MODIFICATION NO. M020
CONTRACT NO. DE-ACO2-98CH10886

This document consists of 2 pages excluding this cover page.

MODIFICATION NO. M020
SUPPLEMENTAL AGREEMENT TO
CONTRACT NO. DE-AC02-98CH10886

MODIFICATION NO. M020

CONTRACTOR AND ADDRESS:	Brookhaven Science Associates, LLC Brookhaven National Laboratory Upton, NY 11973
MODIFICATION FOR:	Recognition of previous obligation increases; addition of Page 9 FY 1998 Performance Measures Scoring to Appendix B; replacement of Attachment 1 - Summary of FY98 Performance Measures & Attachment 1A - FY98 Performance Metrics of Appendix B; and replacement of Appendix I - DOE Directives.
PRIOR OBLIGATION:	$448,327,859.25
INCREASE IN MODS. A018 THROUGH A019	$248,269,775.71
INCREASE IN THIS MODIFICATION	-0-
CURRENT TOTAL OBLIGATION:	$696,597,634.96

THIS MODIFICATION, effective the day of 1998, 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 $696,597,624.96."
2. Page 9 - FY 1998 Performance Measures Scoring is added to Appendix B and identified as Modification M020.

3. Attachment 1 - Summary of FY98 Performance Measures is replaced in its entirety by the attached Attachment 1 - Summary of FY98 Performance Measures identified as Modification M020.

4. Attachment 1A - FY98 Performance Metrics is replaced in its entirety by the attached Attachment 1A FY98 Performance Metrics identified as Modification M020

5. Appendix I - DOE Directives, identified as Modification M017 is deleted in its entirety and replaced by the attached Appendix I - DOE Directives identified as Modification M020 .

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: Gregory J. Ogeka

Gregory J. Ogeka
Interim Chief Financial Officer
(Title)

DATE: 1/21/99

FY 1998 Performance Measures Scoring

Science & Technology	50%
Environment, Safety & Health	30%
Communications & Trust	20%

- **Science & Technology** **50%**

  Scoring to be performed by DOE-HQ Office of Energy Research

- **Environment, Safety, & Health** **30%**

Goal 1, Indicator 1, Measure (a)	Permit Exceedances	.15
Goal 1, Indicator 2, Measure (a)	Recordable Case Rate	.06
Goal 1, Indicator 2, Measure (b)	Lost Workday Case Rate	.08
Goal 1, Indicator 2, Measure (c)	Cost Index	.05
Goal 1, Indicator 2, Measure (d)	Collective Dose	.07
Goal 1, Indicator 2, Measure (e)	Contaminations	.06
Goal 1, Indicator 3, Measure (a)	Solid Waste to Landfill	.05
Goal 1, Indicator 3, Measure (b)	Hazardous, Radioactive, & Mixed Waste	.10
Goal 2, Indicator 1, Measure (a)	Clear ES&H R2A2	.05
Goal 2, Indicator 1, Measure (b)	Established T&Q Program	.05
Goal 2, Indicator 1, Measure (c)	Hazard Analysis and Control System	.05
Goal 2, Indicator 1, Measure (d)	Prioritization System	.05
Goal 2, Indicator 1, Measure (e)	Surveillance and QA Program	.05
Goal 2, Indicator 1, Measure (f)	Increased Management Walk-throughs	.05
Goal 3, Indicator 1, Measure (a)	Employee concerns acknowledged	.02
Goal 3, Indicator 1, Measure (b)	Employee Satisfaction Survey	.02
Goal 3, Indicator 2, Measure (a)	Worker Involvement in Planning	.02
Goal 3, Indicator 2, Measure (b)	Employee Involvement Survey	.02

- **Communications & Trust** **20%**

Goal 1, Indicator 1, Measure (a)	Achieve completed submission of the Plan	.25
Goal 1, Indicator 1, Measure (b)	Achievement of significant goals/ milestones	.20
Goal 1, Indicator 2, Measure (a)	Establish Community Involvement Policy	.15
Goal 1, Indicator 2, Measure (b)	Approach document for Plan	.10
Goal 1, Indicator 2, Measure (c)	Approach document for Mgmt System	.10
Goal 1, Indicator 2, Measure (d)	Establish and support CAC	.20

Summary of FY98 Performance Measures

I. SCIENCE AND TECHNOLOGY PROGRAM

The very nature of scientific and technical inquiry, its complexity, duration, and examination of the unknown, make it difficult to establish purely quantitative criteria for evaluating the results of this research. In recognition of this difficulty, peer review systems have proven their worth in influencing the direction of, and establishing standards for scientific and technical research (see Attachment 1A). The goals and indicators and measures below form the basis for the peer review of the science and technology programs at BNL.

Goal 1: Provide new insights into the nature of matter and energy, and the processes of nature.

Indicator 1: Quality of science.

Measures:

a. Original and creative scientific output that advances fundamental science and opens new fields of inquiry;

b. An innovative, productive research staff that is recognized as such by their peers;

c. Recognition as a world class research institution providing state-of-the-art facilities to the user community;

Goal 2: Provide the science core competencies that contribute to successful DOE and national programs.

Indicator 1: Relevance to DOE missions or national needs.

Measures:

a. Contribution to U.S. leadership in international scientific community;

b. Extent of interaction with other science and technology programs;

c. Relationship to laboratory and DOE Strategic Plans and guidance;

d. Advanced research facilities that serve the needs of a wide diversity of scientific users from industry, academia, and Government laboratories;

Indicator 2: Effective and Efficient Research Program Management.

Measures:

a. Well-developed research plans;

b. Optimal use of personnel, facilities and equipment;

c. Meeting budget projections and milestones;

d. Effective decision-making in managing and redirecting projects;

e. Identifying and avoiding or overcoming technical problems;

Goal 3: Construct and operate leading-edge experiments and user facilities on schedule, within budget and in a safe and environmentally sound manner.

Indicator 1: Success in construction and operation of facilities.

Measures:

a. Operating facilities that provide forefront research capabilities;

b. Operating reliably and safely, according to planned schedules; and achieving performance specifications;

c. Maintaining and improving facilities at reasonable/defensible cost;

d. Strong and enthusiastic user support;

e. Progress in construction is measured in accordance with agreed-to milestones;

Goal 4: Add value to the U.S. Economy through the development and application of new and improved technologies.

Indicator 1: Quality of the technical plan (technical approach with milestones).

Measures:

a. Clearly-identified goals and criteria for success;

b. Adequate analysis of risks and possible failure modes;

c. Evaluation of reasonableness of proposed cost and schedule;

Indicator 2: Expectations of potential or actual customers.

Measures:

a. How well expectations of customers are defined;

b. Whether the output is consistent with these expectations;

Indicator 3: Technical approach.

Measures:

a. Whether there is a solid scientific basis to the approach;

b. Degree of innovation;

c. Stretching 'state-of-the-art';

d. Productivity – whether the output is commensurate with the input when compared with other similar activities;

Indicator 4: Industrial interest.

Measures:

a. Degree of participation by industry as evidenced by joint planning and funding;

II. ENVIRONMENT, SAFETY AND HEALTH

Ensuring the safety and health of workers and the public and the protection and restoration of the environment are fundamental responsibilities of DOE. Effective performance in environmental, safety, and health activities and timely implementation are critical to the success of each of the Department's businesses.

For FY98, three performance goals have been identified, as summarized below, with performance indicators and measures. The metrics for the measures, including weighting factors, baseline information, evaluation formulas and methodologies, and performance level ratings, are provided in Attachment 1A.

Goal 1: Improved occupational and public safety, and environmental quality.

Indicator 1: Environmental releases are below regulatory limits and Departmental requirements, and meet DOE goals.

Measure:

a. Number of Environmental Permit Exceedances during reporting period;

Indicator 2: Contractor worker injury and exposure rates continue to demonstrate an improving trend in FY 1998 as compared with the past rates. The Contractor will make efforts to move toward the DOE Chicago research laboratory averages with its program.

Measures:

a. Reportable Injury/Illness Rate;

b. Lost Workday Case Rate;

c. Injury Cost Index;

d. Collective site-wide ManRem exposure rate;

e. Number of Radioactive Contaminations;

Indicator 3: Facility effluents and emissions decrease over time.

Measures:

a. The quantities (by weight) of solid waste (in various waste streams) recycled;

b. Quantities of hazardous, radioactive and mixed waste generated;

Goal 2: Reasonable progress toward implementation of an Integrated Safety Management System, as required by contract clause "Integration of ES&H into Work Planning and Execution."

Indicator 1: Issues identification and prioritization systems in place.

Measures:

a. Clear ES&H roles, responsibilities and authorities, with strengthened organizational management and individual accountability for ES&H, as reflected in effective ES&H issue and corrective action management.

b. Established program and procedures for training and qualification of line managers, ES& H managers, and subcontractors in environment, safety and health.

c. Hazard analysis and control system established to assure that hazards for work activities have been identified, documented, and disseminated to affected workers, and controls have been designed and implemented to eliminate/mitigate these hazards.

d. System established to assure that hazards have been prioritized (least hazardous to most hazardous) and resources have been identified, planned, and expended to eliminate/reduce risks.

e. Routine on-site surveillance and quality assurance programs identify ES&H performance status and verify conformance of practices to ES&H program expectations, and assure all identified issues and non-conformances are addressed in systematic manner which assures review, assigns and tracks action, identifies follow-up and confirms effectiveness.

f. Increased management presence in facilities as evidenced by an established system of personal walk-throughs conducted by senior

managers, which provides for managers' accountability for issue identification and resolution.

Goal 3: Empowerment of workers to be actively engaged in the ES&H program by taking necessary actions to prevent serious injuries and fatalities and to eliminate worker exposures and environmental releases in excess of established limits.

Indicator 1: Employees freely express concerns and concerns are acknowledged and resolved in a timely manner.

Measures:

a. Percentage of employee concerns acknowledged by the Contractor within 48 hours of receipt;

b. Employee surveys to develop baseline in terms of employee concern management;

Indicator 2: Laboratory workers are involved in the development and planning of tasks to accomplish laboratory work, including the identification of potential hazards and their control.

Measures:

a. A mechanism has been established and implemented which encourages workers to be involved in and provide input on laboratory tasks to be accomplished prior to their initiation.

b. Employee surveys show favorable response and improving trend in terms of employee involvement in ES&H;

III. COMMUNICATIONS AND TRUST (COMMUNITY INVOLVEMENT)

The DOE and its contractors must deal honestly and fairly with the public they serve, to increase knowledge and understanding of the mission and related activities. To this end, the contractor shall develop and implement a systematic approach to involving the community in every aspect of laboratory operations. The Contractor's ability to develop and implement an effective community involvement program will be continually measured. Performance goals and performance measures will be revised to reflect DOE and BNL site-specific communications and community involvement benchmarking and baselining initiatives, as well as the Contractor's performance.

Goal 1: Contractor will develop and maintain effective communications and community involvement programs.

Indicator 1: Develop and implement a Strategic Communications Plan and restructure the resources for support.

Measures:

a. Achieve completed submission of the Strategic Communications Plan.

b. Achievement of significant goals and/or milestones as identified in the DOE-approved Strategic Communications Plan for the performance period.

Indicator 2: Achieve a better understanding between the Laboratory and internal and external stakeholders.

Measures:

a. Establishment of a Laboratory Community Involvement policy that is acceptable to external stakeholders and DOE.

b. Develop an approach document for the community involvement plan using internal customers, external stakeholders, and contractor management for the actual plan development starting in fiscal year 1999.

c. Develop an approach document for a management system to address community requests; issues; and concerns.

d. Establishment and support of a Community Advisory Council (CAC).

FY98 Performance Metrics

Attachment 1 to Appendix B identifies the FY98 Performance Goals, Success Indicators, and Performance Measures. The Metrics associated with these measures are set forth below.

I. SCIENCE AND TECHNOLOGY PROGRAM

The very nature of scientific inquiry, its complexity, duration, and examination of the unknown, make it difficult to establish purely quantitative levels for rating the performance of the Contractor. In recognition of this difficulty, systems utilizing the review by scientific peers have proven their worth in influencing the direction of, and establishing standards for scientific research.

Approach:

The Director of the Office of Energy Research (ER) has the primary responsibility for evaluating laboratory scientific and technical research performance. Other Assistant Secretaries will evaluate those laboratory activities funded under their programs. The Assistant Secretaries and the ER Director will provide annual evaluations to the Contracting Officer who has responsibility for evaluating the overall performance of the Contractor. These annual evaluations should address, as appropriate, the Science and Technology Program goals, indicators, and measures in Appendix B Attachment 1.

Assumptions:

In performing these evaluations, the Assistant Secretaries and the ER Director will utilize a variety of different review mechanisms, which could include:

1. Program Manager's reviews of projects at the laboratory, including use of independent technical experts.
2. Advisory committees reporting to the Director, Office of Energy Research, that are appointed formally through the Federal Advisory Committee Act.
3. Special reviews of relevant laboratory activities conducted, as requested, for the Secretary of Energy, or for different Secretarial Officers.
4. Contractor internal review activities and self-assessments.
5. Technical and scientific reviews using outside technical experts on construction and fabrication projects.

II. ENVIRONMENT, SAFETY & HEALTH

The metrics for the ES&H performance measures are set forth below, including a description of the evaluation methodology ("Approach"), any relevant assumptions, and performance rating levels.

GOAL 1, Indicator 1, Measure a. Number of Environmental Permit Exceedances

Approach

Using the SPDES DMR results, the raw score for permit exceedances which occurred during the previous calendar year will be determined. The "raw" score is determined using the algorithm shown below.

SPDES Permit Performances Measures Raw Scoring

1. Has a SPDES limit been exceeded?
   If no, assign a raw score value of 0.
2. If yes, is the exceedance significant?
   If no, assign a raw score value of 1.
3. If yes, has the exceedance occurred in two or more consecutive months?
   If no, assign a raw score value of 2.
4. If yes, has the exceedance occurred for more than one consecutive quarter?
   If no, assign a raw score value of 2 per month of violation then add 3 to the raw score total.
5. If yes, assign a raw score value of 2 per month of violation then add 10 to the raw score total.

Once the raw score has been determined, for each exceedance episode determine the quality factor which will be used to adjust the raw score. The quality factor is used to rate the extent of the exceedance and is determined in accordance with the following table:

Quality Factor	Toxic Pollutants	pH	Non-Toxic Pollutant
1	1.0 – 1.5 x Limit	Within 1 SU of Limit	1.0 – 3 x Limit
3	1.5 – 3 x Limit	Within1.5 SY of Limit	3 – 5 x Limit
5	3 –5 x Limit	Within 2 SU of Limit	5 – 10 x Limit
10	5 – 10 x Limit	Greater than 2 SU from Limit	> 10 x Limit
20	> 10 x Limit	N/A	N/A

The Quality Factor is then multiplied by the raw score for each exceedance episode to determine the adjusted score.

The adjusted score is then increased by any non-conformance with SPDES Permit Schedule of Compliance. Failure to meet the scheduled completion date will be considered a violation of the BNL SPDES permit. Scoring for each non-conformance will be performed as follows:

Days Exceeding Scheduled Completion Date	Score
1 – 7	One (1) point shall be added to the SPDES non-conformance Score for each day the scheduled completion date is exceeded.
7 – 21	Two (2) additional points shall be added to the SPDES non-conformance Score for each day, in excess of seven, that the scheduled completion date is exceeded.
> 21	If the scheduled completion date is exceeded by more than 21 days, an additional 15 points will be added to the SPDES non-conformance Score.

The designated number of points are added for <u>each</u> schedule exceedance event. The overall adjusted score is then increased by the non-conformance score.

<u>Assumptions:</u>

1. Not including other SPDES permit non-conformances, a single late submission in excess of 21 days will automatically drop the annual performance measure to "Good." Two such submissions will result in an "Unsatisfactory" annual performance measure.
2. <u>Determination of a Significant Exceedance</u>
   Toxic Pollutants: Exceedance > 1.2 x Limit
   Non-Toxic Pollutants: Exceedance > 1.4 x Limit
   pH: > or < 1 SU from Limit
3. Toxic Pollutants include all metallic elements volatile organic compounds, cyanide and radiological contaminants.
4. Non-Toxic Pollutants include BOD, TSS, residual chlorine, ammonia nitrates/nitrites and coliform.

5. SPDES Permit Schedule of compliance is as follows:

Compliance Action Plan	Due Date
Submit final Engineering Report (ER) detailing the reduction of cooling water discharges to the sewage treatment plant.	12/01/96 ***COMPLETED***
Submit drawings of proposed rerouting of cooling water lines and any new point source discharges.	03/01/97 ***COMPLETED***
Commence construction of Phase I initiative.	05/01/97 ***COMPLETED***
Complete construction of Phase I	12/31/97 ***COMPLETED***
Attain operational level	04/01/98

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	0
Excellent	1-25
Good	26-45
Marginal	46-75
Unsatisfactory	> 75

GOAL 1, Indicator 2, Measures a.-c. Reportable Injury/Illness Rate (RCR), Lost Workday Case Rate (LWCR), Cost Index Rate (CI)

Approach:

RCR per 100 FTEs = $\frac{\text{Number of OSHA reportable injuries/illnesses x 200,000}}{\text{Total Hours Worked}}$

LWCR per 100 FTEs = $\frac{\text{Number of Lost Workday Cases x 200,000}}{\text{Employee House Worked}}$

CI = $\frac{\text{100(1,000,000 D + 500,000 T + 2,000 LWC + 1,000 WDL + 400 WDRL + 2,000 NFC)}}{\text{Total Hours Worked}}$

Where:

D	=	*# fatalities*
T	=	*# of permanent transfers or terminations due to occupational illness or injury*
LWC	=	*Lost Work Cases*
WDL	=	*Lost Work Days*
WDRL	=	*Restricted Work Days*
NFC	=	*Number of non-fatal cases w/o days away from work*

Assumptions:
Rating levels for measures a.-c. are based on the statistical deviation from the historical mean (Y), as follows:

Rating Level	**Performance**
Outstanding	< Y 2.33 SD
Excellent	< Y 1.65 SD
Good	< Y ± 1.65 SD
Marginal	> Y 1.65 SD
Unsatisfactory	> Y 2.33 SD

FY98 Performance Rating Levels:

	Outstand.	**Excellent**	**Good**			**Marginal**	**Unsatis.**
	<-2.33 SD	<-1.65 to -2.33 SD	-1.65 SD	Hist. Mean	+1.65 SD	>+1.65 to +2.33 SD	>+2.33 SD
RCR	<3.53	<3.95	3.95	4.95	5.95	>5.95	>6.37
LWCR	<2.31	<2.54	2.54	3.10	3.66	>3.66	>3.89
CI	<11.64	<18.94	18.94	36.74	54.54	>54.54	>61.84

GOAL 1, Indicator 2, Measures d. Collective Dose

Approach:

The collective dose is calculated in accordance with DOE annual dose reporting requirements.

Assumptions:

1. The proposed average dose per worker is based only on those individuals who have exceeded 100 mrem during the calendar year.
2. The collective person-rem and average dose are affected by the level of research and other BNL activities. The initiation of new facilities/operations, or other significant changes (e.g., in dosimetry practices) may have a significant affect upon the collective dose. The affect on site dose of a new activity or change would be evaluated and reflected in the determination of the new target goal.
3. Rating levels for measures d. and e. will be based on a statistical deviation from the dose goal. The statistical distribution that will be used in performance rating will be determined prior to contract negotiations.

CY98 Performance Rating Levels:

Rating Level	Performance
Outstanding	90 person-rem
Excellent	105 person-rem
Good	120 person-rem
Marginal	135 person-rem
Unsatisfactory	150 person-rem

GOAL 1, Indicator 2, Measure e. Radioactive Contaminations

Approach:

Numerical count of number of incidents of unplanned internal or external personnel contamination.

Assumptions:

Rating levels for measure e. will be based on a statistical deviation from the target goal. The statistical distribution to be used in the performance rating will be determined prior to contract negotiations.

CY98 Performance Rating Levels:

Note: the Performance Rating is the number of events.

Rating Level	Performance
Outstanding	5 or less
Excellent	6-10
Good	11-15
Marginal	16-25
Unsatisfactory	25 or greater

GOAL 1, Indicator 3, Measure a. Solid Waste

This measurement is an indicator of the effectiveness of the material recycling and waste reduction efforts at BNL. This measure becomes more comprehensive and reflective of performance because while the amount of solid waste sent to the landfill is still measured, the measure methodology is changing to be more comprehensive and consider the amount of material recycled. Since the percent recycled measure is less sensitive to changes in overall site activity, it will be a more accurate reflection of the recycling and waste generation activities, and not be skewed by a spike in either category.

Approach:

Solid waste generated at BNL is either recycled (white/computer paper; mixed paper; cardboard; bottles/cans; tires) or sent to the Brookhaven Town Landfill for disposal (putrescibles; animal waste). The quantities (by weight) of solid waste (in various waste streams) recycled and disposed of at the Brookhaven Town Landfill will be measured.

$$\text{Percent recycled} = \frac{\text{Total tons of solid waste recycled}}{\text{Total tons of solid waste generated}}$$

Assumptions:

1. The percent recycled measure is less sensitive to overall site activity and program changes than the former measure – tons of waste sent to the Brookhaven Town Landfill.
2. Measure excludes construction debris (which is normally recycled). The construction debris waste stream varies significantly with annual variations in construction funding and type of construction activity.
3. Measure excludes hazardous or radioactive wastes.
4. Largest solid waste reduction due to recycling has already occurred.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	**More than 35.0%**
Excellent	**30.0-34.9%**
Good	**25.0-29.9%**
Marginal	**20.0-24.9%**
Unsatisfactory	**Less than 19.9%**

GOAL 1, Indicator 3, Measure b. Hazardous, Radioactive, and Mixed Waste Generated

DOE has established pollution prevention goals on a Department-wide basis. The goals vary for each of the 3 areas – hazardous, mixed and radioactive.

Approach:

The quantities of hazardous, mixed, and radioactive waste generated each year will be calculated using the following *Methodology for Determining Pollution Prevention Goals* and assumptions:

Waste Type	FY93 Base-line	FY95	% Reduction or Gain	FY96	% Reduction or Gain	FY97	% Reduction Goal	FY98	% Reduction Goal
Radioactive (cubic feet)	14,970	11,519	23.0%	15,551	(3.8%)		5%		10%
Mixed (lbs.)	4,349	2,263	47.9%	1,696	61.0%		65%		68%
Hazardous (tons)	67.0	34.1	49.1%	32.3	51.8%		55%		60%

*Percentage reductions (gains) are relative to the FY 1993 baseline.

Assumptions:

1. Only waste from 'routine operations is tracked for this purpose. Construction/demolition wastes, restoration wastes, newly identified wastes, legacy waste, legacy/newly identified spills, PCB waste, lead painted debris, lead shielding and other wastes determined to be 'non-routine, with concurrence by DOE, will not be included.

2. Sufficient funds will be available for performance of pollution prevention opportunity assessments (PPOAs) and implementation of feasible options.
3. Any actual or anticipated significant change in workloads will be brought to the attention of DOE as soon as possible and an appropriate change is to be made to these goals.
4. "Significant," is defined as greater than 10% to allow for uncertainties related to standard deviation due to inadequate baseline data.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	Achieve the reduction goals in all three waste streams, exceed goal significantly for at least one waste stream.
Excellent	Achieve the reduction goals for all three waste streams.
Good	Achieve reduction goals for two waste streams, no significant increase for other waste streams.
Marginal	Achieve reduction goal for one waste stream, no significant increase for other two waste streams.
Unsatisfactory	Fail to achieve reduction goals for all three waste streams.

GOAL 2, Indicator 1, Measures a.-f.

Approach:

For each measure under Indicator 1, the Performance Rating Levels are based upon the Malcolm Baldrige Scoring System, specifically, the evaluation dimension for Approach/Deployment.

Assumptions:

1. Contractor has developed and gained approval from DOE for its implementation plan, as required by DOE policy.
2. Contractor is required to have fully implemented ISMS program (100%) by the end of the 3rd year of the contract.

3. For FY98, only three performance levels are identified. The "outstanding" level of performance was established as that level which represents a clear indication of improvement trends and/or good levels of performance in the principal results areas for each measure. According to the Baldrige Scoring System, this is the 50% level. A "good" rating was correspondingly established as 30-50% success, with less than 30% success set as "unsatisfactory."
4. For FY99, 75% success will be established as the "outstanding" rating, and 100% success will be required for FY00.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	A sound, systematic approach, responsive to the primary purposes of the system; a fact-based improvement process in place in key areas; more emphasis is placed on improvement than on reaction to problems; no major gaps in deployment, though some areas or work units may be in very early stages of deployment.
Good	Beginning of the systematic approach to the primary purposes of the system; early stages of a transition from reacting to problems to a general improvement orientation; major gaps exist in deployment that would inhibit progress in achieving the primary purposes of the system.
Unsatisfactory	No systematic approach evident; anecdotal information only.

GOAL 3, Indicator 1, Measure a. Employee concerns acknowledged.

Approach:

$$\text{Performance Level} = \frac{\text{Number of concerns Acknowledge w/in 48 hours}}{\text{Total Number of Concerns}}$$

Assumptions:

1. Employee concern system in place and workers aware of rights and process.
2. Time period begins with formal filing of concern as defined by procedure and ends with formal notification of employee involved or his/her supervisor.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	100% within 48 hours
Good	75% within 48 hours, and 100% within 96 hours.
Unsatisfactory	Less than 75% within 48 hours; or any in excess of 96 hours.

GOAL 3, Indicator 1, Measure b. Employee surveys to develop baseline in terms of employee concern management.

Develop and implement in FY98 an employee survey to obtain a baseline understanding regarding employee concern management.

Approach:

1. Random survey of laboratory with all categories of workers participating.
2. Survey conducted by an organization to be determined with DOE concurrence (may be internal or external).
3. Survey provides for anonymous response.
4. A subset should include workers who have filed concerns.

Assumptions:

1. DOE will approve survey protocol prior to initiation.
2. Contractor will use baseline for expanding performance measure in FY99.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	Survey completed, results tabulated and assessed, plan developed to revise program as required
Excellent	Survey completed, results tabulated and assessed
Good	Survey developed and distributed
Unsatisfactory	Survey not distributed

GOAL 3, Indicator 2, Measure a. Mechanism for Worker Involvement in Task Development and Work Planning.

Approach: (See ES&H Goal 2)

Assumptions:

1. Contractor has developed and gained approval from DOE for its worker involvement program as part of its Integrated Safety Management System implementation plan approval, as required by DOE policy.
2. For FY98, only three performance levels are identified. The "outstanding level of performance was established as that level which represents a clear indication of improvement trends and/or good levels of performance in the principal results areas for each measure. According to the Baldrige Scoring System, this is the 50% level. A "good" rating was correspondingly established as 30-50% success, with less than 30% success set as "unsatisfactory."
3. For FY99, 75% success will be established as the "outstanding" rating, and 100% success will be required for FY00, corresponding to DOE's expectation that Contractor will have a fully implemented ISMS program (100%) by the end of FY00.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	A sound, systematic approach, responsive to the primary purposes of the system; a fact-based improvement process in place in key areas; more emphasis is placed on improvement than on reaction to problems; no major gaps in deployment, though some areas or work units may be in very early stages of deployment.
Good	Beginning of the systematic approach to the approach to the primary purposes of the system; early stages of a transition from reacting to problems to a general improvement orientation; major gaps existing deployment that would inhibit progress in achieving the primary purposes of the system.
Unsatisfactory	No systematic approach evident; anecdotal information only.

GOAL 3, Indicator 2, Measure b. Survey for Employee Involvement in ES&H Planning.

Approach: (See Goal 3, Indicator 1, Measure c.)

Assumptions: (See Goal 3, Indicator 1, Measure c.)

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	75-100% of respondents favorable
Good	50-75% of respondents favorable
Unsatisfactory	Less than 50% respondents favorable

III. COMMUNICATIONS AND TRUST

The metrics for the Communications and Trust performance measures are set forth below. Performance goals will be revised to reflect DOE-wide and BNL-specific community involvement benchmarking and baselining initiatives, and Contractor performance.

Goal 1, Indicator 1, Measure a: Achieve completed submission of Strategic Communications Plan.

Approach:

In order to proceed forward with milestones related to the Plan, the plan must be in place. This measure looks at completion date of the approved plan.

Assumptions:

This measure assumes the following schedule:

- Revised Draft Plan to DOE on or before April 6, 1998
- DOE comments submitted to BNL on or before April 13, 1998
- Final Plan to DOE on April 30, 1998

This measure also assumes the redevelopment of the Plan in late FY 98 for submission to DOE for the use in FY 99.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	Final Plan submitted to DOE on or before 4/16/98
Excellent	Final Plan submitted to DOE on or before 4/23/98
Good	Final Plan submitted to DOE on or before 4/30/98
Marginal	Final Plan submitted to DOE on or before 5/7/98
Unsatisfactory	Final Plan submitted to DOE after 5/7/98

Goal 1, Indicator 1, Measure b: Achievement of significant goals and/or milestones as identified in the DOE-approved Strategic Communications Plan for the performance period.

Approach:

The number of missed or late FY milestones will be subtracted from the total number of FY planned milestones. The difference will be divided by the total number of FY milestones and multiplied by 100 to determine the percentage of milestones achieved.

Assumptions:

1. DOE will approve the Strategic Communications Plan developed. DOE approval of the plan will include a list of significant milestones.
2. DOE-directed work scope and/or schedule changes will require a reevaluation of milestones.
3. Plans will be written or revised annually to reflect changing priorities and initiatives and prior year performance.
4. Communication and community involvement plans shall be developed to document goals, strategies, and activities that will be undertaken each year.
5. The revised plan for FY 99 shall be developed and submitted to DOE by September 1, 1998. This is regardless of whether or not the survey results are received and analyzed. DOE shall review and comment back to BNL by September 14, 1998. The final plan will be submitted to DOE by September 30, 1998.
6. If the results of the external stakeholder survey have not been received back and analyzed by the above date, then the plan shall be resubmitted one month after the analysis of data is completed.

FY98 Performance Rating Levels:

Rating Levels	Performance - % Milestones Achieved
Outstanding	95 to 100%
Excellent	90 to 95%
Good	80 to 90%
Marginal	70 to 80%
Unsatisfactory	Less than 70%

Goal 1, Indicator 2, Measure a: Establishment of a Laboratory Community Involvement policy that is acceptable to external stakeholders and DOE.

Assumptions: The Contract calls for the development and implementation of a Community Involvement Policy in a timely fashion to begin the necessary

changes to integrate community involvement criteria into Laboratory management culture.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	Policy developed with community input and submitted to DOE within 60 days (May 1, 1998) of contract takeover
Excellent	Policy developed with community input and submitted to DOE within 90 days (June 1, 1998) of contract takeover
Good	Policy developed with community input and submitted to DOE within 120 days (July 1, 1998) of contract takeover
Marginal	Policy developed without community input or in excess of 120 days
Unsatisfactory	Policy not developed or not delivered

Goal 1, Indicator 2, Measure b: Approach document for development of the community involvement plan in fiscal year 1999.

Approach:

The development of a lab-wide community involvement plan, based on the Community Involvement Policy, is a long-term multi-faceted project. The first step in preparing this plan will require the development of an approach document. The approach document will lay out a conceptual design for the development of a community involvement plan and will be key in defining appropriate tasks and assignments.

Assumptions:

DOE will approve the areas to be included in the approach document and approach outline.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	Approach document developed and submitted to DOE by 7/1/98
Excellent	Approach document developed and submitted to DOE by 8/1/98
Good	Approach document developed and submitted to DOE by 8/15/98
Marginal	Approach document developed and submitted to DOE by 9/1/98
Unsatisfactory	Approach document developed and submitted to DOE after 9/1/98

Goal 1, Indicator 2, Measure c: Develop an approach document for a management system to address funding requests; issues; concerns; and how BNL responds to outside inquiry.

Approach:

Develop a Management System framework for:

- Requests for information and/or participation;
- Issues and concerns;
- How the Laboratory responds in a systematic way.

The development of a comprehensive management system to complete the desired tasks will be difficult. The development of this conceptual framework will be key to defining appropriate tasks and assignments.

Assumptions:

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	Approach document developed and submitted to DOE by 8/1/98
Excellent	Approach document developed and submitted to DOE by 9/1/98
Good	Approach document developed and submitted to DOE by 9/15/98
Marginal	Approach document developed and submitted to DOE by 10/1/98
Unsatisfactory	Approach document developed and submitted to DOE after 10/1/98

Goal 1, Indicator 2, Measure d: Establishment and support of a Community Advisory Council (CAC).

Approach:

The establishment of a CAC will involve working with the US Department of Energy and outside organizations, including but not limited to the Brookhaven Executive Roundtable, to identify, recruit, and secure the participation of internal and external stakeholders. It will also involve working with the CAC to establish a charter and ground rules. The critical ongoing responsibility will be the support and facilitation of information exchange between the CAC and BNL.

Assumptions:

BNL announces its intention to establish a CAC at the BER meeting on April 21, 1998.

FY98 Performance Rating Levels:

Rating Levels	Performance
Outstanding	BNL announces its intention to establish a CAC at the 4/21/98 BER meeting; a CAC membership list is established; at least one meeting held; and a draft charter and draft ground rules are submitted to the CAC.
Good	Demonstrated systematic readiness to establish and participate with the CAC (as described above).
Unsatisfactory	Failure to establish and/or support a CAC.

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.

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 - CONTRATOR 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	CRD - 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 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
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
9/29/95 10/26/95	O 425.1 Change 1	CRD - STARTUP AND RESTART OF NUCLEAR FACILITIES
8/24/95 10/26/95	O 430.1 Change 1	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
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
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
1/9/98	M 471.2-1A	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)
5/8/98	M 475.1-1	CRD - INDENTIFYING CLASSIFIED INFORMATION
9/30/96	O 481.1	CRD - WORK FOR OTHERS (NON DOE FUNDED WORK)

DIRECTIVES LIST		
DATE	DOE DIRECTIVE NUMBER	SUBJECT TITLE
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
5/14/92	3220.6A	FEDERAL LABOR STANDARDS
8/23/82	3830.1	POLICIES AND PROCEDURES FOR PENSION PROGRAM UNDER OPERATING AND ONSITE SERVICE CONTRACTS
6/12/92	3890.1A	CONTRACTOR INSURANCE AND OTHER HEALTH BENEFIT PROGRAMS
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

*See Part II, Partial Deletions

DIRECTIVES LIST		
DATE	DOE DIRECTIVE NUMBER	SUBJECT TITLE
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
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
1/15/93	5480.29	EMPLOYEE CONCERNS MANAGEMENT SYSTEM
1/19/93	5480.30	NUCLEAR REACTOR SAFETY DESIGN CRITERIA
9/23/86 11/18/91	5482.1B Change 1	ENVIRONMENT, SAFETY, AND HEALTH APPRAISAL PROGRAM
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
6/23/92	5630.12A*	SAFEGUARDS AND SECURITY INSPECTION AND ASSESSMENT PROGRAM
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
8/21/91 5/10/96	5700.6C Change 1	QUALITY ASSURANCE
5/18/92	5700.7C	WORK AUTHORIZATION SYSTEM
9/26/88	5820.2A	RADIOACTIVE WASTE MANAGEMENT

***See Part II, Partial Deletions**

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

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)
6/23/92	5630.12A	SAFEGUARDS AND SECURITY INSPECTION AND ASSESSMENT PROGRAM	O 231.1 9/30/95 Change 1 10/26/95	Paras 7c(6), 7c(7) (a), 7c(8) (a), 7g(8) (f)
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

CONTRACT MODIFICATION M020
BROOKHAVEN SCIENCE ASSOCIATES, LLC
CONTRACT NO. DE-AC02-98CH10886

MOD NO.	INCREASED AMOUNT	REMARKS
A018	$226,547,792.88	
A019	$21,721,982.83	

TOTAL	**$248,269,775.71**	

CONTRACT MODIFICATION M020
BROOKHAVEN SCIENCE ASSOCIATES, LLC
CONTRACT NO. DE-AC02-98CH10886

Current BSA Contract Amount (Thru Mod. M017, incl.)	**$448,327,859.25**
Increased amount (Modification A018 thru A019)	**$248,269,775.71**
New Contract Total	**$696,597,634.96**