology & Medicine, *AGS Edgtr*
C. S. Shoop *266 11 24 11 11*

0/9

RECEIVED

OFFICE ▶	Contract Div.	Actg Director Contract Div.			
SURNAME ▶	<i>Brown</i> ARBrown	<i>Johnston</i> A E Johnston			
DATE ▶	9-11-67	9-11-67			

1127422

Modification 2, dated October 28, 1966 and effective as of
October 1, 1966, to Contract AT-(40-1)-3298

University of Florida

Distributed: October 31, 1966

Distribution

Contract Files (2) (1 sgd - 1 cnfd)

Finance

Research & Development (2)

Washington (B&M) (2)

Contractor (1 sgd)

Extra Copies

ACC:ARB

Oak Ridge, Tennessee 37830
October 31, 1966

University of Florida
College of Engineering
Engineering and Industrial
Experiment Station
Gainesville, Florida 32601

Attention: Dr. M. E. Forsman

Subject: MODIFICATION NO. 2 TO CONTRACT NO. AT-(40-1)-3298

Gentlemen:

Enclosed, for your retention, is one fully signed copy of the
subject modification.

Very truly yours,

Original Signed By
R. G. Humphries

R. G. Humphries, Director
Contract Division
Oak Ridge Operations

NFF
Enclosure:
Modification 2

OAK RIDGE OPERATIONS
RE VEC

OCT 31 5 31 PM '66

OFFICE ▶	Contract Div.	Contract Div.			
SURNAME ▶	<i>Brown</i> /ARBrown	<i>R. G. Humphries</i> R. G. Humphries			
DATE ▶	10-31-66	10-31-66			

1171424



COLLEGE
OF
ENGINEERING

UNIVERSITY OF FLORIDA

GAINESVILLE, FLORIDA 32601
AREA CODE 904 PHONE 376-3261

ENGINEERING AND INDUSTRIAL EXPERIMENT STATION
EXT. 2341

October 25, 1966

U. S. Atomic Energy Commission
Oak Ridge
Tennessee 37830

Reference: ACC:ARB

Attention: Mr. R. G. Humphries, Director
Contract Division
Oak Ridge Operations

Subject: Modification No. 2 to Contract No. AT-(40-1)-3298

Gentlemen:

Enclosed are two copies of the above-numbered modification which has been approved on our behalf. It is requested that one fully executed copy be returned to the attention of the undersigned.

Very truly yours,

M. E. Forsman

M. E. Forsman, Director

Enclosure *OK*

39450

1127025

ACC:ARB

Oak Ridge, Tennessee 37830
October 12, 1966

University of Florida
Florida Engineering & Industrial
Experiment Station
Gainesville, Florida 32608

Attention: Dr. M. E. Furman, Director

Subject: MODIFICATION NO. 2 TO CONTRACT NO. AT-(40-1)-3298

Gentlemen:

Enclosed, in triplicate, is proposed Modification No. 2 to the subject contract which provides for additional research; extension of the period for performance to September 30, 1967; and certain other changes in the contract language. A supply of voucher forms is also enclosed.

If the modification, as submitted, is satisfactory, will you have two of the enclosed copies signed by the proper official of the University and return them to this office. The remaining copy is for your retention. After signature and dating on behalf of the Commission, one fully signed copy of the modification will be returned for your files.

Very truly yours,

Original signed by
A. E. Johnston, ~~Acting~~

R. G. Humphries, Director
Contract Division
Oak Ridge Operations

- Enclosure: *MFF*
1. Modification 2 (in trip.)
2. Voucher Forms

OK/ cc: Div. of Biology & Medicine, AEC Hdqtrs.
C. S. Shoup

Acting
Director
Contract Div.
[Signature]
A. E. Johnston
10-12-66

OFFICE ▶	Contract Div.				Contract Div.
SURNAME ▶	<i>[Signature]</i> ARBrown:djg				<i>[Signature]</i> A. E. Johnston
DATE ▶	10-12-66				10-12-66

1127133

Modification 1, dated November 15, 1965 and effective as of
October 1, 1965, to Contract AT-(40-1)-3298

University of Florida

Distributed: November 15, 1965

Distribution

Contract Files (2) (1 sgd - 1 cnfd)
Finance
Research & Development (2)
Washington (B & M) (2)
Contractor (1 sgd)
Extra Copies

ACC:ARB

Oak Ridge, Tennessee 37831
November 15, 1965

University of Florida
College of Engineering
Engineering and Industrial
Experiment Station
Gainesville, Florida 32603

Attention: Dr. M. E. Forsman, Director

Subject: MODIFICATION NO. 1 TO CONTRACT NO. AT-(40-1)-8298

Gentlemen:

Enclosed, as requested in your letter of November 9, 1965, is one fully signed copy of the subject modification.

Very truly yours,

Signed by
Humphries

E. G. Humphries, Director
Contract Division
Oak Ridge Operations

Enclosure: *MFF*
Mod. 1

OFFICE ▶	Contract Div.	Director		
SURNAME ▶	<i>Brown</i> ARBrown	<i>Humphries</i> RHumphries		
DATE ▶	11-15-65	11-15-65		

1127720



COLLEGE
OF
ENGINEERING

ENGINEERING AND INDUSTRIAL EXPERIMENT STATION
EXT. 2341

UNIVERSITY OF FLORIDA

GAINESVILLE, FLORIDA 32603
AREA CODE ~~305~~ PHONE 376-3261
904

November 9, 1965

U. S. Atomic Energy Commission
Oak Ridge
Tennessee 37831

Reference: ACC:DJG

Attention: Mr. R. G. Humphries, Director
Contract Division

Subject: Modification No. 1 to Contract No. AT-(40-1)-3298

Gentlemen:

As requested in your letter of November 3, 1965, enclosed are two copies of the above-numbered modification which has been approved on our behalf. It is requested that one fully executed copy be returned to this office to the attention of the undersigned.

Very truly yours,

M. E. Forsman, Director

Enclosure *OK 777R*

36163

1127029

ACC:DJG

Oak Ridge, Tennessee 37831
November 3, 1965

University of Florida
Florida Engineering and Industrial
Experiment Station
Coastal Engineering Laboratory
Gainesville, Florida

Attention: Dr. P. Brum

Subject: MODIFICATION NO. 1 TO CONTRACT NO. AT-(40-1)-3208

Gentlemen:

Enclosed are eight (8) copies of proposed Modification No. 1 to the subject contract which provides for additional research; extension of the period for performance to September 30, 1966; and certain other changes in the contract language. A supply of voucher form is also enclosed.

If the modification, as submitted, is satisfactory, will you have two (2) of the enclosed copies signed by the proper official of the State Board of Control and return them to this office. The remaining copies are for your retention. After signature and dating on behalf of the Commission, one (1) fully signed copy of the modification will be returned for your files.

Very truly yours,

Original Signed By
R. G. Humphries
R. G. Humphries, Director
Contract Division
Oak Ridge Operations

NFT
Enclosures:

- 1. Modification No. 1 (8 cpy)
- 2. Voucher Form

cc: Div. of Biology & Medicine, AEC Bldg.
G. S. Shoup

OFFICE	Contract Div.	Contract Div.			
SURNAME	/DJGann	R.G. Humphries			
DATE	11-3-65	11/3-65			

1107130

ACC:ARB

Oak Ridge, Tennessee 37831
December 8, 1964

University of Florida
College of Engineering
Engineering and Industrial
Experiment Station
Gainesville, Florida 32608

Attention: Dr. M. E. Feraman, Director, Engineering Administration

Subject: CONTRACT NO. AT-(40-1)-3298

Gentlemen:

Enclosed, for your retention, is one fully signed copy of the subject contract. Also enclosed is a sheet entitled "Notice: Use of Equal Employment Opportunity Poster; Standard Form 38 and Compliance Report Forms Under Federal Contract," with indicated enclosures.

This contract will be administered by the Chief, Biology Branch, Research and Development Division, Oak Ridge Operations Office. A copy of Statement of Authority No. 20 and a copy of Assignment of Contract for Administration form are enclosed for your files.

Very truly yours,

Handwritten initials
E. C. Humphries

E. C. Humphries, Director
Contract Division
Oak Ridge Operations

NFF

Enclosures:

- 1. Contract AT-(40-1)-3298 *OVK*
- 2. Notice re Equal Employment Opportunity, w/encs *CHP*
- 3. Statement of Authority No. 20 *03 LN, PH*
- 4. Cy Form OR-169-A

cc: C. S. Sheop *OK*

OFFICE ▶	Contract Div.	Director Contract Div.			
SURNAME ▶	<i>Sheop</i> ARBrown	<i>Humphries</i> RCHumphries			
DATE ▶	12-8-64	12-8-64			

1121031



COLLEGE
OF
ENGINEERING

ENGINEERING AND INDUSTRIAL EXPERIMENT STATION
EXT. 2341

UNIVERSITY OF FLORIDA

GAINESVILLE, FLORIDA 32603
AREA CODE 305 PHONE 376-3261

December 1, 1964

U. S. Atomic Energy Commission
Oak Ridge
Tennessee 37831

Reference: ACC:ARB

Attention: Mr. R. G. Humphries, Director
Contract Division
Oak Ridge Operations

Subject: Contract No. AT-(40-1)-3298

Gentlemen:

Enclosed is the additional copy of the above-numbered contract which was omitted from our letter of November 19, 1964.

The statement requested in the second paragraph of your letter of November 24 will be forwarded to you within the next few days.

Very truly yours,

L. L. Kalkman

(Mrs.) L. L. Kalkman
Secretary to Dr. Forsman

Enclosure

20

32708

1127032

Contract AT-(40-1)-3298 dated October 1, 1964

University of Florida

Distributed: December 8, 1964

Distribution:

Contract Files (2) (1 sgd - 1 cnfd)

Finance

Research & Development (2)

Washington (B & M) (2)

Contractor (1 sgd)

Extra Copies

ACC:AMB

Oak Ridge, Tennessee 37831
November 24, 1964

University of Florida
College of Engineering
Engineering and Industrial
Experiment Station
Gainesville, Florida 32608

Attention: Dr. M. E. Forsman, Director, Engineering Administration

Subject: CONTRACT NO. AT-(40-1)-3298

Gentlemen:

Only one copy of the subject contract was returned with your letter of November 19, 1964. Will you kindly send another copy which has been approved on your behalf. After signature on behalf of the Commission, one fully signed copy of the contract will be returned for your files.

Will you also please furnish us a statement from the President of the University that Dr. E. R. Hendrickson, Director of Research, has been authorized to sign contracts on behalf of the University of Florida.

Very truly yours,

Original signed by
R. G. Humphries
R. G. Humphries, Director
Contract Division
Oak Ridge Operations

OAK RIDGE OPERATIONS

NOV 24 4 28 PM '64

DISPATCHED

OFFICE ▶	Contract Div.	Director Contract Div.			
SURNAME ▶	<i>Brown</i> ARBrown	<i>R. G. Humphries</i> RGHumphries			
DATE ▶	11-24-64	11-24-64			

1127434



COLLEGE
OF
ENGINEERING

ENGINEERING AND INDUSTRIAL EXPERIMENT STATION
EXT. 2341

UNIVERSITY OF FLORIDA

GAINESVILLE, FLORIDA 32603
AREA CODE 305 PHONE 376-3261

November 19, 1964

U. S. Atomic Energy Commission
Oak Ridge
Tennessee 37831

Attention: Mr. R. G. Humphries, Director
Contract Division
Oak Ridge Operations

Subject: Contract No. AT-(40-1)-3298

Gentlemen:

Enclosed are two copies of the above-numbered contract which has been approved on our behalf. It is requested that one fully executed copy be returned to the attention of the undersigned.

Also enclosed is the completed Notice of Research Project Form forwarded with your letter of October 26.

*To RGD
12/7/64*

Very truly yours,

M. E. Forsman, Director
Engineering Administration

Enclosures
OK

32623

1127435

ACC:AMB

Oak Ridge, Tennessee 37831
November 9, 1964

University of Florida
Engineering and Industrial
Experiment Station
Gainesville, Florida

Attention: Dr. H. E. Feraman, Director, Engineering Administration

Subject: CONTRACT NO. AT-(49-1)-3298

Gentlemen:

Enclosed are eight copies of revised Appendix "A" to the subject contract. This revision was requested by you in a recent telephone conversation with Mr. Rounsaville of this office. Will you please substitute the enclosed copies of Appendix "A" in the copies of the contract that were forwarded with our letter of October 26, 1964.

If the contract, as now written, is satisfactory, will you have two of the copies signed by the proper official of the State Board of Control and return them to this office. After signature and dating on behalf of the Commission, one fully signed copy of the contract will be returned for your files.

Very truly yours,

RECEIVED
6 2 1964

E. C. Humphries, Director
Contract Division
Oak Ridge Operations

QFT
Enclosure:

Revised Appendix "A" (8 cpy)

cc: J. E. Rounsaville

OAK RIDGE OPERATIONS
N2 VEC

NOV 3 2 10 PM '64

OFFICE ▶	Contract Div.	DISPATCHED	Contract Div.		
SURNAME ▶	/ARBrown	<i>[Signature]</i>	RGHumphries		
DATE ▶	11-9-64		11-9-64		

1127436

APPENDIX "A"

For the Contract Period October 1, 1964 through September 30, 1965.

A-I RESEARCH TO BE PERFORMED BY CONTRACTOR

The Contractor will conduct research on the amounts and rates of movement of simulated reactor accident debris in the near-shore waters and on the beaches adjacent to the Atlantic Missile Range launching facilities at Cape Kennedy, Florida. This research will include such approaches as (1) conducting experiments using fluorescent dyes in the near shore zone to find out how far off shore fission products of any size beyond that of wash-load materials will move along the bed until they reach the shore and their distribution along shore, and (2) conducting experiments using radioactive tracers to find out how fast fission products of any size beyond that of wash-load deposits in the off-shore zone move and where they go.

A-II APPROXIMATE LEVEL OF RESEARCH EFFORT

<u>(a) Contractor Personnel:</u>	<u>Approx. % of time</u>
Dr. P. Bruun, Co-Principal Investigator	10%
Dr. A. M. Kamel, Co-Principal Investigator	20%
Research Associate	15%
Research Assistant	15%
Technician	30%
Draftsman	10%
<u>(b) Premises, Facilities, and Materials to be Furnished by the Contractor:</u>	

Adequate field equipment and laboratory facilities will be available to conduct the proposed research on tracing of special material transport in the ocean at Cape Kennedy.

<u>A-III ITEMS OF EQUIPMENT TO BE PURCHASED OR FABRICATED BY CONTRACTOR COSTING \$500 OR MORE</u>	<u>Estimated Cost</u>
Dust Pan Sampler	\$2,000.00

APPENDIX "A"

For the Contract Period October 1, 1964 through September 30, 1965.

A-I RESEARCH TO BE PERFORMED BY CONTRACTOR

The Contractor will conduct research on the amounts and rates of movement of simulated reactor accident debris in the near-shore waters and on the beaches adjacent to the Atlantic Missile Range launching facilities at Cape Kennedy, Florida. This research will include conducting pilot experiments using fluorescent dyes in the near shore zone to find out how far off shore fission products of any size beyond that of wash-load materials will move along the bed until they reach the shore and their distribution along shore.

A-II APPROXIMATE LEVEL OF RESEARCH EFFORT

<u>(a) Contractor Personnel:</u>	<u>Approx. % of time</u>
Dr. P. Bruun, Principal Investigator	10%
Research Associate	35%
Research Assistant	15%
Technician	30%
Draftsman	10%

(b) Premises, Facilities, and Materials to be
Furnished by the Contractor:

Adequate field equipment and laboratory facilities will be available to conduct the proposed research on tracing of special material transport in the ocean at Cape Kennedy.

<u>A-III ITEMS OF EQUIPMENT TO BE PURCHASED OR FABRICATED BY CONTRACTOR COSTING \$500 OR MORE</u>	<u>Estimated Cost</u>
Dust Pan Sampler	\$2,000.00

ACC:ARB

Oak Ridge, Tennessee 37831
October 26, 1964

University of Florida
Florida Engineering and Industrial
Experiment Station
Coastal Engineering Laboratory
Gainesville, Florida

Attention: Dr. P. Brown and Dr. A. M. Khalil

Subject: CONTRACT NO. AF-(40-1)-3298

Gentlemen:

Enclosed are eight copies of proposed Contract No. AF-(40-1)-3298 which provides for research in connection with tracing of special material transport in the ocean at Cape Kennedy. A Notice of Research Project Form is also enclosed.

If the contract, as submitted, is satisfactory, will you have two of the enclosed copies signed by the proper official of the State Board of Control and return them to this office. The remaining copies are for your retention. After signature and dating on behalf of the Commission, one fully signed copy of the contract will be returned for your files.

The completed Notice of Research Project Form should be returned with the signed copies of the contract.

Very truly yours,

Signature signed by
R. G. Humphries

R. G. Humphries, Director
Contract Division
Oak Ridge Operations

NFF
UCI
Enclosures:

1. Contract AF-(40-1)-3298 (8 cys)
2. Notice of Research Project Form

OFFICE ▶	cc: Div. of Biology & Medicine, AEC Hdqtrs	Contract Div.	Director
SURNAME ▶	<i>OK</i> C. S. Shoup	<i>Brown</i> ARBrown	<i>Humphries</i> RGHumphries
DATE ▶		10-26-64	10-26-64