

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 4 PAGES
2. AMENDMENT/MODIFICATION NUMBER 0209	3. EFFECTIVE DATE See Block 16c	4. REQUISITION/PURCHASE REQUISITION NUMBER	5. PROJECT NUMBER (If applicable) 06005	
6. ISSUED BY SC Consolidated Service Center Office of Science U.S. Department of Energy 9800 South Cass Avenue	CODE 892430	7. ADMINISTERED BY (If other than Item 6) Brookhaven Site Office Office of Science U.S. Department of Energy 53 Bell Avenue Building 464		
8. NAME AND ADDRESS OF CONTRACTOR (Number, street, county, State and ZIP Code) Brookhaven Science Associates, LLC Attn: Janine Mehlinger Brookhaven National Laboratory Building 460, PO Box 5000 Upton NY 11973-5000		(X)	9A. AMENDMENT OF SOLICITATION NUMBER	
CODE 027579460 FACILITY CODE N/A		<input type="checkbox"/>	9B. DATED (SEE ITEM 11)	
		(X)	10A. MODIFICATION OF CONTRACT/ORDER NUMBER DE-SC0012704	
			10B. DATED (SEE ITEM 13) 12/22/2014	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

N/A

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NUMBER AS DESCRIBED IN ITEM 14.


CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NUMBER IN ITEM 10A.
<input type="checkbox"/>	
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input checked="" type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a), Mutual agreement of the parties.
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

See pages 2-4.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Susan McKeon, Chief Financial Officer	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Fausto R. Fernandez, Contracting Officer
15B. CONTRACTOR/OFFEROR Susan McKeon Digitally signed by Susan McKeon Date: 2022.04.22 16:09:56 -04'00'	16B. UNITED STATES OF AMERICA  Digitally signed by FAUSTO FERNANDEZ Date: 2022.04.25 11:28:23 -04'00'
15C. DATE SIGNED 04/22/2022	16C. DATE SIGNED 04/25/2022
(Signature of person authorized to sign)	(Signature of Contracting Officer)

Previous edition unusable

14. DESCRIPTION OF AMENDMENT/MODIFICATION continued.

A. This modification is issued to update the following contract section:

- a. Part I, Section H. Special Contract Requirements
 - H.21
- b. Part II, Section I—Contract Clauses
 - I.139 – DEAR 970.5227-3
 - I.144 – DEAR 970.5227-10
- c. Part III—List of Documents, Exhibits, Attachments – Section J
 - Appendix H
 - Appendix I

B. Table of Changes

PART I, SECTION H — SPECIAL CONTRACT REQUIREMENTS

Clause No.	Title	Change & Explanation
H.21	Employee Compensation: Pay and Benefits	<p>Change: Revise clause on contractual requirements related to the Employee Compensation: Pay and Benefits Corporate H Clause, and to require Heads of Contracting Activities to establish local procedures to manage newly implemented flexibilities.</p> <p>Explanation: This clause is revised IAW PF 2022-15, Revisions to the Employee Compensation: Pay and Benefits Corporate H Clause dated December 16, 2021, and SC-Policy Guidance 2022-01, New SC Model Employee Compensation: Pay and Benefits Corporate H Clauses dated April 11, 2022.</p>

PART II, SECTION I — CONTRACT CLAUSES

Clause No.	Title	Change & Explanation
I.139	DEAR 970.5227-3, Technology Transfer Mission (Aug 2019) (Alternate I) (Aug 2002) (Deviation) (2021)	<p>Description of Change: Amend the clause to add new language authorized by the S&E DEC to the DEAR solicitation provisions and contract clauses that have technology transfer as part of the mission of the contract for contracts subject to the “Department of Energy Determination of Exceptional Circumstances under the Bayh-Dole Act to Further Promote Domestic Manufacture of DOE</p>

		<p>Science and Energy Technologies“ (S&E DEC) issued June 7, 2021.</p> <p>Explanation: This clause is updated IAW to the prime contract IAW PF 2022-20 Class Deviation for Revised DEAR Solicitation Provisions and Contract Clauses for Technology Transfer dated January 18, 2022, and AL-2022-01, Class Deviation for Revised DEAR Solicitation Provisions and Contract Clauses for Technology Transfer dated January 18, 2022.</p>
I.144	<p>DEAR 970.5227-10, Patent Rights - Management and Operating Contracts, Nonprofit Organization or Small Business Firm Contractor (Dec 2000) (Deviation) (2021)</p>	<p>Description of Change: Amend the clause to add new language authorized by the S&E DEC to the DEAR solicitation provisions and contract clauses that have technology transfer as part of the mission of the contract for contracts subject to the “Department of Energy Determination of Exceptional Circumstances under the Bayh-Dole Act to Further Promote Domestic Manufacture of DOE Science and Energy Technologies“ (S&E DEC) issued June 7, 2021.</p> <p>Explanation: This clause is updated IAW to the prime contract IAW PF 2022-20 Class Deviation for Revised DEAR Solicitation Provisions and Contract Clauses for Technology Transfer dated January 18, 2022, and AL-2022-01, Class Deviation for Revised DEAR Solicitation Provisions and Contract Clauses for Technology Transfer dated January 18, 2022.</p>

PART III, SECTION J — LIST OF DOCUMENTS, EXHIBITS, ATTACHMENTS

Appendix	Title	Change & Explanation
H	Small Business Subcontracting Plan	<p>Change: Revise FY 2022 Plan.</p> <p>Explanation: This appendix is revised to update the FY 2022 plan goals IAW DOE Memorandum from Ron Pierce, Director, OSDBU, Subject: Set-aside Request and Fiscal Year 2022 DOE/NNSA Small and Disadvantaged Business Utilization dated March 16, 2022.</p>
I	DOE Directives/List B	<p>Change: Update the following directives: 150.1B</p>

		205.1C 243.1C 422.1 Chg. 4 (Ltd.Chg.) – Revised the compliance note. 471.7 Explanation: This appendix is replacing the prior version with the attached Appendix I identified as Modification No. 0202.
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C. ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

END OF MODIFICATION

CLAUSE H.21 – EMPLOYEE COMPENSATION: PAY AND BENEFITS

(a) Contractor Employee Compensation System

The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system consistent with FAR 31.205-6 and DEAR 970.3102-05-6; "Compensation for Personal Services". DOE-approved standards, if any, shall be applied to the Total Compensation System. The Contractor's Total Compensation System shall be fully documented, consistently applied, and acceptable to the Contracting Officer. Periodic appraisals of contractor performance with respect to the Contractors' Total Compensation System will be conducted. Costs incurred in implementing the Total Compensation System shall be consistent with the Contractor's documented Contractor Employee Compensation Plan as approved by the Contracting Officer.

- (1) The description of the Contractor Employee Compensation Program should include the following components;
 - (A) Philosophy and strategy for all pay delivery programs.
 - (B) System for establishing a job worth hierarchy.
 - (C) Method for relating internal job worth hierarchy to external market.
 - (D) System that links individual and/or group performance to compensation decisions.
 - (E) Method for planning and monitoring the expenditure of funds.
 - (F) Method for ensuring compliance with applicable laws and regulations.
 - (G) System for communicating the programs to employees.
 - (H) System for internal controls and self-assessment.
 - (I) System to ensure that reimbursement of compensation, including stipends, for employees who are on joint appointments with a parent or other organization shall be on a pro-rated basis.

(b) Reports and Information

The Contractor shall provide the Contracting Officer with the following reports and information with respect to pay and benefits provided under this Contract:

- (1) An Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special adjustments, and structure movements for each pay structure showing actual against approved

amounts and planned distribution of funds for the following year.

- (2) A list of the top five most highly compensated executives as defined in FAR 31.205-6(p)(4)(ii) and their total cash compensation at the time of Contract award, and at the time of any subsequent change to their total cash compensation.
- (3) An Annual Compensation and Benefits Report no later than March 15 of each year.

(c) Pay and Benefit Programs

The Contractor shall maintain pay and benefit programs for its employees; provided, however, that employees scheduled to work fewer than 20 hours per week receive only those benefits required by law. Employees are eligible for benefits, subject to the terms, conditions, and limitations of each benefit program.

(1) Cash Compensation

(A) The Contractor shall submit the following, as applicable, to the Contracting Officer for a determination of cost allowability for reimbursement under the Contract:

- (i) Any proposed major compensation program design changes prior to implementation.
- (ii) Variable pay programs/incentives. If not already authorized under Appendix A of the contract, a justification shall be provided with proposed costs and impacts to budget, if any.
- (iii) A Compensation Increase Plan (CIP). A Contractor that meets the criteria, as set forth below, is not required to submit a CIP request to the Contracting Officer for an advance determination of cost allowability for a Merit Increase fund or Promotion/Adjustment fund unless Departmental policy exists to the contrary (.e.g. Secretarial Pay freeze):

- (1) The Merit Increase fund does not exceed the mean percent increase included in the annual Departmental guidance providing the WorldatWork Salary Budget Survey's salary increase projected for the CIP year. The Promotion/Adjustment fund does not exceed 1% percent in total.
- (2) The budget used for both Merit Increase funds and Promotion/Adjustment funds shall be based on the payroll for the end of the previous CIP year.
- (3) Salary structure adjustments do not exceed the mean WorldatWork structure adjustments projected for the CIP year

and communicated through the annual Department CIP guidance.

Please note: No later than the first day of the CIP cycle, Contractors must provide notification to the Contracting Officer of planned increases and position to market data by mutually agreed-upon employment categories.

- (iv) If a Contractor does not meet the criteria included in (iii) above, a CIP must be submitted to the Contracting Officer for an advance determination of cost allowability, unless the Contracting Officer, in accordance with subparagraph (m) obtains an audit of the Contractor's compensation and benefits system and of its incurred costs from either DCAA, or an independent public accounting firm under the DOE contract for such services.

Otherwise, the CIP should include the following components and data:

- (1) Market analysis summary, including a comparison of average pay to market average pay.
- (2) Information regarding surveys used for comparison.
- (3) Aging factors used for escalating survey data and supporting information.
- (4) Projection of escalation in the market and supporting information.
- (5) Information to support proposed structure adjustments, if any.
- (6) Analysis to support special adjustments or promotions that exceed the 1% Promotion/Adjustment fund authorized under Section 3, titled Compensation of Appendix A.
- (7) Funding requests for each pay structure to include breakouts of merit, promotions, variable pay, special adjustments, and structure movement for each Employee Group (i.e., S&E, Administrative, Technical, Exempt/Non-Exempt). (a) The proposed plan totals shall be expressed as a percentage of the payroll for the end of the previous CIP year. (b) All pay actions granted under the compensation increase plan are fully charged when they occur regardless of time of year in which the action transpires and whether the employee terminates before year end. (c) Specific payroll groups (e.g., exempt, nonexempt) for which CIP amounts are intended shall be defined by mutual agreement between the Contractor and the Contracting Officer. (d) The Contracting Officer may adjust the CIP amount after approval based on major changes in factors that significantly

affect the plan amount (for example, in the event of a major reduction in force or significant ramp-up).

- (8) A discussion of the impact of budget and business constraints on the CIP amount.
 - (9) Comparison of pay to relevant factors other than market average pay.
 - (10) Discussion of recruitment/retention issues (e.g., turnover and hiring) relevant to the proposed increase amounts.
- (v) The Contractor may make, without CO Approval, minor shifts of merit funds between Merit and Promotion/Adjustment funds after approval of the CIP or if criteria under (c)(1)(A)(iii) was met, in order to meet the compensation requirements of its organization, subject to the following guidelines:
- (1) Minor shift is defined as up to 25% of the specific fund from which funds are being transferred, the contractor may, with CO approval, shift additional funds in justified instances.
 - (2) Contractors will notify the Contracting Officer that funds have been shifted.
- (vi) Individual compensation actions for the top contractor official (e.g., laboratory director/plant manager or equivalent) and Key Personnel not included in the CIP. For those Key Personnel included in the CIP, DOE will approve salaries upon the initial contract award and when Key Personnel are replaced during the life of the contract. DOE will have access to all individual salary reimbursements. This access is provided for transparency; DOE will not approve individual salary actions (except as previously stated).
- (B) The Contracting Officer's approval of individual compensation actions will be required only for the top contractor official (e.g., laboratory director/plant manager or equivalent) and Key Personnel as stated in (c)(1)(A)(vi) above. The base salary reimbursement level for the top contractor official establishes the maximum allowable salary reimbursement under the contract. The contractor shall not be reimbursed for the top contractor official's incentive compensation. The base salary reimbursement level for the top contractor official establishes the maximum allowable salary reimbursement under the contract when compared to subordinate compensation, which would include base salary and any potential incentive compensation under an incentive compensation agreement. Unusual circumstances may require a deviation for an individual on a case-by-case basis. Any such deviations must be approved by the Contracting Officer.

- (C) Severance Pay is not payable to an employee under this Contract if the employee:
 - (i) Voluntarily separates, resigns or retires from employment, (unless associated with a workforce restructuring action in accordance with Appendix A, Section entitled Reductions in Contractor Employment)
 - (ii) Is offered employment with a successor/replacement Contractor,
 - (iii) Is offered employment with a parent or affiliated company, or
 - (iv) Is discharged for cause.
- (D) Service Credit for purposes of determining severance pay does not include any period of prior service for which severance pay has been previously paid through a DOE cost-reimbursement contract.

(d) Pension and Other Benefit Programs

- (1) No presumption of allowability will exist when the Contractor implements a new benefit plan, or makes changes to existing benefit plans, and the Contractor has not provided the Contracting Officer the opportunity to review the allowability of the changes prior to implementation. The Contractor shall submit for prior approval any benefit plan changes not associated with pensions that result in increases in costs if the value of the change is \$250,000 or greater. Notification is only necessary for those benefit plan changes (excluding pension changes) valued at \$250,000 or less. The Contractor shall submit for prior approval benefit changes that result in increases to the Department's long-term pension and other actuarial liabilities that are reported in the Department's financial statement, including increases in employer contributions for defined contribution pension plans regardless of dollar value. Examples of benefits changes that increase the Department's long-term liabilities include defined benefit pension plan changes and postretirement benefits other than pensions. Any changes made by the Contractor shall be in accordance with and pursuant to the terms and conditions of the contract. Advance notification, rather than approval, is required for changes that do not increase costs and are not contrary to Departmental policy or written instruction.
- (2) Cost reimbursement for Employee pension and other benefit programs sponsored by the Contractor will be based on the Contracting Officer's approval of Contractor actions pursuant to an approved "Employee Benefits Value Study" and an "Employee Benefits Cost Survey Comparison" as described below, unless the Contracting Officer, in accordance with subparagraph (m) obtains an audit of the Contractor's compensation and benefits system and of its incurred costs from either DCAA, or from DOE's independent public accounting firm (under contract with DOE).

- (3) Unless otherwise stated, or as directed by the Contracting Officer, the Contractor shall submit the studies required in paragraphs (A) and (B) below. The studies shall be used by the Contractor in calculating the cost of benefits under existing benefit plans. An Employee Benefits Value (Ben-Val) Study Method using no less than 15 comparator organizations and an Employee Benefits Cost Survey comparison Method shall be used in this evaluation to establish an appropriate comparison method. In addition, the Contractor shall submit updated studies to the Contracting Officer for approval prior to the adoption of any change to a pension or other benefit plan which increases costs.
 - (A) The Ben-Val, every three years for each benefit tier (e.g., group of employees receiving a benefit package based on date of hire), which is an actuarial study of the relative value (RV) of the benefits programs offered by the Contractor to Employees measured against the RV of benefit programs offered by the Contracting Officer approved comparator companies. To the extent that the value studies do not address post retirement benefits other than pensions, the Contractor shall provide a separate cost and plan design data comparison for the post retirement benefits other than pensions using external benchmarks derived from nationally recognized and Contracting Officer approved survey sources.
 - (B) An Employee Benefits Cost Study Comparison, annually for each benefit tier that analyzes the Contractor's employee benefits cost for Employees as a percent of payroll and compares it with the cost as a percent of payroll, including geographic factor adjustments, reported by the U.S. Department of Labor's Bureau of Labor Statistics or other Contracting Officer approved broad based national survey. Alternatively, in accordance with subparagraph (m) the Contracting Officer may obtain an audit of the Contractor's compensation and benefits system and of its incurred costs from either DCAA or from DOE's independent public accounting firm (under contract with DOE), and not require the submission of an Employee Benefits Cost Study.
- (4) When the net benefit value exceeds the comparator group by more than the percentage threshold established by the Head of the Contracting Activity the Contractor shall submit a corrective action plan to the Contracting Officer for approval, when and if requested in writing by the Contracting Officer.
- (5) When the benefit costs as a percent of payroll exceed the comparator group by more than the percentage threshold established by the Head of the Contracting Activity, when and if required by the Contracting Officer, the Contractor shall submit an analysis of the specific plan costs that result in or contribute to the percent of payroll exceeding the costs of the comparator group and submit a corrective action plan if directed by the Contracting Officer.
- (6) Within two years, or longer period as agreed to between the Contractor and the Contracting Officer, of Contracting Officer acceptance of the Contractor's corrective

action plan, the Contractor shall align employee benefit programs with the benefit value and cost as percent of payroll in accordance with its corrective action plan.

- (7) The Contractor may not terminate any benefit plan during the term of the Contract without the prior approval of the Contracting Officer in writing.
- (8) Cost reimbursement for post-retirement benefits other than pensions (PRBs) is contingent on DOE approved service eligibility requirements for PRB that shall be based on a minimum period of continuous employment service not less than 5 years under a DOE cost reimbursement contract(s) immediately prior to retirement. Unless required by Federal or State law, advance funding of PRBs is not allowable.
- (9) Each Contractor sponsoring a Defined Benefit pension plan and/or postretirement benefit plan will participate in the annual plan management process which includes written responses to a questionnaire regarding plan management, providing forecasted estimates of future reimbursements in connection with the plan(s) and participating in a conference call to discuss the Contractor submission (see (f)(6) below for Pension Management Plan requirements).
- (10) Each Contractor will respond to quarterly data calls issued through iBenefits, or its successor system.

(e) Establishment and Maintenance of Pension Plans for which DOE Reimburses Costs

- (1) Employees working for the Contractor shall only accrue credit for service under this Contract after the date of Contract award.
- (2) Except for Commingled Plans in existence as of the effective date of the Contract, any pension plan maintained by the Contractor for which DOE reimburses costs, shall be maintained as a separate pension plan distinct from any other pension plan that provides credit for service not performed under a DOE cost-reimbursement contract. When deemed appropriate by the Contracting Officer, Commingled Plans shall be converted to separate plans at the time of new contract award or the extension of a contract.

(f) Basic Requirements

The Contractor shall adhere to the requirements set forth below in the establishment and administration of pension plans that are reimbursed by DOE pursuant to cost reimbursement contracts for management and operation of DOE facilities and pursuant to other cost reimbursement facilities contracts. Pension Plans include Defined Benefit and Defined Contribution plans.

- (1) The Contractor shall become a sponsor of the existing pension and other benefit plans (or comparable successor plans), including other PRB plans, as applicable, with responsibility for management and administration of the plans. The Contractor shall be responsible for maintaining the qualified status of those plans consistent

with the requirements of ERISA and the Internal Revenue Code (IRC). The Contractor shall carry over the length of service credit and leave balances accrued as of the date of the Contractor's assumption of Contract performance.

- (2) Each Contractor defined benefit and defined contribution pension plan shall be subjected to a limited-scope audit annually that satisfies the requirements of ERISA section 103, except that every third year the contractor must conduct a full-scope audit of defined benefit plan(s) satisfying ERISA section 103. Alternatively, the contractor may conduct a full-scope audit satisfying ERISA section 103 annually. In all cases, the Contractor must submit the audit results to the Contracting Officer. In years in which a limited scope audit is conducted, the Contractor must provide the Contracting Officer with a copy of the qualified trustee or custodian's certification regarding the investment information that provides the basis for the plan sponsor to satisfy reporting requirements under ERISA section 104. While there is no requirement to submit a full scope audit for defined contribution plans, contractors are responsible for maintaining adequate controls for ensuring that defined contribution plan assets are correctly recorded and allocated to plan participants.
- (3) For existing Commingled Plans, the Contractor shall maintain and provide annual separate accounting of DOE liabilities and assets as for a Separate Plan.
- (4) For existing Commingled Plans, the Contractor shall be liable for any shortfall in the plan assets caused by funding or events unrelated to DOE contracts.
- (5) The Contractor shall comply with the requirements of ERISA if applicable to the pension plan and any other applicable laws.
- (6) The Pension Management Plan (PMP) shall include a discussion of the Contractor's plans for management and administration of all pension plans consistent with the terms of the Contract. The PMP shall be submitted in the iBenefits system, or its successor system no later than January 31st of each applicable year. A full description of the necessary reporting will be provided in the annual management plan data request. Within sixty (60) days after the date of the submission, appropriate Contractor representatives shall participate in a conference call to discuss the Contractor's PMP submission and any other current plan issues or concerns.

(g) Reimbursement of Contractors for Contributions to Defined Benefit Pension Plans

- (1) Contractors that sponsor single employer or multiple employer defined benefit pension plans will be reimbursed for the annual required minimum contributions under the Employee Retirement Income Security Act (ERISA), as amended by the Pension Protection Act (PPA) of 2006 and any other subsequent amendments. Reimbursement above the annual minimum required contribution will require prior approval of the Contracting Officer. Minimum required contribution amounts will

take into consideration all pre-funding balances and funding standard carryover balances. Early in the fiscal year but no later than the end of November, the Contractor requesting above the minimum may submit/update a business case for funding above the minimum if preliminary approval is needed prior to the Pension Management Plan process. The business case shall include a projection of the annual minimum required contribution and the proposed contribution above the minimum. The submission of the business case will provide the opportunity for the Department to provide preliminary approval, within 30 days after contractor submission, pending receipt of final estimates, generally after January 1st of the calendar year. Final approval of funding will be communicated by the Head of Contracting Activity (HCA) when discount rates are finalized and it is known whether there are any budget issues with the proposed contribution amount.

- (2) Contractors that sponsor multi-employer DB pension plans will be reimbursed for pension contributions in the amounts necessary to ensure that the plans are funded to meet the annual minimum requirement under ERISA, as amended by the PPA. However, reimbursement for pension contributions above the annual minimum contribution required under ERISA, as amended by the PPA, will require prior approval of the Contracting Officer and will be considered on a case by case basis. Reimbursement amounts will take into consideration all pre-funding balances and funding standard carryover balances. Early in the fiscal year but no later than the end of November, the Contractor requesting above the minimum may submit/update a business case for funding above the minimum if preliminary approval is needed prior to the Pension Management Plan process. The business case shall include a projection of the annual minimum required contribution and the proposed contribution above the minimum. The submission of the business case will provide the opportunity for the Department to provide preliminary approval, within 30 days after contractor submission, pending receipt of final estimates, generally after January 1st of the calendar year. Final approval of funding will be communicated by the HCA when discount rates are finalized and it is known whether there are any budget issues with the proposed contribution amount.

(h) Reporting Requirements for Designated Contracts

The following reports shall be submitted to DOE as soon as possible after the last day of the plan year by the Contractor responsible for each designated pension plan funded by DOE but no later than the dates specified below:

- (1) Actuarial Valuation Reports. The annual actuarial valuation report for each DOE-reimbursed pension plan and when a pension plan is commingled, the Contractor shall submit separate reports for DOE's portion and the plan total by the due date for filing IRS Form 5500.
- (2) Forms 5500. Copies of IRS Forms 5500 with Schedules for each DOE-funded pension plan, no later than that submitted to the IRS.

- (3) Forms 5300. Copies of all forms in the 5300 series submitted to the IRS that document the establishment, amendment, termination, spin-off, or merger of a plan submitted to the IRS.

(i) Changes to Pension Plans

At least sixty (60) days prior to the adoption of any changes to a pension plan, the Contractor shall submit the information required below to the Contracting Officer. The Contracting Officer must approve plan changes that increase costs as part of a determination as to whether the costs are deemed allowable pursuant to FAR 31.205-6, as supplemented by DEAR 970.3102-05-6.

- (1) For proposed changes to pension plans and pension plan funding, the Contractor shall provide the following to the Contracting Officer:
 - (A) a copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout;
 - (B) an analysis of the impact of any proposed changes on actuarial accrued liabilities and costs;
 - (C) except in circumstances where the Contracting Officer indicates that it is unnecessary, a legal explanation of the proposed changes from the counsel used by the plan for purposes of compliance with all legal requirements applicable to private sector defined benefit pension plans;
 - (D) the Summary Plan Description; and,
 - (E) any such additional information as requested by the Contracting Officer.
- (2) Contractors shall submit new benefit plans and changes to plan design or funding methodology with justification to the Contracting Officer for approval, as applicable [see (d)(1) above]. The justification must:
 - (A) demonstrate the effect of the plan changes on the contract net benefit value or percent of payroll benefit costs,
 - (B) provide the dollar estimate of savings or costs, and
 - (C) provide the basis of determining the estimated savings or cost.

(j) Terminating Operations

When operations at a designated DOE facility are terminated and no further work is to occur under the prime contract, the following apply:

- (1) No further benefits for service shall accrue.

- (2) The Contractor shall provide a determination statement in its settlement proposal, defining and identifying all liabilities and assets attributable to the DOE contract.
- (3) The Contractor shall base its pension liabilities attributable to DOE contract work on the market value of annuities or lump sum payments or dispose of such liabilities through a competitive purchase of annuities or lump sum payouts.
- (4) Assets shall be determined using the "accrual-basis market value" on the date of termination of operations.
- (5) DOE and the Contractor(s) shall establish an effective date for spinoff or plan termination. On the same day as the Contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

(k) Terminating Plans

- (1) DOE contractors shall not terminate any pension plan (Commingled or site specific) without requesting Departmental approval at least 60 days prior to the scheduled date of plan termination.
- (2) To the extent possible, the Contractor shall satisfy plan liabilities to plan participants by the purchase of annuities through competitive bidding on the open annuity market or lump sum payouts. The Contractor shall apply the assumptions and procedures of the Pension Benefit Guaranty Corporation.
- (3) Funds to be paid or transferred to any party as a result of settlements relating to pension plan termination or reassignment shall accrue interest from the effective date of termination or reassignment until the date of payment or transfer.
- (4) If ERISA or IRC rules prevent a full transfer of excess DOE reimbursed assets from the terminated plan, the Contractor shall pay any deficiency directly to DOE according to a schedule of payments to be negotiated by the parties.
- (5) On or before the same day as the Contractor notifies the IRS of the spinoff or plan termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.
- (6) DOE liability to a Commingled pension plan shall not exceed that portion which corresponds to DOE contract service. The DOE shall have no other liability to the plan, to the plan sponsor, or to the plan participants.
- (7) After all liabilities of the plan are satisfied, the Contractor shall return to DOE an amount equaling the asset reversion from the plan termination and any earnings which accrue on that amount because of a delay in the payment to DOE. Such

amount and such earnings shall be subject to DOE audit. To effect the purposes of this paragraph, DOE and the contractor may stipulate to a schedule of payments.

(l) Special Programs

Contractors must advise DOE and receive prior approval for each early-out program, window benefit, disability program, plan-loan feature, employee contribution refund, asset reversion, or incidental benefit.

(m) Alternate Contractor Human Resource Requirements

(1) Alternatively, the Contracting Officer may obtain an audit of the Contractor's compensation and benefits system and of its incurred costs from either DCAA or from DOE's independent public accounting firm (under contract with DOE); if the Contracting Officer does, the Contractor will not be required to submit the:

(A) Compensation Increase Plan; and/or

(B) Employee Benefits Cost Study.

(n) Definitions

(1) Commingled Plans. Cover employees from the Contractor's private operations and its DOE contract work.

(2) Current Liability. The sum of all plan liabilities to employees and their beneficiaries. Current liability includes only benefits accrued to the date of valuation. This liability is commonly expressed as a present value.

(3) Defined Benefit Pension Plan. Provides a specific benefit at retirement that is determined pursuant to the formula in the pension plan document.

(4) Defined Contribution Pension Plan. Provides benefits to each participant based on the amount held in the participant's account. Funds in the account may be comprised of employer contributions, employee contributions, investment returns on behalf of that plan participant and/or other amounts credited to the participant's account.

(5) Designated Contract. For purposes of this clause, a contract (other than a prime cost reimbursement contract for management and operation of a DOE facility) for which the Head of the Departmental Contracting Activity determines that advance pension understandings are necessary or where there is a continuing Departmental obligation to the pension plan.

(6) Pension Fund. The portfolio of investments and cash provided by employer and employee contributions and investment returns. A pension fund exists to defray pension plan benefit outlays and (at the option of the plan sponsor) the administrative expenses of the plan.

- (7) Separate Accounting. Account records established and maintained within a commingled plan for assets and liabilities attributable to DOE contract service.
NOTE: The assets so represented are not for the exclusive benefit of any one group of plan participants.
- (8) Separate Plan. Must satisfy IRC Sec. 414(l) definition of a single plan, designate assets for the exclusive benefit of employees under DOE contract, exist under a separate plan document (having its own Department of Labor plan number) that is distinct from corporate plan documents and identify the Contractor as the plan sponsor.
- (9) Spun-off Plan. A new plan which satisfies IRC Reg. 1.414 (l)-1 requirements for a single plan and which is created by separating assets and liabilities from a larger original plan. The funding level of each individual participant's benefits shall be no less than before the event, when calculated on a "plan termination basis."

**CLAUSE I.139 – DEAR 970.5227-3 – TECHNOLOGY TRANSFER MISSION (AUG 2002)
(DEVIATION) (AL-2022-01 CLASS DEVIATION) (JAN 2022)**

This clause has as its purpose implementation of the National Competitiveness Technology Transfer Act of 1989 (Sections 3131, 3132, 3133, and 3157 of Pub. L. 101–189 and as amended by Pub. L. 103–160, Sections 3134 and 3160). The Contractor shall conduct technology transfer activities with a purpose of providing benefit from Federal research to U.S. industrial competitiveness.

(a) *Authority.*

- (1) In order to ensure the full use of the results of research and development efforts of, and the capabilities of, the Laboratory, technology transfer, including Cooperative Research and Development Agreements (CRADAs), is established as a mission of the Laboratory consistent with the policy, principles and purposes of Sections 11(a)(1) and 12(g) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710a); Section 3132(b) of Pub. L. 101–189, Sections 3134 and 3160 of Pub. L. 103–160, and of Chapter 38 of the Patent Laws (35 U.S.C. 200 et seq.); Section 152 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2182); Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908); Section 102 of the Laboratory Modernization and Technology Transfer Act (Public Law 115-246) and Executive Order 12591 of April 10, 1987.
- (2) In pursuing the technology transfer mission, the Contractor is authorized to conduct activities including but not limited to: identifying and protecting intellectual property made, created or acquired at or by the Laboratory; negotiating licensing agreements and assignments for intellectual property made, created or acquired at or by the Laboratory that the Contractor controls or owns; bailments; negotiating all aspects of and entering into CRADAs; providing technical consulting and personnel exchanges; conducting science education activities and reimbursable Strategic Partnership Projects (SPP); providing information exchanges; and making available laboratory or weapon production user facilities. It is fully expected that the Contractor shall use all of the mechanisms available to it to accomplish this technology transfer mission, including, but not limited to, CRADAs, user facilities, SPP, science education activities, consulting, personnel exchanges, assignments, and licensing in accordance with this clause.
- (3) *Trademarks and service marks.* The Contractor, with notification to DOE Patent Counsel, is authorized to protect goods/services resulting from work at the Laboratory through Trademark and Service Mark protection. The Laboratory name and associated logos are owned by the Department of Energy unless an exception is allowed by the DOE Patent Counsel, and shall be protected by DOE Patent Counsel. In furtherance of the technology transfer mission, should the Contractor want to assert trademark or service mark protection for any word,

phrase, symbol, design, or combination thereof that includes or is associated with the Laboratory name, the Contractor must first notify and obtain permission from the Department of Energy Patent Counsel. All marks, whether or not registered with the United States Patent and Trademark Office, are to be included in the "Intellectual property rights" paragraph (i) of this clause, below, regarding transfer to successor contractor, DOE reserves the right to require the Contractor to cancel registration of the mark or cease use of the mark.

(b) *Definitions.*

Assignment means any agreement by which the Contractor transfers ownership of Laboratory Intellectual Property, subject to the Government's retained rights.

Bailment means any agreement in which the Contractor permits the commercial or non-commercial transfer of custody, access or use of Laboratory Biological Materials or Laboratory Tangible Research Product for a specified purpose of technology transfer or research and development, including without limitation evaluation, and without transferring ownership to the bailee.

Contractor's Laboratory Director means the individual who has supervision over all or substantially all of the Contractor's operations at the Laboratory.

Cooperative Research and Development Agreement (CRADA) means any agreement entered into between the Contractor as operator of the Laboratory, and one or more parties including at least one non-Federal party under which the Government, through its laboratory, provides personnel, services, facilities, equipment, intellectual property, or other resources with or without reimbursement (but not funds to non-Federal parties) and the non-Federal parties provide funds, personnel, services, facilities, equipment, intellectual property, or other resources toward the conduct of specified research or development efforts which are consistent with the missions of the Laboratory; except that such term does not include a procurement contract, grant, or cooperative agreement as those terms are used in sections 6303, 6304, and 6305 of Title 31 of the United States Code.

Department of Energy (DOE), as used in this clause, includes the National Nuclear Security Administration (NNSA), unless otherwise identified or indicated.

Intellectual property means data, inventions, patents, patent applications, trademarks, service marks, copyrights, mask works, protected CRADA information, and other forms of comparable property rights protected by Federal Law and other foreign counterparts.

Joint Work Statement (JWS) means a proposal for a CRADA prepared by the Contractor, signed by the Contractor's Laboratory Director or designee which describes the project.

Laboratory biological materials means biological materials capable of replication or reproduction, such as plasmids, deoxyribonucleic acid molecules, ribonucleic acid molecules, living organisms of any sort and their progeny, including viruses, prokaryote and eukaryote cell lines, transgenic plants and animals, and any derivatives or modifications thereof or products produced through their use or associated biological products, made under this contract by Laboratory employees or through the use of Laboratory research facilities.

Laboratory tangible research product means tangible material results of research which--

- (1) Are provided to permit replication, reproduction, evaluation or confirmation of the research effort, or to evaluate its potential commercial utility;
- (2) Are not materials generally commercially available; and
- (3) Were made under this contract by Laboratory employees or through the use of Laboratory research facilities.

Patent Counsel means the DOE or NNSA Patent Counsel assisting the contracting activity. The Patent Counsel is the first and primary point of contact for activities described in this clause.

Strategic Partnership Projects (SPP) means any agreement pursuant to the SPP clause, if included in this M&O contract, entered into between the Contractor as operator of the Laboratory and a non-Federal party under which the Government, through its laboratory, provides personnel, services, facilities, equipment, intellectual property, only when such work does not interfere with DOE-funded activities conducted as authorized by other parts of this M&O contract and on a fully reimbursable basis.

(c) *Allowable costs.*

- (1) The Contractor shall establish and carry out its technology transfer efforts through appropriate organizational elements consistent with the requirements for an Office of Research and Technology Applications (ORTA) pursuant to paragraphs (b) and (c) of Section 11 of the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710). The costs associated with the conduct of technology transfer through the ORTA including activities associated with obtaining, maintaining, licensing, and assigning intellectual property rights, increasing the potential for the transfer of technology, widespread notice of technology transfer opportunities, and early stage and precommercial technology demonstration to remove barriers that limit private sector interest and demonstrate potential commercial applications of any research and technologies arising from Laboratory activities, shall be deemed allowable provided that

such costs meet the other requirements of the allowable costs provisions of this contract.

- (2) The Contractor's participation in litigation to enforce or defend intellectual property claims incurred in its technology transfer efforts shall be as provided in the clause entitled "Insurance—Litigation and Claims" of this contract.
- (d) *Conflicts of interest—technology transfer.* The Contractor shall have implementing procedures that seek to avoid employee and organizational conflicts of interest, or the appearance of conflicts of interest, in the conduct of its technology transfer activities. These procedures shall apply to all persons participating in Laboratory research or related technology transfer activities. Such implementing procedures shall be provided to the Contracting Officer for review and approval within sixty (60) days after execution of this contract. The Contracting Officer shall have thirty (30) days thereafter to approve or require specific changes to such procedures. Such implementing procedures shall include procedures to:
- (1) Inform employees of and require conformance with standards of conduct and integrity in connection with research involving non-federal sponsors in accordance with the provisions of paragraph (n)(5) of this clause;
 - (2) Review and approve employee activities so as to avoid conflicts of interest arising from commercial utilization activities relating to contractor-developed intellectual property;
 - (3) Conduct work performed using royalties so as to avoid interference with or adverse effects on ongoing DOE projects and programs;
 - (4) Conduct activities relating to commercial utilization of contractor-developed intellectual property so as to avoid interference with or adverse effects on user facility or SPP activities of the Contractor
 - (5) Conduct DOE-funded projects and programs so as to avoid the appearance of conflicts of interest or actual conflicts of interest with non-Government funded work;
 - (6) Notify the Contracting Officer with respect to any new work to be performed or proposed to be performed under the contract for DOE or other Federal agencies where the new work or proposal involves intellectual property in which the Contractor has obtained or intends to request or elect title;
 - (7) Except as provided elsewhere in this contract, obtain the approval of the Contracting Officer for any licensing of or assignment of title to Intellectual Property rights by the Contractor to any business or corporate affiliate of the Contractor;

- (8) Obtain the approval of the Contracting Officer prior to any assignment, exclusive licensing, or option for exclusive licensing, of intellectual property to any individual who is a current or has been a Laboratory employee within the previous two years or to the company in which the individual is a principal and the Contractor's request should include notice of any technology transfer agreements (e.g., SPP and CRADA) associated with the intellectual property;
 - (9) Notify non-Federal sponsors of SPP activities, or non-Federal users of user facilities, of any relevant intellectual property interest of the Contractor prior to execution of SPP or user agreements; and
 - (10) Notify the Contracting Officer and DOE funding program prior to evaluating a proposal by a third party for DOE, when (a) the evaluator is an inventor of a Contractor invention that is the subject matter of the proposal or (b) the evaluator is a principal or has financial interest in the third party or (c) the third party is a licensee of the Contractor.
- (e) *Fairness of opportunity.* In conducting its technology transfer activities, the Contractor shall prepare procedures and take all reasonable measures to ensure widespread notice of availability of technologies suited for transfer and opportunities for exclusive licensing and joint research arrangements. The requirement to widely disseminate the availability of technology transfer opportunities does not apply to a specific application originated outside of the Laboratory and by entities other than the Contractor.
- (f) *U.S. industrial competitiveness for licensing and assignments of intellectual property.*
- (1) In the interest of enhancing U.S. Industrial Competitiveness, the Contractor shall, in its licensing and assignments of intellectual property, give preference in such a manner as to enhance the accrual of economic and technological benefits to the U.S. domestic economy. The Contractor shall consider the following factors in all of its licensing and assignment decisions involving Laboratory intellectual property where the Laboratory obtains rights during the course of the Contractor's operation of the Laboratory under this contract--
 - (i) Whether any resulting design and development will be performed in the United States and whether resulting products, embodying parts, including components thereof, will be substantially manufactured in the United States; and
 - (ii)
 - (A) Whether the proposed licensee or assignee has a business unit located in the United States and whether significant economic and technical benefits will flow to the United States as a result of the license or assignment agreement;

- (B) In licensing or assigning any entity subject to the control of a foreign company or government, whether such foreign government permits United States agencies, organizations or other persons to enter into cooperative research and development agreements and licensing agreements, and has policies to protect United States intellectual property rights;
 - (C) If the proposed licensee, assignee, or parent of either type of entity is subject to the control of a foreign company or government, the Contractor, with the assistance of the Contracting Officer, in considering the factors set forth in paragraph (B) of this clause, may rely upon the following information –
 - (1) U.S. Trade Representative Inventory of Foreign Trade Barriers;
 - (2) U.S. Trade Representative Special 301 Report; and
 - (3) Such other relevant information available to the Contracting Officer; and
 - (D) The Contractor should review the U.S. Trade Representative web site at: <http://www.ustr.gov> for the most current versions of these reports and other relevant information. The Contractor is encouraged to utilize other available resources, as necessary, to allow for a complete and informed decision.
- (2) If the Contractor determines that neither of the conditions in paragraphs (f)(1)(i) or (ii) of this clause are likely to be fulfilled, the Contractor, prior to entering into such an agreement, must obtain the approval of the Contracting Officer. The Contracting Officer shall act on any such requests for approval within thirty (30) days.
- (3) The Contractor agrees to be bound by the provisions of 35 U.S.C. 204 (Preference for United States industry).
- (4) The Contractor agrees to be bound by paragraph (t) U.S. Competitiveness in its Patent Rights provision (e.g. *48 CFR 970.5227-10 or 48 CFR 970.5227-12 as may be modified*) as applicable.
- (g) *Indemnity—product liability.* In entering into written technology transfer agreements, including but not limited to, research and development agreements, licenses, assignments and CRADAs, the Contractor agrees to include in such agreements a requirement that the U.S. Government and the Contractor, except for any negligent acts or omissions of the Contractor, be indemnified for all damages, costs, and expenses, including attorneys' fees, arising from personal injury or property damage occurring as a result of the making, using or selling of a product, process or service by or on behalf of the Participant, its assignees or licensees which was derived from the work performed under the agreement. Except for CRADA and

SPP where the guidance is already provided elsewhere, the Contractor shall identify and obtain the approval of the Contracting Officer for any proposed exceptions to this requirement such as where State or local law expressly prohibit the Participant from providing indemnification or where the research results will be placed in the public domain.

- (h) *Disposition of income.*
- (1) Royalties or other income earned or retained by the Contractor as a result of performance of authorized technology transfer activities herein shall be used by the Contractor for scientific research, development, technology transfer, and education at the Laboratory, consistent with the research and development mission and objectives of the Laboratory and subject to Section 12(b)(5) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710a(b)(5)) and Chapter 38 of the Patent Laws (35 U.S.C. 200 et seq.) as amended through the effective date of this contract award or modification. If the net amounts of such royalties and income received from patent licensing after payment of patenting costs, licensing costs, payments to inventors and other expenses incidental to the administration of Subject Inventions during any fiscal year exceed 5 percent of the Laboratory's budget for that fiscal year, 15 percent of such excess amounts shall be paid to the Treasury of the United States, and the remaining amount of such excess shall be used by the Contractor for the purposes as described above in this paragraph. Any inventions arising out of such scientific research and development activities shall be deemed to be Subject Inventions under the contract.
 - (2) The Contractor shall include as a part of its annual Laboratory Institutional Plan or other such annual document a plan setting out those uses to which royalties and other income received as a result of performance of authorized technology transfer activities herein will be applied at the Laboratory, and at the end of the year, provide a separate accounting for how the funds were actually used. Under no circumstances shall these royalties and income be used for any purpose inconsistent with DOE mission direction.
 - (3) The Contractor shall establish subject to the approval of the Contracting Officer a policy for making awards or sharing of royalties with Contractor employees, other coinventors and coauthors, including Federal employee coinventors when deemed appropriate by the Contracting Officer. The Contractor shall notify the Contracting Officer of any changes to that policy, and such changes, shall be subject to the approval of the Contracting Officer.
- (i) *Transfer to successor contractor.* In the event of termination or upon the expiration of this contract, any unexpended balance of income received for use at the Laboratory shall be transferred, at the Contracting Officer's request, to a successor contractor, or in the absence of a successor contractor, to such other entity as designated by the Contracting Officer. The Contractor shall transfer title, as one or several packages if necessary,

to the extent the Contractor retains title, in all patents and patent applications, licenses, accounts containing royalty revenues from such license agreements, including equity positions in third party entities, and other intellectual property rights which arose at the Laboratory, to the successor contractor or to the Government as directed by the Contracting Officer.

- (j) *Technology transfer affecting the national security.*
- (1) The Contractor shall notify and obtain the approval of the Contracting Officer, prior to entering into any technology transfer arrangement, when such technology or any part of such technology is classified or sensitive under Section 148 of the Atomic Energy Act (42 U.S.C. 2168), as amended. Such notification shall include sufficient information to enable DOE to determine the extent that commercialization of such technology would enhance or diminish security interests of the United States, or diminish communications within DOE's nuclear weapon production complex. DOE shall use its best efforts to complete its determination within sixty (60) days of the Contractor's notification, and provision of any supporting information, and DOE shall promptly notify the Contractor as to whether the technology is transferable.
 - (2) The Contractor shall include in all of its technology transfer agreements with third parties, including, but not limited to, CRADAs, licensing agreements and assignments, notice to such third parties that the export of goods and/or technical data from the United States may require some form of export control license or other authority from the U.S. Government and that failure to obtain such export control license may result in criminal liability under U.S. laws.
 - (3) For other than fundamental research as defined in National Security Decision Directive 189, the Contractor is responsible to conduct internal export control reviews and assure that technology is transferred in accordance with applicable law.
- (k) *Records.* The Contractor shall maintain records of its technology transfer activities in a manner and to the extent satisfactory to the DOE and specifically including, but not limited to, the licensing agreements, assignments and the records required to implement the requirements of paragraphs (e), (f), and (h) of this clause and shall provide reports to the Contracting Officer to enable DOE to maintain the reporting requirements of Section 12(c)(6) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710a(c)(6)). Such reports shall be made annually in a format to be agreed upon between the Contractor and DOE and in such a format which will serve to adequately inform DOE of the Contractor's technology transfer activities while protecting any data not subject to disclosure under the Rights in Technical Data clause and paragraph (n) of this clause. Such records shall be made available in accordance with the clauses of this contract pertaining to inspection, audit and examination of records.

(l) *Reports to Congress.* To facilitate DOE's reporting to Congress, the Contractor is required to submit annually to DOE a technology transfer plan for conducting its technology transfer function for the upcoming year, including plans for securing intellectual property rights in Laboratory innovations with commercial promise and plans for managing such innovations so as to benefit the competitiveness of United States industry. This plan, which may be included in the Annual Laboratory Plan, shall be provided to the Contracting Officer on or before October 1st of each year.

(m) *Oversight and appraisal.* The Contractor is responsible for developing and implementing effective internal controls for all technology transfer activities consistent with the audit and record requirements of this contract. Laboratory Contractor performance in implementing the technology transfer mission and the effectiveness of the Contractor's procedures will be evaluated by the Contracting Officer as part of the annual appraisal process, with input from the cognizant Secretarial Officer or program office.

(n) *Technology transfer through technology transfer Agreements.* Upon approval of the Contracting Officer and as provided in DOE approved guidance, the Laboratory Director, or designee, may enter into technology transfer agreements on behalf of the DOE subject to the requirements set forth in this paragraph.

(1) *Review and approval of CRADAs.*

(i) Except as otherwise directed in writing by the Contracting Officer, each JWS or MSW shall be submitted to the Contracting Officer for approval. The Contractor's Laboratory Director or designee shall provide a program mission impact statement and shall include an impact statement regarding related intellectual property rights known by the Contractor to be owned by the Government to assist the Contracting Officer in the approval determination.

(ii) The Contractor shall also include (specific to the proposed CRADA), a statement of compliance with the fairness of opportunity requirements of paragraph (e) of this clause.

(iii) Within thirty (30) days after submission of a JWS, MSW or proposed CRADA, the Contracting Officer shall approve, disapprove or request modification to the JWS, MSW or CRADA. The Contracting Officer shall provide a written explanation to the Contractor's Laboratory Director or designee of any disapproval or requirement for modification of a JWS or proposed CRADA.

(iv) Except as otherwise directed in writing by the Contracting Officer, the Contractor shall not enter into, or begin work under, a CRADA until approval of the CRADA or relevant MSW has been granted by the Contracting Officer. The Contractor may submit its proposed CRADA to the Contracting Officer at the

time of submitting its proposed JWS, relevant MSW or any time thereafter.

- (2) *Selection of participants.* The Contractor's Laboratory Director or designee in deciding what CRADA to enter into shall:
- (i) Give special consideration to small business firms, and consortia involving small business firms;
 - (ii) Give preference to business units located in the United States which agree that products or processes embodying intellectual property will be substantially manufactured or practiced in the United States and, in the case of any industrial organization or other person subject to the control of a foreign company or government, take into consideration whether or not such foreign government permits United States agencies, organizations, or other persons to enter into cooperative research and development agreements and licensing agreements. The Contractor, in considering these factors, may rely upon the following information:
 - (A) U.S. Trade Representative Inventory of Foreign Trade Barriers,
 - (B) U.S. Trade Representative Special 301 Report, and
 - (C) Such other relevant information available to the Contracting Officer. The Contractor should review the U.S. Trade Representative web site at <http://www.ustr.gov> for the most current versions of these reports and other relevant information. The Contractor is encouraged to utilize other available resources, as necessary, to allow for a complete and informed decision;
 - (iii) Provide fairness of opportunity in accordance with the requirements of paragraph (e) of this clause; and
 - (iv) Give consideration to the conflicts of interest requirements of paragraph (d) of this clause.
- (3) *Withholding of data.*
- (i) Data that is first produced as a result of research and development activities conducted under a CRADA and that would be a trade secret or commercial or financial data that would be privileged or confidential, if such data had been obtained from a non-Federal third party, may be protected from disclosure under the Freedom of Information Act as provided in the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710a(c)(7)) for a period as agreed in the

CRADA of up to five (5) years from the time the data is first produced or otherwise as delineated in Stevenson-Wydler, as amended. The DOE shall cooperate with the Contractor in protecting such data.

- (ii) Unless otherwise expressly approved by the Contracting Officer in advance for a specific CRADA, the Contractor agrees, at the request of the Contracting Officer, to transmit such data to other DOE facilities for use by DOE or its Contractors by or on behalf of the Government. When data protected pursuant to paragraph (n)(3)(i) of this clause is so transferred, the Contractor shall clearly mark the data with a legend setting out the restrictions against private use and further dissemination, along with the expiration date of such restrictions.
 - (iii) A final technical report, upon completion of a CRADA, shall be provided to DOE's Office of Scientific and Technical Information; reports marked as Protected CRADA Information will not be released to the public for a period in accordance with the terms of the CRADA.
 - (iv) In addition to its authority to license intellectual property, the Contractor may enter into licensing agreements with third parties for data developed by the Contractor under a CRADA subject to other provisions of this contract. However, the Contractor shall neither use the protection against dissemination nor the licensing of data as an alternative to the submittal of invention disclosures which include data protected pursuant to paragraph (n)(3)(i) of this clause.
- (4) *SPP and user facility programs.*
- (i) SPP and User Facility Agreements (UFAs) may be available for use by the Contractor in addition to CRADAs. The Contractor agrees to inform prospective CRADA participants, which are intending to substantially pay full cost recovery for the effort under a proposed CRADA, of the availability of alternative forms of agreements, i.e., SPP and UFA, and of the Class Patent Waiver provisions associated therewith.
 - (ii) Where the Contractor believes that the transfer of technology to the U.S. domestic economy will benefit from, or other equity considerations dictate, an arrangement other than the Class Waiver of patent rights to the sponsor in SPP and UFAs, a request may be made to the Contracting Officer for an exception to the Class Waivers.
 - (iii) Rights to inventions made under agreements other than funding agreements with third parties shall be governed by the appropriate provisions incorporated, with DOE approval, in such agreements, and the provisions in such agreements take

precedence over any disposition of rights contained in this contract. Disposition of rights under any such agreement shall be in accordance with any DOE class waiver (including SPP and User Class Waivers) or individually negotiated waiver which applies to the agreement.

- (5) *Conflicts of interest.*
- (i) Except as provided in paragraph (n)(5)(iii) of this clause, the Contractor shall assure that no employee of the Contractor shall have a substantial role (including an advisory role) in the negotiation, approval or performance of a technology transfer agreement, if, to such employee's knowledge--
 - (A) Such employee, or the spouse, child, parent, sibling, or partner of such employee, or an organization (other than the Contractor) in which such employee serves as an officer, director, trustee, partner, or employee—
 - (1) Holds financial interest in any entity, other than the Contractor, that has a substantial interest in the entity of the technology transfer agreement; or
 - (2) Receives a gift or gratuity from any entity, other than the Contractor, that has a substantial interest in the entity of the technology transfer agreement; or
 - (B) A financial interest in any entity, other than the Contractor, that has a substantial interest in the entity of the technology transfer agreement, is held by any person or organization with whom such employee is negotiating or has any arrangement concerning prospective employment.
 - (ii) The Contractor shall require that each employee of the Contractor who has a substantial role (including an advisory role) in the negotiation, approval or performance of the technology transfer agreement certify through the Contractor to the Contracting Officer that the circumstances described in paragraph (n)(5)(i) of this clause do not apply to that employee.
 - (iii) The requirements of paragraphs (n)(5)(i) and (n)(5)(ii) of this clause shall not apply in a case where the Contracting Officer is advised by the Contractor in advance of the participation of an employee described in those paragraphs of the nature of and extent of any financial interest described in paragraph (n)(5)(i) of this clause, and the Contracting Officer determines that such financial interest is not so substantial as to be considered likely to affect the integrity of the Contractor employee's participation

in the process of negotiation, approval or performance of the technology transfer agreement.

- (o) *Technology transfer in other cost-sharing agreements.* In conducting research and development activities in cost-shared agreements not covered by paragraph (n) of this clause, the Contractor, with prior written permission of the Contracting Officer, may provide for the withholding of data produced thereunder in accordance with the applicable provisions of paragraph (n)(3) of this clause.

- (p) *Technology partnership ombudsman.*
 - (1) The Contractor agrees to establish a position to be known as "Technology Partnership Ombudsman," to help resolve complaints from outside organizations regarding the policies and actions of the Contractor with respect to technology partnerships (including CRADAs), patents owned by the Contractor for inventions made at the laboratory, and technology licensing.
 - (2) The Ombudsman shall be a senior official of the Contactor's laboratory staff, who is not involved in day-to-day technology partnerships, patents or technology licensing, or, if appointed from outside the laboratory or facility, shall function as such senior official.
 - (3) The duties of the Technology Partnership Ombudsman shall include--
 - (i) Serving as the focal point for assisting the public and industry in resolving complaints and disputes with the laboratory or facility regarding technology partnerships, patents, and technology licensing;
 - (ii) Promoting the use of collaborative alternative dispute resolution techniques such as mediation to facilitate the speedy and low cost resolution of complaints and disputes, when appropriate; and
 - (iii) Submitting a quarterly report, in a format provided by DOE, to Director of the DOE Office of Dispute Resolution and the Contracting Officer concerning the number and nature of complaints and disputes raised, along with the Ombudsman's assessment of their resolution, consistent with the protection of confidential and sensitive information.

(End of clause)

CLAUSE I.144 – DEAR 970.5227-10 – PATENT RIGHTS - MANAGEMENT AND OPERATING CONTRACTS, NONPROFIT ORGANIZATION OR SMALL BUSINESS FIRM CONTRACTOR (DEC 2000) (DEVIATION) (AL-2022-01 CLASS DEVIATION) (JAN 2022)

- (a) *Definitions.* DOE licensing regulations means the Department of Energy patent licensing regulations at 10 CFR part 781.

Exceptional circumstance subject invention means any subject invention in a technical field or related to a task determined by the Department of Energy to be subject to an exceptional circumstance under 35 U.S.C. 202(a)(ii) and in accordance with 37 CFR 401.3(e).

Initial Patent Application means, as to a given Subject Invention, the first provisional or non-provisional U.S. national application for patent as defined in 37 CFR 1.9(a)(2) and (3), respectively, the first international application filed under the Patent Cooperation Treaty as defined in 37 CFR 1.9(b) which designates the United States, or the first application for a Plant Variety Protection certificate, as applicable.

Invention means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.). Made when used in relation to any invention means the conception or first actual reduction to practice of such invention.

Nonprofit organization means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

Patent Counsel means the Department of Energy (DOE) Patent Counsel assisting the DOE contracting activity. The Patent Counsel is the first and primary point of contact for activities described in this clause.

Practical application means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

Small business firm means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, are used.

Statutory Period means the one-year period before the effective filing date of a claimed invention during which exceptions to prior art exist per 35 U.S.C. 102(b) as amended by the Leahy-Smith America Invents Act, Public Law 112-29.

Subject Invention means any invention of the contractor conceived or first actually reduced to practice in the performance of work under this contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) shall also occur during the period of contract performance.

(b) Allocation of Principal Rights.

- (1) Retention of title by the Contractor. Except for exceptional circumstance subject inventions, the contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.
- (2) Treaties and international agreements. Any rights acquired by the Contractor in subject inventions are subject to any disposition of right, title, or interest in or to subject inventions provided for in treaties or international agreements identified at DOE's Office of International Affairs (International Commitments—IEC) (<http://energy.gov/ia/iec-documents>), or other rights which are necessary for the Government to meet its obligations to foreign governments, their nationals and international organizations under such treaties or international agreements with respect to subject inventions.
- (3) Exceptional circumstance subject inventions. Except to the extent that rights are retained by the Contractor in a determination of exceptional circumstances or granted to a contractor through a determination of greater rights in accordance with subparagraph (b)(4) of this clause, the Contractor does not have a right to retain title to any exceptional circumstance subject inventions and agrees to assign to the Government the entire right, title, and interest, throughout the world, in and to any exceptional circumstance subject inventions.
 - (i) Inventions within or relating to the following fields of technology are exceptional circumstance subject inventions--
 - (A) Uranium enrichment technology;
 - (B) Storage and disposal of civilian high-level nuclear waste and spent fuel technology; and
 - (C) National security technologies classified or sensitive under Section 148 of the Atomic Energy Act (42 U.S.C. 2168).
 - (ii) As determined by the DOE, inventions made under any agreement, contract or subcontract, related to the exceptional circumstance subject inventions under U.S.C. § 202, maintained by the Office of the Assistant General Counsel for Technology Transfer and Intellectual Property, include but is not limited to the following—
 - (A) DOE Steel Initiative and Metals Initiative;

- (B) U.S. Advanced Battery Consortium;
 - (C) Any funding agreement which is funded in part by the Electric Power Research Institute (EPRI) or the Gas Research Institute (GRI);
 - (D) Any funding agreement related to Energy Efficiency, Storage, Integration and Related Technologies, Renewable Energy, and Advanced Energy Technologies which is funded by the Office of Energy Efficiency and Renewable Energy (EERE) or the Advanced Research Projects Agency – Energy (ARPA-E);
 - (E) Solid State Energy Conversion Alliance (SECA), if the Contractor is a participant in the “Core Technology Program”;
 - (F) Solid State Lighting (SSL) Program, if the Contractor is a participant in the “Core Technology Program.”
 - (G) Cybersecurity, Energy Security, and Emergency Response;
 - (H) Quantum Information Science Technologies; and
 - (I) Domestic Manufacture of DOE Science and Energy Technologies (S&E DEC).
- (iii) Inventions subject to “Department of Energy Determination of Exceptional Circumstances under the Bayh-Dole Act to Further Promote Domestic Manufacture of DOE Science and Energy Technologies” (S&E DEC) issued June 7, 2021, must comply with paragraph (t) U.S. Competitiveness requirements to the maximum extent authorized by the S&E DEC unless otherwise directed by DOE Patent Counsel in writing.
 - (iv) DOE reserves the right to unilaterally amend this contract to modify, by deletion or insertion, technical fields, tasks, or other classifications for the purpose of determining DOE exceptional circumstance subject inventions.
- (4) Contractor request for greater rights in exceptional circumstance subject inventions. The Contractor may request rights greater than allowed by the exceptional circumstance determination in an exceptional circumstance subject invention by submitting such a request in writing to Patent Counsel at the time the exceptional circumstance subject invention is disclosed to DOE or within eight (8) months after conception or first actual reduction to practice of the exceptional circumstance subject invention, whichever occurs first, unless a longer period is authorized in writing by the Patent Counsel for good cause shown in writing by the Contractor. DOE may, in its discretion, grant or refuse to grant such a request by the Contractor.
 - (5) Contractor employee-inventor rights. If the Contractor does not elect to retain title to a subject invention or does not request greater rights in an exceptional circumstance subject invention, a Contractor employee-inventor, after consultation with the Contractor and with written authorization from the Contractor in

accordance with 10 CFR 784.9(b)(4), may request greater rights, including title, in the subject invention or the exceptional circumstance invention from DOE, and DOE may, in its discretion, grant or refuse to grant such a request by the Contractor employee-inventor.

- (6) Government assignment of rights in Government employees' subject inventions. If a Government employee is a joint inventor of a subject invention or of an exceptional circumstance subject invention to which the Contractor has rights, the Government may assign or refuse to assign to the Contractor any rights in the subject invention or exceptional circumstance subject invention acquired by the Government from the Government employee, in accordance with 48 CFR 27.304–1(d). The rights assigned to the Contractor are subject to any provision of this clause that is applicable to subject inventions in which the Contractor retains title, including reservation by the Government of a nonexclusive, nontransferable, irrevocable, paid-up license, except that the Contractor shall file its Initial Patent Application claiming the subject invention or exceptional circumstance invention within one (1) year after the assignment of such rights. The Contractor shall share royalties collected for the manufacture, use or sale of the subject invention with the Government employee.
- (c) Subject invention disclosure, election of title and filing of patent application by contractor.
- (1) Subject invention disclosure. The contractor will disclose each subject invention to the Patent Counsel within two months after the inventor discloses it in writing to contractor personnel responsible for patent matters. The disclosure to the agency shall be in the form of a written or electronic report and shall identify the contract under which the invention was made and the inventor(s) and all sources of funding by Budget and Resources (B&R) code and, if applicable, the technology transfer agreement number for the invention. It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted or made available for publication at the time of disclosure. The disclosure shall identify if the invention falls within an exceptional circumstance field. DOE will make a determination and advise the Contractor within 30 days of receipt of an invention disclosure as to whether the invention is an exceptional circumstance subject invention. In addition, after disclosure to the Patent Counsel, the Contractor will notify the agency of any accepted manuscript describing the invention for publication or any on sale or public use planned by the contractor that is 60 days prior to the end of the Statutory Period. The Contractor shall notify Patent Counsel prior to any release or publication of information concerning any nonelectable subject invention such as an exceptional circumstance subject invention or any subject invention related to a treaty or international agreement.
 - (2) Election by the Contractor. Except as provided in paragraph (b)(2) of this clause, the Contractor will elect in writing whether or not to retain title to any such invention by notifying the Federal agency within two years of disclosure to the

Federal agency. However, in any case where publication, on sale or public use has initiated the Statutory Period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the Statutory Period.

- (3) Filing of patent applications by the Contractor. The Contractor will file its Initial Patent Application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, or prior to the end of any Statutory Period herein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor will file patent applications in additional countries or international patent offices within either ten months of the corresponding first filed patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.
 - (4) Contractor's request for an extension of time. Requests for an extension of the time for disclosure, election, and filing under subparagraphs (c)(1), (2) and (3) may, at the discretion of Patent Counsel, be granted.
 - (5) Publication review. During the course of the work under this contract, the Contractor may desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. Contractor's Invention Identification Procedures under paragraph (f)(5) should address timely disclosure of inventions, consider whether review is required, and if so, facilitate such review by Contractor personnel responsible for patent matters prior to disclosure of publications in order that public disclosure of such information will not adversely affect the patent interest of DOE or the Contractor.
 - (6) Reporting to DOE and Approvals. Whenever possible in this paragraph (c), the Government electronic reporting system (e.g., iEdison or similar system) shall be used for reporting and approvals.
- (d) Conditions when the Government may obtain title. The Contractor will convey to the DOE, upon written request, title to any subject invention—
- (1) If the Contractor fails to disclose or elect title to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain title.
 - (2) In those countries in which the Contractor fails to file a patent application within the times specified in subparagraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in subparagraph (c) above, but prior to its receipt of the written request of the DOE, the Contractor shall continue to retain title in that country.
 - (3) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

- (4) If the Contractor requests that DOE acquire title or rights from the Contractor in a subject invention to which the Contractor had initially retained title or rights, or in an exceptional circumstance subject invention to which the Contractor was granted greater rights, DOE may acquire such title or rights from the Contractor, or DOE may decide against acquiring such title or rights from the Contractor, at DOE's sole discretion.
 - (5) Upon a breach of paragraph (t) U.S. Competitiveness of this clause.
- (e) Minimum rights of the Contractor and protection of the Contractor's right to file.
- (1) Request for a Contractor license. The Contractor may request the right to reserve a revocable, nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. DOE may grant or refuse to grant such a request by the Contractor. When DOE approves such reservation, the Contractor's license will normally extend to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a party and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of DOE, except when transferred to the successor of that part of the contractor's business to which the invention pertains.
 - (2) Revocation or modification of a Contractor license. The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and DOE licensing regulations at 10 CFR part 781. This license will not be revoked in the field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the subject invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application of the subject invention in that foreign country.
 - (3) Notice of revocation or modification of a Contractor license. Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed thirty days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and DOE licensing regulations at 10 CFR part 781 concerning the licensing of Government owned inventions, any decision concerning the revocation or modification of the license.
- (f) Contractor action to protect the Government's interest.

- (1) Execution of delivery of title or license instruments. The Contractor agrees to execute or to have executed, and promptly deliver to the Patent Counsel all instruments necessary to accomplish the following actions:
 - (i) Establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title; and
 - (ii) Convey title to DOE when requested under subparagraphs (b) or paragraph (d) of this clause and to enable the Government to obtain patent protection throughout the world in that subject invention.
- (2) Contractor employee agreements. The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to Contractor personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor, each subject invention made under this contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.
- (3) Notification of discontinuation of patent protection. The Contractor will notify the Patent Counsel of any decision not to file a patent application, continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 60 days before the expiration of the response period required by the relevant patent office.
- (4) Notification of Government rights. The Contractor agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with government support under (identify the contract) awarded by (identify the Federal agency). The government has certain rights in the invention."
- (5) Invention identification procedures. The Contractor shall establish and maintain active and effective procedures to ensure that subject inventions are promptly identified and timely disclosed and shall submit a written description of such procedures to the Contracting Officer so that the Contracting Officer may evaluate and determine their effectiveness.
- (6) Patent filing documentation. If the Contractor files a domestic or foreign patent application claiming a subject invention, the Contractor shall promptly submit to Patent Counsel, upon request, the following information and documents:

- (i) The filing date, serial number, title, and a copy of the patent application (including an English-language version if filed in a language other than English);
 - (ii) An executed and approved instrument fully confirmatory of all Government rights in the subject invention; and
 - (iii) The patent number, issue date, and a copy of any issued patent claiming the subject invention.
- (7) Duplication and disclosure of documents. The Government may duplicate and disclose subject invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause; provided, however, that any such duplication or disclosure by the Government is subject to the confidentiality provision at 35 U.S.C. 205 and 37 CFR part 401.
- (g) Subcontracts.
- (1) Subcontractor subject inventions. The Contractor shall not obtain rights in the subcontractor's subject inventions as part of the consideration for awarding a subcontract.
 - (2) Inclusion of patent rights clause—non-profit organization or small business firm subcontractors. Unless otherwise authorized or directed by the Contracting Officer, the Contractor shall include the patent rights clause at 37 CFR 401.14, suitably modified to identify the parties, in all subcontracts, at any tier, for experimental, developmental, demonstration or research work to be performed by a small business firm or domestic nonprofit organization, except subcontracts which are subject to exceptional circumstances in accordance with 35 U.S.C. 202 and subparagraph (b)(2) of this clause. The subcontractor retains all rights provided for the contractor in the patent rights clause at 37 CFR 401.3(a) and 401.14. If the S&E DEC is applicable (see subparagraph (b)(6)(iii) of this clause), paragraph (t) U.S. Competitiveness must be included in the subcontractor's patent clause as paragraph (m) U.S. Competitiveness. Additionally, the following item (4) must be added to paragraph (d) of the subcontractor's patent clause "(4) Upon a breach of paragraph (m) U.S. Competitiveness of this clause."
 - (3) Inclusion of patent rights clause—subcontractors other than non-profit organizations and small business firms. Except for the subcontracts described in subparagraph (g)(2) of this clause, the Contractor shall include the patent rights clause at 48 CFR 952.227–13 suitably modified to identify the parties, in any contract for experimental, developmental, demonstration or research work. For subcontracts subject to exceptional circumstances, the contractor must consult with DOE patent counsel with respect to the appropriate patent clause. For subcontracts subject to exceptional circumstances, the contractor must consult with DOE patent counsel with respect to the appropriate patent clause. If the S&E DEC is applicable (see subparagraph (b)(6)(iii) of this clause), paragraph (t) U.S. Competitiveness must be included in the subcontractor's patent clause as paragraph (n) U.S. Competitiveness. Additionally, the following must be appended

to the first sentence paragraph of (d)(1) "or upon a breach of paragraph (n) U.S. Competitiveness of this clause."

- (4) DOE and subcontractor contract. With respect to subcontracts at any tier, DOE, the subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.
 - (5) Subcontractor refusal to accept terms of patent clause. If a prospective subcontractor refuses to accept the terms of a patent rights clause, the Contractor shall promptly submit a written notice to the Contracting Officer stating the subcontractor's reasons for such a refusal, including any relevant information for expediting disposition of the matter, and the Contractor shall not proceed with the subcontract without the written authorization of the Contracting Officer.
 - (6) Notification of award of subcontract. Upon the award of any subcontract at any tier containing a patent rights clause, the Contractor shall promptly notify the Contracting Officer in writing and identify the subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Contracting Officer, the Contractor shall furnish a copy of a subcontract.
 - (7) Identification of subcontractor subject inventions. If the Contractor in the performance of this contract becomes aware of a subject invention made under a subcontract, the Contractor shall promptly notify Patent Counsel and identify the subject invention.
- (h) Reporting on utilization of subject inventions. The Contractor agrees to submit to DOE on request, periodic reports, no more frequently than annually, on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. In addition, the Contractor shall provide data to DOE for the annual data call for the Department of Commerce report that includes the number of patent applications filed, the number of patents issued, licensing activity, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by DOE in accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), DOE agrees it will not disclose such information to persons outside the Government without permission of the Contractor.
- (i) Preference for United States Industry. Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential

licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

- (j) **March-in Rights.** The Contractor agrees that, with respect to any subject invention in which it has acquired title, DOE has the right under 35 U.S.C. 203 and in accordance with the procedures in 37 CFR 401.6 and any DOE supplemental regulations to require the Contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and, if the Contractor, assignee or exclusive licensee refuses such a request, DOE has the right to grant such a license itself
- (k) ***Special provisions for contracts with nonprofit organizations.*** If the Contractor is a nonprofit organization, it agrees that:
 - (1) DOE approval of assignment of rights. Rights to a subject invention in the United States may not be assigned by the Contractor without the approval of DOE, except where such assignment is made to an organization which has as one of its primary functions the management of inventions; provided, that such assignee will be subject to the same provisions of this clause as the Contractor.
 - (2) ***Small business firm licensees.*** It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms, and that it will give a preference to a small business firm when licensing a subject invention if the Contractor determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Contractor. However, the Contractor agrees that the Secretary of Commerce may review the Contractor's licensing program and decisions regarding small business firm applicants, and the Contractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when that Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of this subparagraph (k)(2).
 - (3) ***Contractor licensing of subject inventions.*** To the extent that it provides the most effective technology transfer, licensing of subject inventions shall be administered by Contractor employees on location at the facility.
- (l) ***Communications.*** The Contractor shall direct any notification, disclosure or request provided for in this clause to the Patent Counsel assisting the DOE contracting activity.
- (m) **Reports.**
 - (1) **Interim reports.** Upon DOE's request, the Contractor shall submit to DOE, no more frequently than annually, a list of subject inventions disclosed to DOE during a specified period, or a statement that no subject inventions were made during the

specified period; and a list of subcontracts containing a patent clause and awarded by the Contractor during a specified period, or a statement that no such subcontracts were awarded during the specified period.

- (2) Final reports. Upon DOE's request, the Contractor shall submit to DOE, prior to closeout of the contract, a list of all subject inventions disclosed during the performance period of the contract, or a statement that no subject inventions were made during the contract performance period; and a list of all subcontracts containing a patent clause and awarded by the Contractor during the contract performance period under which a subject invention was reported, or a statement that no such subject inventions under subcontracts were reported during the contract performance period.
- (n) Records relating to subject inventions—
- (1) Contractor compliance. Until the expiration of three (3) years after final payment under this contract, the Contracting Officer or any authorized representative may examine any books (including laboratory notebooks), records, documents, and other supporting data of the Contractor, which the Contracting Officer or authorized representative deems reasonably pertinent to the discovery or identification of subject inventions, including exceptional circumstance subject inventions, or to determine Contractor compliance with any requirement of this clause.
 - (2) Unreported inventions. If the Contracting Officer is aware of an invention that is not disclosed by the Contractor to DOE, and the Contracting Officer believes the unreported invention may be a subject invention, including exceptional circumstance subject inventions, DOE may require the Contractor to submit to DOE a disclosure of the invention for a determination of ownership rights.
 - (3) Confidentiality. Any examination of records under this paragraph is subject to appropriate conditions to protect the confidentiality of the information involved.
 - (4) Power of inspection. With respect to a subject invention for which the Contractor has responsibility for patent prosecution, the Contractor shall furnish the Government, upon request by DOE, an irrevocable power to inspect and make copies of a prosecution file for any patent application claiming the subject invention.
- (o) Facilities license. In addition to the rights of the parties with respect to inventions or discoveries conceived or first actually reduced to practice in the course of or under this contract, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license in and to any inventions or discoveries regardless of when conceived or actually reduced to practice or acquired by the Contractor at any time through completion of this contract and which are incorporated or embodied in the construction of the facility or which are utilized in the operation of the facility or which cover articles, materials, or product manufactured at the facility (1) to practice or have practiced by or for the Government at the facility, and (2) to transfer such license with the transfer of that facility. Notwithstanding the acceptance or

exercise by the Government of these rights, the Government may contest at any time the enforceability, validity or scope of, or title to, any rights or patents herein licensed.

- (p) Atomic Energy.
- (1) Pecuniary awards. No claim for pecuniary award of compensation under the provisions of the Atomic Energy Act of 1954, as amended, may be asserted with respect to any invention or discovery made or conceived in the course of or under this contract.
 - (2) Patent agreements. Except as otherwise authorized in writing by the Contracting Officer, the Contractor shall obtain patent agreements to effectuate the provisions of subparagraph (p)(1) of this clause from all persons who perform any part of the work under this contract, except nontechnical personnel, such as clerical employees and manual laborers.
- (q) Classified inventions.
- (1) Approval for filing a foreign patent application. The Contractor shall not file or cause to be filed an application or registration for a patent disclosing a subject invention related to classified subject matter in any country other than the United States without first obtaining the written approval of the Contracting Officer.
 - (2) Transmission of classified subject matter. If in accordance with this clause the Contractor files a patent application in the United States disclosing a subject invention that is classified for reasons of security, the Contractor shall observe all applicable security regulations covering the transmission of classified subject matter. If the Contractor transmits a patent application disclosing a classified subject invention to the United States Patent and Trademark Office (USPTO), the Contractor shall submit a separate letter to the USPTO identifying the contract or contracts by agency and agreement number that require security classification markings to be placed on the patent application.
 - (3) Inclusion of clause in subcontracts. The Contractor agrees to include the substance of this clause in subcontracts at any tier that cover or are likely to cover subject matter classified for reasons of security.
- (r) Patent functions. Upon the written request of the Contracting Officer or Patent Counsel, the Contractor agrees to make reasonable efforts to support DOE in accomplishing patent-related functions for work arising out of the contract, including, but not limited to, the prosecution of patent applications, and the determination of questions of novelty, patentability, and inventorship.
- (s) Educational awards subject to 35 U.S.C. 212. The Contractor shall notify the Contracting Officer prior to the placement of any person subject to 35 U.S.C. 212 in an area of technology or task (1) related to exceptional circumstance technology or (2) which is subject to treaties or international agreements as set forth in paragraph (b)(3) of this clause or agreements other than funding agreements. The Contracting Officer may disapprove of any such placement.

- (t) U.S. Competitiveness. Notwithstanding 48 CFR 970.5227-3(f) U.S. Industrial Competitiveness, for all work subject to the S&E DEC, the Contractor agrees that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., alternative binding commitments to provide an overall net benefit to the U.S. economy. The Contractor agrees that it will not license, assign, or otherwise transfer any subject invention to any entity, at any tier, unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention(s):
- (1) undergo a change in ownership amounting to a controlling interest, or
 - (2) sell, assign, or otherwise transfer title or exclusive rights in the invention(s), then the assignment, license, or other transfer of rights in the subject invention(s) is/are suspended until approved in writing by DOE. The Contractor and any successor assignee will convey to DOE, upon written request from DOE, title to any subject invention, upon a breach of this paragraph. The Contractor will include this paragraph in all subawards/contracts, regardless of tier, for experimental, developmental or research work.
- (u) Annual appraisal by Patent Counsel. Patent Counsel may conduct an annual appraisal to evaluate the Contractor's effectiveness in identifying and protecting subject inventions in accordance with DOE policy.
- (v) Unauthorized Access. The contractor will protect all invention reports, unpublished patent applications and other invention related information from unauthorized access and disclosure using at least commonly available techniques and practices. In the event that the Contractor becomes aware of unauthorized access to invention reports, unpublished patent applications and other invention related information, the Contractor shall notify Patent Counsel within 7 days.

(End of clause)

APPENDIX H

SMALL BUSINESS SUBCONTRACTING PLAN

**Applicable to the Operations of
Brookhaven National Laboratory**

FY2022 SMALL BUSINESS SUBCONTRACTING PLAN

Contractor:	Brookhaven Science Associates, LLC.
Contractor Address:	Brookhaven National Laboratory, P.O. Box 5000
City/State/Zip:	Upton, New York 11973-5000
Company Phone:	(631) 344-8000
Point of Contact:	Mary Rogers
POC Phone:	(631) 344-3251
POC E-mail:	mrogers@bnl.gov
Contract Number:	DE-SC0012704
Item/Service:	Management and Operation of BNL
Total Amount of Contract (Including Options):	\$4,561,473,339.77 (through mod 0193)
Period of Contract Performance:	01/05/2015 to 01/04/2025

I. Type of Plan

Individual Contract Plan – An Individual Contract Plan means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offer’s planned subcontracting in support of the specific contract except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the Contract.

II. Goals

- a. BSA has established separate dollar and percentage goals for small business (SB) (including Alaska Native Corporations [ANC] and Indian Tribes), small disadvantaged business (SDB - including ANCs and Indian Tribes), women-owned small business (WOB), HUBZone small business (HUB), service-disabled veteran-owned small business (SDVOB) and veteran-owned small business (VOB) concerns (hereafter referred to the six small business categories) as subcontractors, as specified in FAR 19.704.
 1. The total estimated dollar value of all planned subcontracting (to all types of business concerns) under this contract, is \$205,000,000.
 2. The following percentage goals (expressed in terms of a percentage of total planned subcontracting dollars) and associated dollars are applicable to the contract cited above and will be pursued on a best efforts basis consistent with good commercial practices and best value assessments.
 - (i) Total estimated dollar value and percent of planned subcontracting with Small Business (SB) (including ANCs and Indian Tribes): \$100,450,000 and 49%.
 - (ii) Total estimated dollar value and percent of planned subcontracting with Small Disadvantaged Business (SDB)/8(a) (including ANCs and Indian Tribes): \$10,250,000 and 5%.

- (iii) Total estimated dollar value and percent of planned subcontracting with Woman-Owned Small Business (WOB): \$10,250,000 and 5%.
- (iv) Total estimated dollar value and percent of planned subcontracting with Historically Underutilized Small Business (HUBZone): \$6,150,000 and 3%.
- (v) Total estimated dollar value and percent of planned subcontracting with Service-Disabled Veteran-Owned Small Business (SDVOB): \$6,150,000 and 3%.
- (vi) Total estimated dollar value and percent of planned subcontracting with Veteran-Owned Small Business (VOB): \$6,150,000 and 3%.

Small Business Category	BSA Dollar Commitment	BSA Percent Commitment
SB	\$ 100,450,000	49%
SDB	\$ 10,250,000	5%
WOB	\$ 10,250,000	5%
HUBZone	\$ 6,150,000	3%
VOB	\$ 6,150,000	3%
SDVOB	\$ 6,150,000	3%

The following is an indication of the supplies and services to be subcontracted under this Contract, the six categories of small business (including ANCs and Indian Tribes) and large business.

Subcontracted Supplies/Services	SB	SDB	WOB	HUB	SDVOB	VOB	LB
A & E	X				X	X	X
Construction	X	X	X		X	X	X
R & D	X						X
Services	X	X	X	X	X	X	X
Materials & Supplies	X	X	X	X	X	X	X
Electrical	X	X	X	X	X	X	X
IT (Computer)	X	X	X	X	X	X	X
Equipment (Major)	X						X

- b. The goals for the six small business categories are based on consultations with the DOE. Potential suppliers will be identified using BSA's current vendor base, and various directories including: System for Award Management (SAM), the DOE-OSDBU Small Business Contacts Database, Women's Chamber of Commerce, New York U.S. Small Business Administration Long Island, New York U.S. Small Business Administration, The Suffolk County Women's Business Enterprise Coalition (SCWBEC), The Procurement Technical Assistance Center's (PTAC) Database, the Small Business Administration-Small Business Development Center (SBA-SBDC) databases, Hauppauge Industrial Association (HIA-LI) and sharing the small business databases from the other DOE National Labs, etc. The areas to be subcontracted to each target small business group have been determined by historic references and current needs. Capabilities to provide goods and services are determined on an individual basis.

c. Timely Payment to Subcontractors:

BSA will ensure timely payment of amounts due pursuant to the terms of its subcontracts with the six small business concerns.

d. Small Business Set-Asides Types:

BSA will use Small Business Set Asides to support the small business goals stated above.

1. Small Business Set-Aside:

Each acquisition of supplies or services with an anticipated dollar value exceeding the Micro-Purchase Limit but not over the Simplified Acquisition Threshold (FAR 2.101) will be reserved exclusively for small business concerns and shall be set aside for small business unless there is not a reasonable expectation of obtaining offers from two or more responsible small business concerns that are competitive in terms of market prices, quality, and delivery.

2. Construction Set-Asides:

Acquisition of construction estimated to cost \$4 million or less, including new construction, and repair and alteration of structures, shall be a small business set-aside. For acquisition in excess of \$4 million, small business will be considered on a case-by-case basis.

III. Sole Source Procurements:

BSA may award contracts on a sole-source basis to these types of small Businesses:

- a. Small Business Administration (SBA) certified 8(a) small businesses; in accordance with FAR 19.805 (2) for purchases valued at: (A) \$7 million or less for 8(a) small business within North American Industry Classification System (NAICS) codes for manufacturing or \$4 million or less for small business within any other NAICS codes. There will be no limit on the anticipated value of contracts awarded on a sole-source basis to ANC; and
- b. SBA certified Historically Underutilized Small Businesses (HUB) Zone small businesses in accordance with FAR 19.1306 (2) for purchases valued at: (A) \$7 million or less for HUBZone small business within North American Industry Classification System (NAICS) codes for manufacturing or \$4 million or less for HUBZone small business within any other NAICS codes. There will be no limit on the anticipated value of contracts awarded on a sole-source basis to ANC; and
- c. Service-Disabled Veteran-Owned Small Business (SDVOB) small businesses in accordance with FAR 19.1406 (2) sole-source awards to service-disabled veteran-owned small business concerns for \$6.5 million or less for requirement within the NAICS codes for manufacturing; or \$4 million for a requirement within any other NAICS codes. There will be no limit on the anticipated value of contracts awarded on a sole-source basis to ANC.

- d. Set Asides to Small Business for procurements less than the Simplified Acquisition Threshold (SAT).

To further facilitate Brookhaven National Laboratory Small Business Program, BSA will, without further documentation to the file, and based on its unilateral decision, utilize the option of making awards without competition up to the simplified acquisition threshold to small business concerns;

- e. A Protégé under a DOE Prime Contractor Mentor-Protégé Program can be awarded a contract on a noncompetitive basis, without the need for a sole source justification for any value.
- f. Indirect costs have not been included in the dollar and percentage subcontracting goals stated above.

IV. Program Administrator

The Contractor's subcontracting program administrator is:

Name: Mary Rogers
Title: Small Business Liaison Officer
Address: Brookhaven National Laboratory
Procurement & Property Management Division
Building 902B
Upton, New York 11973

Telephone:(631) 344-3251

Email: mrogers@bnl.gov

Duties: General overall responsibility for Brookhaven Science Associates (BSA) subcontracting program, i.e., developing, preparing, and executing subcontracting plans and monitoring performance relative to the requirements of this particular plan. These duties include, but are not limited to, the following activities:

- a. Developing and promoting laboratory-wide policy initiatives that demonstrate BSA's support for awarding contracts and subcontracts to the six small business categories.
- b. Making arrangements for the utilization of various sources for the identification of the six small business categories through some of the following resources: System for Award Management (SAM), the DOE-OSDBU Small Business Contacts Database, GSA Office of Small Business, Women's Chamber of Commerce Database, the Procurement Technical Assistance Center's Database, the SBA-SBDC databases, sharing the Small Business databases from the other DOE National Labs, the National Minority Business Directory, etc. This effort will be focused on identification of reliable, competitive suppliers in the areas where achieving small business goals has been a challenge.
- c. Ensuring small businesses are made aware of subcontracting opportunities and basic prerequisites for the preparation of a responsive bid.

- d. Conducting or arranging for training for procurement personnel regarding the intent and impact of Public Law 95-507 on purchasing procedures.
- e. Monitoring the over \$700,000 (\$1,500,000 for construction) large business subcontractors' performance and making suggestions for the utilization of small business, where applicable, so that any adjustments necessary to achieve the subcontracting plan goals can be made.
- f. Preparing, inputting and submitting timely subcontracting reporting through the eSRS and MOSRC.
- g. Coordinating BSA's activities during compliance reviews by Federal agencies.

V. Equitable Opportunity

BSA will ensure that small businesses have an equitable opportunity to compete for subcontracts. The various efforts include, but are not limited to, the following activities:

- (i) Utilization of the Internet to obtain new sources.
- a. Internal efforts to guide and encourage purchasing personnel:
 - (i) Presenting workshops, seminars, and/or training programs including training in the use of the SAM.
 - (ii) Establishing, maintaining, and using small business source lists, guides, and other data for soliciting subcontracts, and encouraging procurement staff to utilize this data.
 - (iii) Monitoring activities to evaluate compliance with the subcontracting plan.
- b. Outreach efforts to promote small business development will include:
 - (i) Maintaining an annual list of outreach events and activities to attend and participate in.
 - (ii) Providing contact information for 8(a) and HUB-Zone small businesses to assist them in achieving SBA certification.
 - (iii) Maintaining an internal Small Business Policy.
 - (iv) Participating in DOE Small Business Program Manager conference calls.

VI. Flow-Down Clauses

BSA will continue to include the provisions under FAR 52.219-8, "Utilization of Small Business Concerns", in all subcontracts that offer further subcontracting opportunities. BSA will also require all subcontractors, except small business concerns and foreign suppliers, that receive subcontracts in excess of \$700,000 (\$1,500,000 for construction) to adopt a plan that

complies with the requirements of the clause at FAR 52.219-9, "Small Business Subcontracting Plan."

These plans will be reviewed against the provisions of Public Law 95-507 to assure that all minimum requirements of an acceptable subcontracting plan have been satisfied. The acceptability of percentage goals will be determined on a case-by-case basis depending on the supplies/services involved, the availability of the six potential small business categories and prior experience. Once approved and implemented, plans will be monitored through the submission of periodic reports, and/or, as time and availability of funds permit, periodic visits to subcontractors' facilities to review applicable records and subcontracting program progress.

VII. Reporting and Cooperation

BSA will (1) cooperate in any studies or surveys that may be required by the contracting agency or the Small Business Administration; (2) submit any periodic reports required under its Prime Contract, such as utilization reports, which show compliance with the subcontracting plan; (3) submit timely "Subcontracting Report for Individual Contracts," (ISR) and "Summary Subcontract Report," (SSR) in accordance with the instructions identified on the eSRS website (www.esrs.gov); (4) and ensure that large business subcontractors with subcontracting plans provide electronic input to the eSRS as required.

<u>Reporting Period</u>	<u>Report Type</u>	<u>Due Date</u>
Oct 1 – Mar 31	ISR	04/30
Apr 1 – Sep 30	ISR	10/31
Oct 1 – Sep 30	SSR	10/31
Monthly	MOSRC	20 th of each month

VIII. Document Retention

Records will be maintained to demonstrate the procedures adopted to comply with the requirements and goals in the subcontracting plan. These records will include, but not be limited to, the following:

- a. A list of sources, guides and other data used to identify suppliers and vendors.
- b. Documents to support internal guidance and encouragement, provided to buyers through:
 - (i) Workshops, seminars, training programs
 - (ii) Monitoring of activities to evaluate compliance
- c. The procurement files for all subcontract solicitations over the Simplified Acquisition Threshold will contain AMS-Form-002 which indicates for each solicitation whether small businesses were solicited, and if any of the solicited the small business concerns received a subcontract award, as well as a justification for not soliciting small businesses or failure to award a subcontract to a solicited small business.
- d. Representations and Certifications Information
 - (i) 8(a) certification approvals through copies of their SBA certification letter

- (ii) Confirmation of HUB-Zone certification will be verified by searching the companies profile in the System for Award Management (SAM) database.

IX. Mentor-Protégé Program

BSA agrees to establish and implement an official DOE approved “Mentor-Protégé” in accordance with U.S. Department of Energy acquisition regulation (DEAR Part 19). The Small Business Liaison Officer is the individual designated to administer this program.

X. Description of Good Faith Effort

BSA intends to use all reasonable and good faith efforts as described in this Plan to award the stated percentages of the final actual subcontract base amount to the six small businesses concerns. The following steps will be taken:

- a. Issue and promulgate company-wide policy statements in support of small businesses. Develop written procedures and work instructions and assign specific responsibilities regarding requirements of the applicable Public Law.
- b. Review specific procurement actions for possible acquisition from eligible small businesses.
- c. Demonstrate continuing management interest and involvement in support of this effort through such actions as regular reviews of progress.
- d. Train and motivate the procurement personnel regarding the need for the support of small businesses.
- e. Assist small businesses by helping with questions on solicitations, quantities, specifications, and delivery requirements.
- f. Counsel and discuss subcontracting opportunities with small businesses.
- g. Execute Service Agreements, Teaming Agreements, and Basic Ordering Agreements with small business from the six qualified small business categories, as required, in an attempt to ensure availability and usage of subcontractor personnel to support work efforts when required.
- h. Establish and maintain a categorized list of potential subcontractors, including name, address, telephone number, email address, product/service sold, initials of the Buyer and/or Contract Specialist lead given to, and identification of the social economic small business category.

This FY2022 subcontracting plan was submitted by:

Signature: Kevin J. Fox Digitally signed by Kevin J. Fox
Date: 2022.04.06 15:57:03 -04'00' Date: _____

Kevin J. Fox
Interim Procurement and Property Division Manager

Approval:



Fausto R. Fernandez | Contracting Officer
Director, Business Division

Signature: U.S. Department of Energy | Brookhaven Site Office Digitally signed by
Date: 2022.04.12 15:05:00 -04'00' Date: _____

Fausto Fernandez
Contracting Officer
Director, Business Division
U.S. Department of Energy
Brookhaven Site Office

APPENDIX I

DOE Directives/List B

**Applicable to the Operations of
Brookhaven National Laboratory**

There is no List A to this Appendix.

List B to this Appendix contains the following:

Part I: "Directives List"

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

Appendix I - Part I
DOE DIRECTIVES LIST

DOE Directives may be found at the following address: <http://www.directives.doe.gov>

ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
9/29/1995	Order	130.1		Budget Formulation
9/4/2008	Manual	142.2-1	Chg. 1 (Admin Chg.) 6/27/2013	Manual for Implementation of the Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
12/15/2006	Order	142.2A	Chg. 1 (Admin Chg.) 6/27/2013	Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
1/15/2021	Order	142.3B		Unclassified Foreign National Access Program
12/21/2021	Order	150.1B		Continuity Programs
8/11/2016	Order	151.1D	Chg.1 (Minor Chg.) 10/4/2019	Comprehensive Emergency Management System
6/27/2007	Order	153.1		Departmental Radiological Emergency Response Assets
12/23/2008	Order	200.1A	Chg.1 (Minor Chg.) 01/13/2017	Information Technology Management
1/7/2005	Order	203.1		Limited Personal Use of Government Office Equipment Including Information Technology
5/15/2019	Order	205.1C	Chg. 1 (LtdChg) 2/3/2022	Department of Energy Cybersecurity Program
1/16/2009	Order	206.1	Chg.1 (Minor Chg.) 11/1/2018	Department of Energy Privacy Program
2/19/2013	Order	206.2		Identity, Credential and Access Management (ICAM)
4/8/2011	Order	210.2A		DOE Corporate Operating Experience Program
9/27/2016	Order	221.1B		Reporting Fraud, Waste, and Abuse to the Office of Inspector General
2/25/2008	Order	221.2A		Cooperation with the Office of Inspector General
3/4/2011	Order	225.1B		Accident Investigations
12/21/2015	Order	227.1A	Chg. 1 (Admin Chg.) 1/21/2020	Independent Oversight Program

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ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
6/27/2011	Order	231.1B	Chg. 1 (Admin Chg.) 11/28/2012	Environment, Safety and Health Reporting
1/17/2017	Order	232.2A	Chg.1 (Minor Chg.) 10/04/2019	Occurrence Reporting and Processing of Operations Information
12/13/2010	Order	241.1B	Chg. 1 (Admin Chg) 4/26/2016	Scientific and Technical Information Management
2/7/2022	Order	243.1C		Records Management Program
2/23/2011	Order	252.1A	Chg. 1 (Admin Chg.) 3/12/2013	Technical Standards Program
11/19/2009	Order	313.1		Management and Funding of the Department's Overseas Presence
10/18/2007	Order	341.1A Parts: 1.(a- b) 2.a(1-3) 2.a(4)(a- h)		Federal Employee Health Services
9/30/1996	Order	350.1	Chg. 7 (LtdChg.) 2/19/2020	Contractor Human Resource Management Programs
8/17/2009	Order	410.2	Chg. 1 (Admin Chg.) 4/10/2014	Management of Nuclear Materials
1/4/2017	Order	411.2		Scientific Integrity
1/4/2017	Policy	411.2A		Scientific Integrity Policy
10/22/2015	Order	413.2C	Chg.1 (Minor Chg.) 8/2/2018	Laboratory Directed Research and Development
11/29/2010	Order	413.3B	Chg. 6 (Minor Chg.) 1/12/2021	Program and Project Management for the Acquisition of Capital Assets

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ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
4/25/2011	Order	414.1D	Chg. 2 (LtdChg.) 9/15/2020	Quality Assurance
12/3/2012	Order	415.1	Chg. 2 (Minor Chg.) 1/17/2017	Information Technology Project Management
12/4/2012	Order	420.1C	Chg.3 (LtdChg.) 11/14/2019	Facility Safety Compliance Note: CRD Chapters 1, 3, and 5 only are applicable to BNL Hazardous Category 1, 2, or 3 nuclear facilities. Currently these type of nuclear facilities do not exist at BNL. The requirements of DOE O 420. 1C Chg. 2 CRD Chapters 2 (Fire Protection) and 5 (Natural Phenomena Hazards Mitigation) apply to BNL
7/21/2011	Order	420.2C		Safety of Accelerator Facilities
6/29/2010	Order	422.1	Chg. 4 (LtdChg.) 2/3/2022	Conduct of Operations Compliance Note: DOE Order 422.1 Chg. 4 and the CRD are applicable to Hazardous Category 1, 2, or 3 nuclear facilities and the following BNL departments/divisions/facilities, including all operating groups within each: Collider Accelerator Department (all facilities), Energy and Utilities Division (Central Steam Facility, Central Chilled Water facility, The Potable Water Treatment Facility and the Waste Water Treatment Facility), the NSLS II Facility, the Waste Management Facility and the Accelerator Test Facility.
11/25/2016	Policy	434.1B		Conduct and Approval of Select Agent and Toxin Work at Department of Energy Sites
7/9/1999	Order	435.1	Chg. 2 (Admin Chg.) 1/11/2021	Radioactive Waste Management
7/9/1999	Manual	435.1-1	Chg. 3 (LtdChg.) 1/11/2021	Radioactive Waste Management Manual
5/2/2011	Order	436.1		Departmental Sustainability
12/11/2020	Order	437.1		Bridge and Tunnel Management
6/15/2011	Order	440.2C	Chg. 2 (LtdChg.) 9/15/2020	Aviation Management and Safety

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3/7/2008	Manual	441.1-1	Chg. 1 (Admin Chg.) 02/24/2016	Nuclear Material Packaging Manual
1/31/2019	Order	442.1B		Department of Energy Employee Concerns Program
7/29/2011	Order	442.2	Chg.1 (Pg.Chg.) 10/5/2016	Differing Professional Opinions for Technical Issues Involving Environment, Safety and Health
11/26/2019	Order	443.1C		Protection of Human Research Subjects
7/21/2011	Order	452.8		Control of Nuclear Weapon Data
7/15/2016	Order	456.1A		The Safe Handling of Unbound Engineered Nanoparticles
2/11/2011	Order	458.1	Chg. 4 (LtdChg.) 9/15/2020	Radiation Protection of the Public and the Environment
12/20/2016	Order	460.1D		Hazardous Materials Packaging and Transportation Safety
12/22/2004	Order	460.2A		Departmental Material Transportation and Packaging Management
6/4/2008	Manual	460.2-1A		Radioactive Material Transportation Practices Manual
11/23/2016	Order	470.3C	Chg. 1 (LtdChg.) 9/9/2020	Design Basis Threat (DBT) Order
7/21/2011	Order	470.4B	Chg. 3 (LtdChg.) 9/23/2021	Safeguards and Security Program
6/2/2014	Order	470.5		Insider Threat Program
9/2/2015	Order	470.6	Chg.1 (Minor Chg.) 1/11/2017	Technical Security Program
3/1/2010	Order	471.1B		Identification and Protection of Unclassified Controlled Nuclear Information

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ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
6/20/2011	Order	471.6	Chg. 3 (Admin Chg.) 9/12/2019	Information Security
2/3/2022	Order	471.7		Controlled Unclassified Information
7/21/2011	Order	472.2	Chg. 1 (Pg Chg.) 7/9/2014	Personnel Security
8/30/2021	Order	473.1A		Physical Protection Program
8/30/2021	Order	473.2A		Protection Force Operations
6/27/2011	Order	474.2	Chg. 4 (Pg.Chg.) 9/13/2016	Nuclear Material Control and Accountability
12/10/2004	Order	475.1		Counterintelligence Program
10/3/2014	Order	475.2B		Identifying Classified Information
12/20/2018	Order	481.1E	Chg. 1 (LtdChg.) 12/13/2019	Strategic Partnership Projects [Formerly Known as Work for Others (Non-Department of Energy Funded Work)]
12/20/2016	Order	483.1B	Chg. 2 (LtdChg.) 12/13/2019	DOE Cooperative Research and Development Agreements
8/17/2006	Order	484.1	Chg. 2 (Admin Chg.) 6/30/2014	Reimbursable Work for the Department of Homeland Security
12/13/2019	Policy	485.1A		Foreign Engagements with DOE National Laboratories
9/4/2020	Order	486.1A		Foreign Government Sponsored or Affiliated Activities
1/7/2021	Order	520.1B		Financial Management and Chief Financial Officer Responsibilities
8/2/2018	Order	522.1A		Pricing of Departmental Materials and Services
5/2/2019	Order	550.1	Chg. 1 (LtdChg.) 12/13/2019	Official Travel
3/30/2012	Order	580.1A	Chg. 1 (Admin Chg.) 10/22/2012	Department of Energy Personal Property Management Program