MODIFICATION NO. M028
CONTRACT NO. DE-ACO2-98CH10886

This document consists of 3 pages excluding this cover page.

MODIFICATION NO. M028
SUPPLEMENTAL AGREEMENT TO
CONTRACT NO. DE-AC02-98CH10886

MODIFICATION NO. M028

CONTRACTOR AND ADDRESS:	Brookhaven Science Associates, LLC Brookhaven National Laboratory Upton, NY 11973
MODIFICATION FOR:	Recognition of previous obligation increases; establishes the fee for FY1999; replaces Appendix I - DOE Directives; and adds Appendix L - Computation of Fee.
PRIOR OBLIGATION:	$730,710,812.55
INCREASE IN MODS. A025 THROUGH A027	$ 18,511,722.57
INCREASE IN THIS MODIFICATION	-0-
CURRENT TOTAL OBLIGATION:	$749,222,535.12

THIS MODIFICATION, effective the day of 1999, by and between the UNITED STATES OF AMERICA (hereinafter referred to as the "Government"), as represented by the UNITED STATES DEPARTMENT OF ENERGY (hereinafter referred to as "DOE"), and BROOKHAVEN SCIENCE ASSOCIATES, LLC (hereinafter referred to as the "Contractor"),

WITNESSETH THAT:

WHEREAS, the Government and the Contractor entered into Contract No. DE-AC02-98CH10886) on the 5th day of January 1998, for the operation of the Brookhaven National Laboratory; and

WHEREAS, said contract has been modified previously, and the parties desire to modify said contract further, as hereinafter provided; and

WHEREAS, this modification is authorized by law, including 41 U.S.C. 252(c)(15), P.L. 95-91 and other applicable law;

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

1. The first sentence of paragraph (a) of Article 31, OBLIGATION OF FUNDS, is revised to read as follows: "The amount presently obligated by the Government with respect to this contract is $749,222,535.12."

2. ARTICLE 32, ALLOWABLE COSTS AND FIXED FEE (MANAGEMENT AND OPERATING CONTRACTS) (JUN 1997) (DEVIATION) is modified as follows: "

(1) The first sentence of paragraph (b) Fee(s) is modified by adding the following phrase to the end of the sentence "...; for the period October 1, 1998 through and including September

30, 1999 the maximum fee earnable is $,7,000,000.00 as determined by the procedures outlined in Appendix L - Computation of Fee."

(2) The third sentence of paragraph (b) Fee(s) is modified by deleting the phrase "...October 1, 1998 to and including September 30, 1999,..."

3. Article 119 - PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTOR'S DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995) is modified as follows:

(1). In subparagraphs (a) and (b) delete the phrase "...the small purchase limitation at FAR 13.000..." and replace with the dollar amount of "$25,000" in each subparagraph.

(2). In line 5 of subparagraph (c) add the following phrase after "...Procurement Programs " in the parenthetical "and NonProcurement Programs"

(3). In the last lines of subparagraphs (c)(2) and (3) delete the period and add the phrase "and Nonprocurement Programs."

4. APPENDIX I - DOE Directives identified as Modification M024 is deleted in its entirety and replaced by Appendix I - DOE Directives identified as Modification M028.

5. APPENDIX L - COMPUTATION OF FEE is added.

IN WITNESS WHEREOF, the parties have executed this document.

UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

BY:_____

Contracting Officer

DATE:_____

BROOKHAVEN SCIENCE ASSOCIATES, LLC

BY: Brian P. Sack

Brian P. Sack
Chief Financial Officer

(Title)

DATE: July 22, 1999

APPENDIX I

DOE DIRECTIVES

There is no List A to this Appendix.

List B to this Appendix contains two parts as follows:

Part I: " Directives List"

This section contains a list of Directives that are considered by DOE as applicable to the BNL contract.

Part II: "Partial Deletions of Directives"

This section contains a list of Directives that were accepted and implemented by the previous contractor but have subsequently been revised by DOE to remove certain sections.

Appendix I - Part I

CRD=Contract Requirements Document

DIRECTIVES LIST		
DATE	DOE DIRECTIVE NUMBER	SUBJECT TITLE
7/15/97	N 440.1	CRD - INTERIM CHRONIC BERYLLIUM DISEASE PREVENTION PROGRAM
9/30/95	N 441.1	RADIOLOGICAL PROTECTION FOR DOE ACTIVITIES (using ORNL/TM-11497 in lieu of Attachment 1)
9/19/96	N 441.2	EXTENSION OF DOE N 441.1, RADIOLOGICAL PROTECTION FOR DOE ACTIVITIES
9/17/97	N 441.3	EXTENSION OF DOE N 441.1, RADIOLOGICAL PROTECTION FOR DOE ACTIVITIES
11/20/98	N 441.4	EXTENSION OF DOE N 441.1, RADIOLOGICAL PROTECTION FOR DOE ACTIVITIES
9/29/95	O 130.1	CRD - BUDGET FORMULATION PROCESS
9/25/95 10/26/95 8/21/96	O 151.1 Change 1 Change 2	CRD - COMPREHENSIVE EMERGENCY MANAGEMENT SYSTEM
9/30/96	O 200.1	CRD - INFORMATION MANAGEMENT SYSTEM
9/27/95 10/26/95 5/1/95	O 210.1 Change 1 Change 2	CRD - PERFORMANCE INDICATORS AND ANALYSIS OF OPERATIONS INFORMATION
12/8/97	O 224.1	CRD - CONTRACTOR PERFORMANCE-BASED BUSINESS MANAGEMENT PROCESS
11/26/97	O 225.1A	CRD - TYPE A AND B ACCIDENT INVESTIGATIONS
9/30/95 10/26/95 11/7/96	O 231.1 Change 1 Change 2	CRD - ENVIRONMENT, SAFETY & HEALTH REPORTING
8/1/97	O 232.1A	CRD - OCCURRENCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION (As modified by letter Grahn/Gordon, dated 4/10/98, effective 5/5/98)
7/21/97	M 232.1-1A	OCCURRENCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION (As modified by letter Grahn/Gordon, dated 4/10/98, effective 5/5/98)
8/17/98	O 241.1	CRD - SCIENTIFIC AND TECHNICAL INFORMATION (STI) MANAGEMENT
1/30/98	O 251.1A	CRD - DIRECTIVES SYSTEM
12/30/96	O 311.1A	CRD - EQUAL EMPLOYMENT OPPORTUNITY AND DIVERSITY PROGRAM

*See Part II, Partial Deletions

DIRECTIVES LIST		
DATE	DOE DIRECTIVE NUMBER	SUBJECT TITLE
9/30/96 5/8/98	O 350.1 Change 1	CRD - CONTRACTOR HUMAN RESOURCE MANAGEMENT PROGRAMS CRD - EMPLOYEE BENEFITS
12/6/95	O 413.1	CRD - MANAGEMENT CONTROL PROGRAM
3/5/97	O 413.2	CRD - LABORATORY DIRECTED RESEARCH AND DEVELOPMENT
11/24/98	O 414.1	CRD - QUALITY ASSURANCE
10/13/95 11/16/95 10/24/96	O 420.1 Change 1 Change 2	CRD - FACILITY SAFETY
11/5/98	O 420.2	CRD - DOE O 420.2, SAFETY OF ACCELERATOR FACILITIES
12/28/98	O 425.1A	CRD - DOE O 425.1A, STARTUP AND RESTART OF NUCLEAR FACILITIES, DATED 12/28/98
10/14/98	O 430.1A	CRD - LIFE CYCLE ASSET MANAGEMENT
6/13/96	O 430.2	IN HOUSE ENERGY MANAGEMENT (NO CONTRACTS REQUIREMENT DOCUMENT)
3/27/98	O 440.1A	CRD - WORKER PROTECTION MANAGEMENT FOR DOE CONTRACTOR EMPLOYEES
9/25/95 10/13/95 10/26/95	O 440.2 Change 1 Change 2	CRD - AVIATION
2/1/99	O 442.1	CRD - DEPARTMENT OF ENERGY EMPLOYEE CONCERNS PROGRAM
10/2/96	O 460.1A	CRD - PACKAGING AND TRANSPORTATION SAFETY
9/27/95 10/26/95	O 460.2 Change 1	CRD - DEPARTMENTAL MATERIALS TRANSPORTATION AND PACKAGING MANAGEMENT
9/28/95 6/21/95	O 470.1 Change 1	CRD - CONTRACTOR SAFEGUARDS AND SECURITY PROGRAM REQUIREMENTS
12/23/98	O 470.2	CRD - SAFEGUARDS AND SECURITY INDEPENDENT OVERSIGHT PROGRAM
9/25/95	O 471.1	CRD - IDENTIFICATION AND PROTECTION OF UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION
3/27/97	O 471.2A	CRD - INFORMATION SECURITY PROGRAM
1/6/99	M 471.2-1B	CRD - PROTECTION AND CONTROL OF CLASSIFIED MATTER
3/24/97	O 472.1B	CRD - PERSONNEL SECURITY ACTIVITIES
5/22/98	M 472.1-1	PERSONNEL SECURITY PROGRAM MANUAL (See CRD for DOE O 472.1B)

DIRECTIVES LIST		
DATE	DOE DIRECTIVE NUMBER	SUBJECT TITLE
5/8/98	M 475.1-1	CRD - IDENTIFYING CLASSIFIED INFORMATION
9/30/96	O 481.1	CRD - WORK FOR OTHERS (NON DOE FUNDED WORK)
9/29/95	O 534.1	CRD - ACCOUNTING
8/21/92 9/3/92	1240.2B Change 1	UNCLASSIFIED VISITS AND ASSIGNMENTS BY FOREIGN NATIONALS
6/23/92	1270.2B	SAFEGUARDS AGREEMENT WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY
5/19/92	1300.2A	DEPARTMENT OF ENERGY TECHNICAL STANDARDS PROGRAM
8/23/90	1300.3	POLICY ON THE PROTECTION OF HUMAN SUBJECTS
11/10/86 2/5/87 6/17/87 12/22/87 3/30/89 5/18/90 2/28/92 7/6/94	1500.3 Change 1 Change 2 Change 3 Change 4 Change 5 Change 6 Change 7	FOREIGN TRAVEL AUTHORIZATION
5/18/92	2030.4B	REPORTING FRAUD, WASTE, AND ABUSE TO THE OFFICE OF INSPECTOR GENERAL
1/27/93	2100.8A	COST ACCOUNTING, COST RECOVERY, & INTERAGENCY SHARING OF INFORMATION TECHNOLOGY FACILITIES
7/14/88 10/5/88 5/18/92	2110.1A Change 1 Change 2	PRICING OF DEPARTMENTAL MATERIALS AND SERVICES
6/8/92	2300.1B	AUDIT RESOLUTION AND FOLLOWUP
5/18/92	2320.1C	COOPERATION WITH THE OFFICE OF INSPECTOR GENERAL
2/10/94	4330.4B	MAINTENANCE MANAGEMENT PROGRAM (Nuclear Facilities Portion Only)
11/9/88 6/29/90	5400.1* Change 1	GENERAL ENVIRONMENTAL PROTECTION PROGRAM
2/8/90 6/5/90 1/7/93	5400.5* Change 1 Change 2	RADIATION PROTECTION OF THE PUBLIC AND THE ENVIRONMENT
5/15/84 5/16/88 5/16/89 9/20/91	5480.4* Change 1 Change 2 Change 3	ENVIRONMENTAL PROTECTION, SAFETY, AND HEALTH PROTECTION STANDARDS

*See Part II, Partial Deletions

DIRECTIVES LIST		
DATE	DOE DIRECTIVE NUMBER	SUBJECT TITLE
7/9/90 5/18/92	5480.19 Change 1	CONDUCT OF OPERATIONS REQUIREMENTS FOR DOE FACILITIES
11/15/94	5480.20A	PERSONNEL SELECTION, QUALIFICATION AND TRAINING REQUIREMENTS FOR DOE NUCLEAR FACILITIES
12/24/91	5480.21	UNREVIEWED SAFETY QUESTIONS
2/25/92 9/15/92 1/23/96	5480.22 Change 1 Change 2	TECHNICAL SAFETY REQUIREMENTS
4/10/92 3/10/94	5480.23 Change 1	NUCLEAR SAFETY ANALYSIS REPORTS
1/19/93	5480.30	NUCLEAR REACTOR SAFETY DESIGN CRITERIA
9/20/91	5530.1A	ACCIDENT RESPONSE GROUP
1/14/92 4/10/92	5530.3 Change 1	RADIOLOGICAL ASSISTANCE PROGRAM
5/8/85	5560.1A	PRIORITIES AND ALLOCATIONS PROGRAM
8/1/80	5610.2	CONTROL OF WEAPON DATA
7/15/94	5632.1C*	PROTECTION AND CONTROL OF SAFEGUARDS AND SECURITY INTERESTS
4/13/94	5632.7A	PROTECTIVE FORCE PROGRAM
9/7/94	5633.3B	CONTROL AND ACCOUNTABILITY OF NUCLEAR MATERIALS
5/26/94	5660.1B	MANAGEMENT OF NUCLEAR MATERIALS
9/4/92	5670.3	COUNTERINTELLIGENCE PROGRAM
5/18/92	5700.7C	WORK AUTHORIZATION SYSTEM
9/26/88	5820.2A*	RADIOACTIVE WASTE MANAGEMENT

ACCOUNTING PRACTICES AND PROCEDURES HANDBOOK		
5/2/83	Chapter V	INVENTORIES
6/30/80	Chapter X	PRODUCT COST ACCOUNTING

*See Part II, Partial Deletions

Appendix I - Part II

PARTIAL DELETIONS OF DIRECTIVES				
DATE	DOE DIRECTIVE NUMBER	SUBJECT TITLE	DELETION DIRECTIVE DATE	SECTIONS DELETED
11/9/88 6/29/90	5400.1 Change 1	GENERAL ENVIRONMENTAL PROTECTION PROGRAM	O 231.1 9/30/95 Change 1 10/26/95 Change 2 11/7/96	Paras. 2d, 2b, 4b & 4c of Chap II; Paras 2d & 3b of Chap III; Para 10(c) of Chap IV
2/8/90 6/5/90 1/7/93	5400.5 Change 1 Change 2	RADIATION PROTECTION OF THE PUBLIC AND THE ENVIRONMENT	O 231.1 9/30/95 Change 1 10/26/95	Chapter II: Para 1a(3) (a)
5/15/84 5/16/88 5/16/89 9/20/91	5480.4 Change 1 Change 2 Change 3	ENVIRONMENTAL PROTECTION, SAFETY, AND HEALTH PROTECTION STANDARDS	O 440.1 9/30/95 Change 1 10/26/95	Attachment 2: Paras 2c, 2d(2) - (3), 2e(1) - (8); and Attachment 3: Paras 2c, 2d(2) - (3), 2e(1) - (7)
7/15/94	M5632.1C-1	MANUAL FOR PROTECTION AND CONTROL OF SAFEGUARDS AND SECURITY INTERESTS	O 470.1 9/28/95 O 471.2A 3/27/97	Chapter XI Chapter III, Paras 1, 2, 4-9
9/26/88	5820.2A	RADIO ACTIVE WASTE MANAGEMENT	O 430.1A 10/14/98	Chapter V

*See Part II, Partial Deletions

APPENDIX L

COMPUTATION OF FEE

Modification M028

APPENDIX L

FY1999 FEE COMPUTATION

Fee Basis

- 1. The imum fee is to be in consonance with fees paid for the operation of similar DC laboratories and will have a single tier structure;

- 2. The f for integrated subcontractors are included in the total fee;

- 3. The structure is to be based on individual critical outcomes and their associa weights as determined separately;

- 4. The al outcome of Science and Technology will act as a "gate," in that a score o ellent or above is required; there will be no fee if any critical outcome is score Marginal or below.

Maximum Fee

The ma m earnable fee is $7.00M for FY1999.

Fee Matrix an e Percentage Curve

In cons tion of the fee basis, Figure (1) below is the fee-determining matrix for the case wher ence and Technology (S&T) achieves a score of Excellent or above. The right two nns of the Figure (1) matrix contain a fee percentage that determines the fee earne hin each of the score ranges of Outstanding, Excellent, Good and Marginal. In th ent that a Critical Outcome score is between two matrix scores, the fee percentage wi determined by interpolation.

If S&T a eves a score below Excellent, the fee matrix is inapplicable. If S&T is scored in the range, a single partial-cost-recovery fee of $2.1M (the annual BSA operating bud s applicable. If S&T is Marginal there will be no fee, as with the non-science c outcomes.

Fee for Integr Subcontractors

The Lab tory's "integrated subcontractors" are defined as those subcontractors that are part the BNL management structure and have responsibilities for the

supervision of BNL employees. The total maximum earnable fee of $7.00M is directly related to the accomplishment of the FY1999 BNL total business base of $416M. In FY1999, BSA's three integrated subcontractors (Bechtel, Waste Management and Duke Engineering) will accomplish approximately $27M of work. The subcontractor work is approximately 6.45% of the FY1999 BNL business base. BSA has determined that the fee for its integrated subcontractors is to be in the same proportion as the subcontractors' work to the total business base. The maximum earnable fee for BSA is the only fee pool available for the integrated subcontractors. BSA will negotiate each integrated subcontractor's fee and pay that fee from its total earned fee.

Article 36 Payments and Advances

For purposes of installments of fixed-fee in accordance with paragraph (a) of Article 36, the fee amount against which the 90% payment is authorized for FY 1999 is $5,833,333. If after DOE's evaluation of BSA's performance for FY1999 a higher amount of fee is authorized then BSA may draw the difference between the higher fee and the amount received through the periodic installments for FY1999. If however, after DOE's evaluation of BSA's performance for FY1999 a lower amount of fee is authorized BSA will reimburse DOE all amounts received through periodic installments above the authorized fee amount within 30 days after receiving notice from DOE of the fee authorized for FY1999.

APPENDIX L

Figure (1): *Fee Determination Matrix*

Critical Outcome (CO)		**Science & Technology**	**Commun-ications & Trust**	**Operational Excellence**	**Environ-mental Steward-ship**	Max Fee: $7.000M	
CO Weight		60%	10%	15%	15%	% of Max Fee	
CO Max Fee ($M)		$4.200	$0.700	$1.050	$1.050	Science	Non-Science
	Score						
Out-standing	*4.00*	$4.200	$0.700	$1.050	$1.050	100.0	100.0
	3.75	$4.129	$0.688	$1.032	$1.032	98.3	98.3
	3.50	$4.061	$0.677	$1.015	$1.015	96.7	96.7
Excellent	*3.25*	$3.990	$0.665	$0.998	$0.998	95.0	95.0
	3.00	$3.780	$0.630	$0.945	$0.945	90.0	90.0
	2.75	$3.570	$0.595	$0.893	$0.893	85.0	85.0
	2.50	$3.360	$0.560	$0.840	$0.840	80.0	80.0
Good	*2.25*	Flat $2.100	$0.508	$0.761	$0.761	30.0	72.5
	2.00	Flat $2.100	$0.455	$0.683	$0.683	30.0	65.0
	1.75	Flat $2.100	$0.403	$0.604	$0.604	30.0	57.5
	1.50	Flat $2.100	$0.350	$0.525	$0.525	30.0	50.0
Marginal	*1.25*	**No Fee**	**No Fee**	**No Fee**	**No Fee**	0	0
	1.00					0	0
	0.75					0	0
	0.50					0	0