Introduction

This is a print version of the event. It contains a summary of the event and its contents. The response shown below is the last accepted response. If there is no accepted response, the latest draft response will be shown. Please review this for correctness and mark it up as necessary.

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Overview		
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Name	Initial
1 Introduction	
1.1 Company Information Oak Ridge National Laboratory (ORNL) is the largest US Department of Energy science and energy laboratory, conducting basic and applied research to deliver transformative solutions to compelling problems in energy and security. ORNL is managed and operated by UT-Battelle, LLC (the Company). ORNL's diverse capabilities span a broad range of scientific and engineering disciplines, enabling the Laboratory to explore fundamental science challenges and to carry out the research needed to accelerate the delivery of solutions to the marketplace. ORNL supports DOE's national missions of:	
 Scientific discovery—We assemble teams of experts from diverse backgrounds, equip them with powerful instruments and research facilities, and address compelling national problems; Clean energy—We deliver energy technology solutions for energy-efficient buildings, transportation, and manufacturing, and we study biological, environmental, and climate systems in order to develop new biofuels and bioproducts and to explore the impacts of climate change; and Security—We develop and deploy "first-of-a-kind" science-based security technologies to make the world a safer place. 	-
 1.2 How to respond to the RFP 1. Once you access the project, please review the event details. You can click on "All content" in order to see all the sections together. 2. Review and accept the Agreement and/or Prerequisite(s) at the project level 3. Enter your response and click on Submit entire response. Please note that unless you click on the "Submit" button, your response will not be received by the customer 	
1.3 ORNL General Solicitation Instructions See Attachment	gen-solic-instruct-ext BSD-CS-2058.pdf
2 Event Information	
2.1 Contacting Help Desk / Product Support Please use the following information to contact the SAP Ariba Helpdesk for technical and product support: US Toll Free: 1 866 218 2155 US: 1 412 222 6153 Europe: 44 20 7187 4144 Asia: 65 6311 4745 Webform 1. Log into the site 2. Click "Help Center" > Support at the bottom 3. Click "Get help by live chat"	
2.2 Team Contact Info During Event Purchasing Contact: For the Bid Inquiry process, the primary point of contact from ORNL is: Kevin Nelson (865) 341-3520 or at nelsonkr@ornl.gov.	
2.3 Supplier Training Suppliers can access the SAP Ariba Sourcing training guides by clicking the Help center link in the upper right corner of the screen. The three training guides take less than one hour to complete.	
3 RFP Package	
3.1 Project Specifications UT-Battelle, LLC (the Company) is the Management & Operations contractor for the Oak Ridge National Laboratory (ORNL) located in Oak Ridge, TN and is seeking to procure nine (9) Solenoid & Vacuum Assemblies with an option for up to an additional eighteen (18) units. Required delivery schedule will be finalized at time of purchase order award, however	

when this document is issued, the assemblies will have staggered deliveries with the first 7 estimated to be delivered in the 3rd & 4th quarters of calendar year 2024 with the remaining 2 delivered in the 1st quarter of calendar year 2025. Should the optional units be procured, they could have staggered deliver dates in 2025 & 2026. The assemblies will be delivered to Oak Ridge National Laboratory (ORNL) in support of a DOE funded project. The company is currently constructing a new facility to house multiple Electromagnetic Isotope Separators with an estimated construction completion in late 2025. In order to expedite production capabilities within the facility, the company is procuring the necessary components in parallel with facility construction. Each assembly consists of a custom stainless-steel frame and sheet metal fabrication that supports a vacuum chamber with multiple access and instrumentation ports as well as two (2) internal linear shifts, three (3) large solenoid magnets, two (2) high voltage breaks, electronics, and support utilities (water, nitrogen, power). Utility requirements include process water, compressed air, and nitrogen. The design of this equipment is mature with functional prototypes in operation. Any design, material, or component modification requests must be compatible with existing equipment and approved in writing by the Company. This assembly is a component of a larger system for production at the ORNL. The specifications, associated drawings, & 3D CAD model identified below will outline physical and functional requirements of the assembly, define the process for refining the final design, identifies required verifications tests and provides recommended items to be procured & integrated into the assembly by the Seller. Seller shall also be responsible for complying with listed codes & standards and providing any ancillary items necessary to successfully complete required inspections & tests (e.g., external power supplies, etc). The following components identified in the equipment specification & design drawings will be provided by the Company to the Seller for integration into the assembly. Seller shall be responsible for all connections between these components and the solenoid & vacuum assembly and for completely testing these components as an integrated component of the full assembly: Solenoid Magnet (0058A00001-C - ION SOURCE SOLENIOD MAGNET ASSEMBLY) Vacuum Chamber (EX-01-22000 - ION SOURCE VACUUM CHAMBER) The following additional items and work are not included in the scope of this Statement of Work and will be acquired or supplied by the Company and installed at the Company facility by another entity or by the Company. The additional items/work will need to be considered in assembly and/or completion of the Solenoid & Vacuum Assemblies. Items and work not included in this scope: Port Aligner (LK-PA200T-20152-002 - 10CF PORT ALIGNER, 200MM BORE, TAPPED HOLES) and installation at Company facility. *Note: the actual Statement of Work and Technical Specifications and other attachments are for Controlled Unclassified Information (CUI), Specified Export Controlled (SP-EXPT), and Proprietary Information (PROPIN). CUI//SP-EXPT/PROPIN documents will be password protected and will be sent via email to the qualified potential Offerors. The actual Statement of Work, Technical Specifications, and other attachments will aid in your proposal pricing; please download and review these documents prior to submitting your proposal. Attachment A - EX-01-ES0065-00 - SOW - Solenoid and Vacuum Assembly-CUI-SP-EXPT-PROPIN Attachment B – EX-00-ES00086 R0 General Project Technical Specification Attachment C - EX-01-ES00064-00 Equip Spec - Solenoid and Vacuum Assembly-CUI-SP-EXPT-PROPIN Attachment D - EX-01-00100 ION SOURCE WITH SUPPORT COMPONENTS-A-CUI-SP-EXPT-PROPIN Attachment E - EX-01-ES00066-01 Solenoid and Vacuum Assembly I and C Bill Of Materials-CUI-SP-EXPT-PROPIN 3.2 North American Industry Classification System (NAICS) Code The product classification for this procurement under the North American Industry Classification System (NAICS) is Code# 334516 - Analytical Laboratory Instrument Manufacturing - 1000 employees. 4 Pricing and Cost Breakdowns Pricing of the Solenoid and Vacuum Assemblies should be based on manufacturing of nine (9) Assemblies. 4.1 Solenoid and Vacuum Assemblies - Base Units Solenoid and Vacuum Assemblies (also referred to as a Assembly) *Pricing to be input per assembly or unit cost for individual Solenoid and Vacuum Assembly, and should include shipping cost in the unit rate. If shipping cost needs to be listed out as a separate line item, please include the shipping cost in the breakdown of costs in your Business Management Proposal. Price 9 each Quantity

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Extended Price	
Savings 4.3 Salamaid and Vaccount Assambling Outland	
4.2 Solenoid and Vacuum Assemblies - Optional Solenoid and Vacuum Assemblies (also referred to as a Assembly) *Pricing to be input per assembly or unit cost for individual Solenoid and Vacuum Assembly, and should include shipping cost in the unit rate. If shipping cost needs to be listed out as a separate line item, please include	
the shipping cost in the breakdown of costs in your Business Management Proposal.	
Price	
Quantity	18 each
Extended Price	
Savings	
5 Proposal Format - Contract Type	
5.1 <u>Prime Flowdowns</u> UT-Battelle, LLC Prime Supplemental Flowdown Document Clauses [Additional Terms & Conditions for Subcontracts/Purchase Orders under Prime Contract No. DE-AC05-000R22725] is available in the "Documents Index" and then "Special Articles and Forms" section of our web site at https://contracts.ornl.gov/.	
5.2 General Terms and Conditions	
5.2.1 What General Terms and Conditions need to be used?	Fixed Price
5.2.2 General Terms and Conditions - Fixed Price Fixed Price - Terms and Conditions for this Subcontract can be found on our website at https://contracts.ornl.gov/ in the "Documents Index" and then "Terms and Conditions" section.	
6 What ORNL proposal format to use?	Fixed Price
7 Proposal Format - Fixed Price	
8 Proposal Format - Clauses	
8.1 Options	
 The Company shall have the option to purchase additional quantities of items or services described in the Specification/Statement of Work. The offeror should include option prices in the appropriate area of the Ariba solicitation. It should be understood by the offeror that the Company may not exercise any or all 	
options which are not included in the base award. The award may be made by the Company for the initial quantity only. It is important that the foregoing be considered by the offeror in preparing and submitting separate prices for the initial order quantity and for each individual option.	
 Offers will be evaluated for purposes of award by adding the total price for all option quantities to the total price for the initial quantity. Evaluation of options will not obligate the Company to exercise the option or options. 	
*Note for Optional Items: The Company may have the option(s) to purchase up to eighteen (18) additional units as described in the Technical Specification. The optional units may be identical to the original scope or could include minor design modifications. Pricing for Optional units shall be further separated to indicate any "component" pricing if applicable. The optional units could be purchased in multiple orders with varying schedules & quantities. There is also no guarantee of additional orders beyond the original scope.	
**Optional pricing may be revised in the event of design revisions or minor design changes during the fabrication of the original scope or unit fabrication to original specification.	
8.2 Preparation of Offers must be:	
 Submitted on the forms furnished by the Company or on copies of those forms within the Ariba system; and 	

Digitally signed. The person signing an offer must be able to bind their company to the proposal they are submitting and initial each erasure or change made to any form.

If this solicitation is amended, all terms and conditions that are not amended remain unchanged.

8.3 Technical and Business Management Proposals

DO NOT SUBMIT EXPORT CONTROL INTO THE ARIBA SYSTEM. To aid our evaluation, your proposal must be in two separate files submitted via Ariba; a Technical Proposal and a Business Management Proposal. The file name, as well as the first page of each proposal document, should identify it as the Technical Proposal or the Business Management Proposal and include the offeror's name and the solicitation number. Your proposal must be submitted electronically. NOTE: Each email is restricted to 10MB in total size by the Ariba server.

8.3.1 (b) Format for the Technical Proposal.

DO NOT SUBMIT EXPORT CONTROL INTO THE ARIBA SYSTEM.

8.3.1.1 The Technical Proposal should not exceed 25 pages (excluding personnel resumes and quality program or manual documents). The Technical Proposal must be in the following format: Table of Contents. 1.Cover Page 2.Table of Contents 3.Technical Proposal addressing each Evaluation Criteria If your proposal documents contain Export Controlled documents, please leave a "Placeholder" document in your proposal package, and send the documents under password protection via email to nelsonkr@ornl.gov. Please attach your Technical Proposal that addresses each of the evaluation criteria below: Criteria 1: Manufacturing/Fabrication Criteria 2: Company Experience/Past Performance Criteria 3: Proposed Improvements and Exception List Criteria 4: Personnel Experience and Qualifications Criteria 5: QA Program (QAP) Criteria 6: Codes and Standards Compliance Criteria 7: Critical Tolerances Criteria 8: Project Management Criteria 1: Manufacturing/Fabrication Plan All Offerors shall be evaluated on the feasibility and validity of their detailed manufacturing capability. The Company will evaluate Offeror's fabrication and/or manufacturing plan to determine the Offeror's capability and understanding of meeting the requirements of the project specifications and detailed Statement of Work. Offerors shall indicate procedures, plans, and/or equipment in place to ensure product consistency & repeatability. Company shall evaluate Offeror's current throughput capability & shop capacity as it relates to completing original scope plus all options. This information will be used to analyze suppliers' risk of meeting project schedule requirements. Offerors shall indicate if additional facility and/or personnel resources would be required to perform the work as scheduled. Offeror should also include any relevant supply chain issues or other difficulties experienced that will be applicable to project execution. Criteria 2: Company Experience/Past Performance The Offeror must have a demonstrated track record for reliability that can be independently verified by existing customers. The Offeror must have successfully completed at least two (2) projects for the design, fabrication, and performance testing of similar assemblies. References, including current contact information for client technical lead, project scope and project location shall be provided by the Offeror. The Company may solicit, at its discretion, from available sources relevant information concerning past performance and experience for use in the evaluation process and the potential impact to the project. The Company will evaluate the degree to which the Offeror's proposal indicates successful past performance in performing similar relevant engineering design, product manufacturing services, product reliability and customer service. The Offeror's proposal must demonstrate an organization and management approach that ensures successful performance of the requirements of the Specifications. Criteria 3: Proposed Improvements and Exception List This criterion will review any proposed improvements to design, cost and/or schedule and the list of exceptions to stated requirements to determine achievability and practicality. This will also demonstrate both the level to which the offeror understands the requirements and thoroughness of their review of the specifications. Exceptions to requirements after award will require an approved deviation request. Criteria 4: Personnel Experience and Qualifications This criterion will evaluate the degree to which your proposal demonstrates the requisite skills, qualifications, longevity as a team, and experience required of the key personnel; quality of performance by individuals on past projects of a similar nature; expertise and accomplishments of key personnel in other similar work environments; and proven ability to provide the technical assistance required. Single Point Failures: Indicate any key personnel or resources whose abrupt and extended absence would cause disruption to the production capabilities. Define mitigation plan if this scenario exists. Criteria 5: QA Program (QAP) The Company will evaluate the Offeror's QA Program to ensure that

it meets the requirements of this procurement. If determined necessary by the Company in order to verify or complete its evaluation, any Offeror may be subject to an on-site inspection to review the vendor's quality assurance program and confirm that the Offeror/Offeror's subcontractors possess the expertise, facilities, and equipment sufficient to fabricate the components as required in the Specification and Drawings. Offeror shall be compliant with ISO-9001 or equivalent QAP documentation. Criteria 6: Codes & Standards Compliance The company shall evaluate the Offeror's ability to meet the codes & standards defined on the drawings and specifications. Offeror shall provide evidence of identified certifications necessary to meet design requirements. If that portion of work is to be subcontracted to another facility, those certifications are required. Criteria 7: Critical Tolerances The company will evaluate the Offeror's ability to meet the tolerances defined on the drawings and specification. Offeror shall provide evidence of similar projects with same or tighter tolerances and how those were met. Offeror shall also identify measurement equipment and capabilities. Criteria 8: Project Management The company will evaluate the Offeror's ability to effectively manage the project and schedule. Identify the tools used to establish a detailed & accurate schedule. Include an example of typical schedule & status updates to be provided. Offeror shall provide sufficient details & justification for the proposed schedule. Schedule shall also factor in reasonable time for documentation submittals & approvals as required. Offeror shall provide material control plan that indicates how inventory is procured, controlled, tracked, & issued. Please attach your Technical Proposal:

8.3.2 (c) Format for Business Management Proposal.

DO NOT SUBMIT EXPORT CONTROL INTO THE ARIBA SYSTEM.

8.3.2.1 The Business Management Proposal must be in the following format: (1) Price Information (A) Price Proposal. You must include your price proposal in this section. (B) You must include in your Price Proposal the data shown in the format indicated in Table 15-2 of FAR 15.408 or the Company's Contract Pricing Proposal forms. Provide a full breakdown of the proposed price with complete supporting data, as follows: If Price Proposals are to be submitted in other formats; e.g., Excel Labor Rate Spreadsheets; or if additional information concerning the proposed price is necessary; such as: A full breakdown of the proposed price must be provided with complete supporting data, as follows: (i)Labor - All direct labor by labor category, hours, and fully burdened rates. Identify each labor category and include a brief job description and minimum education and experience for each labor category proposed. (ii)Subcontractors - Include proposals. Labor - All subcontracted labor must identify labor category, hours, and fully burdened rates. Identify each subcontractor labor category and include a brief job description and minimum education and experience for each subcontractor labor category proposed. If lower tier subcontractor will travel, furnish equipment, materials, supplies, etc. additional quotations are required. (iii)Travel - Include details on number of trips, origin and destination of traveler, number of travel days, number of travelers, airfare costs, lodging costs, meals and incidental costs, automobile rental costs, and/or POV mileage and applicable rates. (iv)Materials and Equipment - Include breakdown of each item along with supporting documentation for prices proposed; e.g., quotes from suppliers and/or catalog cut sheets with pertinent pricing. Include any other information necessary to complete your proposal. The structure of your price proposal should mirror the task structure in the SOW and the technical proposal. Please attach your Business Management Proposal:

8.3.2.2 Foreign End Products The Offeror shall list as foreign end products those end products manufactured outside of the United States that do not qualify as domestic end products. Please list all foreign end products proposed and their country of origin. (Attach a separate file if necessary.)

8.3.2.3 Offer Expiration

Proposal/Offers shall be valid through the estimated contract date listed in the RFP or for at least 90 days.

8.3.2.4 (4) Other Information. You must include in this section:

8.3.2.4.1 Exceptions Any exceptions that you take to the provisions of this solicitation must be in a redlined word document in order to be considered. Be advised that taking exceptions will be taken into account in evaluating your proposal and may result in your offer being considered non-responsive.

8.3.2.4.2

Representations and Certifications

A completed, signed copy of the form entitled "Representations and Certifications - Abbreviated 11.15.2023". If you are a domestic organization that does not have a SAM.gov registration, you may be asked to complete a full (not abbreviated) version of the Representation and Certification.	
8.3.2.4.3 Exhibit 2 - Representation of Limited Rights Data and Restricted Computer Software A completed, signed copy of the form entitled "Exhibit 2 - Representation of Limited Rights Data and Restricted Computer Software".	
8.4 Certified Cost or Pricing Data DO NOT SUBMIT IF YOU ARE EXEMPTED FROM THIS REQUIREMENT. (a) If you are selected for an award exceeding \$2M you will be required to certify that cost or pricing data were accurate, complete and current at the time agreement on price/cost was reached.	
8.5 Number of Awards (a) The company intends to make one or more awards. NOTE: All award documents will be digitally signed by the company.	
8.6	
Unique Entity ID (UEI) [generated at SAM.gov]	
(a) The offeror shall enter below the Unique Entity ID number that identifies the offeror's name and address exactly as stated in the offer. (b) If the offeror does not have a UEI number, it should contact SAM.gov directly to obtain one. SAM.gov is an official website of the United States government. There is no charge to register or maintain your entity registration in SAM.gov. You can get a Unique Entity ID for your organization without having to complete an entity registration. Please provide your Unique Identity ID Number:	
8.7 Access to ORNL Site	
(a) Vendor personnel may come onto the ORNL site only if they have a current ORNL badge or a visitor's pass. (b) Persons who need visitors' passes to deliver offers or participate in site visits must provide their e-mail address to the Procurement Officer on a workday at least 24 hours in advance. (c) The SA will send a link to a secure portal (via-email) where vendor personnel provide the following information: (i) Full name, (ii) employer, (iii) social security number, (iv) date of birth, (v) gender and (vi) country of citizenship.	
(d) Visitors' passes must be picked up at the Visitor Center, Building 5200. Photo identification is required.	
8.8 Withdrawal of Offers (a) Offers may be withdrawn by written notice received at any time before award. Offers may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the offer before award.	
8.9 Questions (a) Questions concerning this solicitation must be submitted in writing via Ariba Message Board. (b) Information given to one prospective offeror will be furnished to all prospective offerors if lack of the information would be prejudicial to them.	
9 Sales Tax. DO NOT INCLUDE TENNESSEE SALES OR USE TAX IN INVOICED AMOUNTS. The Company is not a tax exempt entity; however, the Company has a Direct Pay Permit, whichallows us to remit applicable use taxes directly to the Tennessee Department of Revenue. A copy of the ORNL Direct Pay Permit is available at: https://contracts.ornl.gov/ in the "Documents Index" and then "Special Articles and Forms" section. Construction Contractors are liable for sales and use tax that may be due, if any, on goods or services purchased and/or used in the performance of the agreement with the Company. These taxes may be included in the invoiced amounts as part of the	

materials costs. However, do not add Tennessee sales/use tax to labor, installation, or other items. 10 Key Personnel (a) The following personnel are considered to be essential to the work being performed hereunder: Provide List (b) The Seller shall ensure that personnel (including lower-tier subcontractor personnel) are fully qualified and have in place all the requisite skills necessary to perform the work per the Agreement qualifications. If the Company determines that the Seller has not provided personnel that meets those qualifications then the Company may do one of the following to remedy the situation: 1. Reject the proposed individual and require the Seller to provide a qualified individual within two (2) days; 2. If the individual is already working under the Agreement, require the Seller to adjust the labor rate downward based on the experiences of the individual provided. (c) Before removing, replacing, or diverting any of the listed or specified personnel, the Seller must: 1. Notify the Procurement Officer reasonably in advance; 2. Submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this agreement; and 3. Obtain the Procurement Officer's written approval. (d) If one (1) or more of the personnel, for whatever reason, becomes, or is expected to become, unavailable for work under this agreement for a continuous period exceeding thirty (30) work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the Seller shall immediately notify the Procurement Officer and shall, subject to the concurrence of the Procurement Officer, promptly replace the personnel with personnel of at least substantially equal ability and qualifications. 11 Proposal Format - Variable Clauses and Special Provisions 11.1 Basis of Award - Tradeoff (a) An award resulting from this solicitation will be made to the responsible offeror that submits a proposal that is determined to provide the best value to the Company considering both technical merit and cost/price. (b) The technical evaluation process consists of the proposals being reviewed, evaluated and rated using a graded system that assesses the degree of compliance with the Technical Criteria requirements and the level-of-performance risk. (c) The Technical Criteria are listed below: Criteria 1: Manufacturing/Fabrication Criteria 2: Company Experience/Past Performance Criteria 3: Proposed Improvements and Exception List Criteria 4: Personnel Experience and Qualifications Criteria 5: QA Program (QAP) Criteria 6: Codes and Standards Compliance Criteria 7: Critical Tolerances Criteria 8: Project Management The criteria are listed in descending order of importance. The objective is to determine the Offeror/Proposal that provides the greatest value to the Company while minimizing schedule and equipment performance risks, with total price including option(s) and other cost factors being less important than technical merit. A determination of total cost will include, but not be limited to: (a) transportation, (b) travel, (c) coordination of contract performance, and (d) technical interface challenges. The Company will determine which proposed pricing, including options, represents the best value to the Company after review of all offers. (d) Each Technical Criteria will be graded Yes against each of the Technical Criteria, based on the following ratings: (1) Blue - Proposal exceeds the performance or capability requirements necessary for acceptable subcontract performance; provides little or no risk to the Company. (2) Green - Proposal meets the performance or capability requirements necessary for acceptable subcontract performance; provides low to moderate risk to the Company. (3) Yellow - Proposal marginally meets the performance or capability requirements necessary for acceptable subcontract performance; provides moderate to high risk to the Company. (4) Red - Proposal fails to meet the performance or capability requirements necessary for acceptable subcontract performance; provides unacceptable risk to the Company. (e) An overall Technical Rating will also be assigned based on the individual ratings and their relative importance. The overall color rating may include increments represented as plus (+) or minus (-). (f) In addition to the evaluation of technical criteria, cost/price will also be evaluated. In determining the best value, the total cost/price, including options (if applicable) and other cost factors, is considered to be less important than technical merit. If applicable, a determination of total cost/price will include, but not be limited to: (1) transportation, (2) travel, (3) coordination of contract performance, and (4) technical interface challenges. (g) We may solicit information concerning your record of performance and use it in evaluation. 11.2 Notice of Total Small Business Set-Aside (June 2007) (a) Offers are solicited only from small business concerns. Offers received from concerns that are not small business concerns will be Yes rejected. Any award resulting from this solicitation will be made to a small business concern. (b) Definition. "Small business concern," as used in this notice, means a concern, including its

affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the applicable size standard in paragraph (c) below. (c) Size Standards. (1) Nonmanufacturers. A concern submitting an offer in its own name that proposes to furnish an end product it did not manufacture, is a small business if it has no more than 500 employees. This paragraph does not apply to construction or service contracts. (2) Other Offerors. An offeror other than a nonmanufacturer is a small business if: Its "number of employees," as defined in 13 CFR 121.106, does not exceed 1000 persons. (3) The product or service classification used to determine this size standard was North American Industry Classification System (NAICS) Code 334516.

11.3 If this solicitation includes either the "Patent Rights - Acquisition by the Government" or the "Patent Rights - Retention by the Seller (Short Form)" clause, and you have requested an advance waiver of patent rights, a copy of the form (attachments are not necessary) that you submitted to the DOE Patent Counsel. (See the form entitled "Exhibit 2B - Petition for Advance Waiver of Patent Rights.") [Attachment, BSD-CS-2001, BSD-CS-2003]

11.4 Milestone Payment Clause (May 2010)

Milestone payments shall be made to the Seller when requested at the completion of the Agreement stipulated performance milestones, upon the following terms and conditions: (a) Amount of Payments. Each milestone payment shall be the amount set forth in this Agreement for completion of the respective milestone. The Seller is required to submit with each request for payment, certification of the completion of the performance milestone for which the payment is requested. Verification of the completed milestone may be made by the Company or the Government or their designee(s). (b) Title. (1) Title to the property described in this paragraph (b) shall vest in the Government to the extent and in the value of progress payments made to the Seller. Vestiture shall be immediately upon the date of this Agreement, for property acquired or produced before that date. Otherwise, vestiture shall occur when the property is or should have been allocable or properly chargeable to this Agreement. (2) "Property," as used in this clause, includes all of the below-described items acquired or produced by the Seller that are or should be allocable or properly chargeable to this Agreement under sound and generally accepted accounting principles and practices. (i) (ii) Parts, materials, inventories, and work in process; Special tooling and special test equipment to which the Government is to acquire title under any other clause of this Agreement; (iii) Nondurable (i.e., non-capital) tools, jigs, dies, fixtures, molds, patterns, taps, gauges, test equipment, and other similar manufacturing aids, title to which would not be obtained as special tooling under subparagraph (ii) above; and (iv) Drawings and technical data, to the extent the Seller or subcontractors are required to deliver them to the Company by other clauses of this Agreement. (3) Although title to property is in the Government under this clause, other applicable clauses of this Agreement, e.g., the termination or special tooling clauses, shall determine the handling and disposition of the property. (4) The Seller may sell any scrap resulting from production under this Agreement without requesting the Company's approval. (5) To acquire for its own use or dispose of property to which title is vested in the Government under this clause, the Seller must obtain the Company's advance approval of the action and the terms. The Seller shall repay to the Company any amount of milestone payments allocable to the property. Repayment may be by cash or credit memorandum. (6) When the Seller completes all of the obligations under this Agreement, title shall vest in the Seller for all property (or the proceeds thereof) not (i) delivered to, and accepted by, the Company under this Agreement; or (ii) incorporated in supplies delivered to, and accepted by, the Company under this Agreement and to which title is vested in the Government under this clause. (7) The terms of this Agreement concerning liability for Government-furnished property shall not apply to property to which the Government acquired title solely under this clause. (c) Control of Costs and Property. The Seller shall maintain an accounting system and controls adequate for the proper administration of this clause. (d) Reports and Access to Records. The Seller shall (1) furnish promptly such relevant reports, certificates, financial statements, and other information as may be reasonably requested by the Company, and (2) give the Government and the Company reasonable opportunity to examine and verify its books, records, and accounts. (e) Special Provisions Regarding Default. If this Agreement is terminated pursuant to the default provisions of this Agreement (1) the Seller shall, upon demand, repay the Company the amount of milestone payments paid to the Seller, and (2) with respect to all property as to which the Company elects not to require delivery under the default provisions of this Agreement, title shall vest in the Seller upon repayment of milestone payments, and the Company shall be liable for no payment except as provided by the default

provisions of this Agreement. (f) Reservations of Rights. The rights and remedies of the Company provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Agreement. No payment, or vesting of title pursuant to this clause, shall excuse the Seller from performance of its obligations under this Agreement, nor constitute a waiver of any of the rights and remedies of the parties under this Agreement. No delay or failure of the Company in exercising any right, power or privilege under this clause shall affect any such right, power or privilege, nor shall any single or partial exercise thereof preclude or impair any further exercise thereof or the exercise of any other right, power or privilege of the Company.

11.5 Exhibit 9, Technical Data (Jun 2011)

1. RIGHTS IN DATA - GENERAL (a) Definitions. (1) "Computer data bases," as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software. (2) "Computer software," as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the computer program to be produced, created, or compiled. The term does not include computer data bases. (3) "Data," as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. For the purposes of this clause, the term does not include data incidental to the administration of this subcontract, such as financial, administrative, cost and pricing, or management information. (4) "Form, fit, and function data," as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software. (5) "Limited rights data," as used in this clause, means data, other than computer software, developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. The Government's rights to use, duplicate, or disclose limited rights data are as set forth in the Limited Rights Notice of subparagraph (g)(3) of this clause if incorporated into this subcontract. (6) "Restricted computer software," as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software; including minor modifications of any such computer software. The Government's rights to use, duplicate, or disclose Restricted Computer Software are as set forth in the Restricted Rights Notice of subparagraph (g)(4) of this clause if incorporated into this subcontract. (7) "Technical data," as used in this clause, means recorded data, regardless of form or characteristic, that are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base. (8) "Unlimited rights," as used in this clause, means the rights of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, including by electronic means, and perform publicly and display publicly, in any manner, including by electronic means, and for any purpose whatsoever, and to have or permit others to do so. (b) Allocation of rights. (1) Except as provided in paragraph (c) of this clause, the Government shall have unlimited rights in- (i) Data first produced in the performance of this subcontract; (ii) Form, fit, and function data delivered under this subcontract; (iii) Data delivered under this subcontract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this subcontract; and (iv) All other data delivered under this subcontract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause. (2) The Seller shall have the right to- (i) Assert copyright in data first produced in the performance of this subcontract to the extent provided in paragraph (c)(1) of this clause; (ii) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Seller in the performance of this subcontract, unless provided otherwise in paragraph (d) of this clause; (iii) Substantiate the use of, add, or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and (iv) Protect from

unauthorized disclosure and use those data that are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause. (c) Copyright. (1) Data first produced in the performance of this subcontract. Exhibit 9 – Technical Data UT-B Contracts Div June 2011 Page 2 of 3 ex9-june11.doc (i) Unless provided otherwise in paragraph (d) of this clause, the Seller may, without prior approval of the Government, assert copyright in scientific and technical articles based on or containing data first produced in the performance of this subcontract and published in academic, technical or professional journals, symposia proceedings, or similar works. The prior, express written permission of the Government is required to assert copyright in all other data first produced in the performance of this subcontract. (ii) When authorized to assert copyright to the data, the Seller shall affix the applicable copyright notices of 17 U.S.C. 401 or 402, and an acknowledgement of Government sponsorship (including the number of the Company's prime Government contract and the number of this subcontract). (iii) For data other than computer software, the Seller grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable, worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly by or on behalf of the Government. For computer software, the Seller grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable, worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly (but not to distribute copies to the public) by or on behalf of the Government. (2) Data not first produced in the performance of this subcontract. The Seller shall not, without prior written permission of the Company, incorporate in data delivered under this subcontract any data not first produced in the performance of this subcontract unless the Seller- (i) Identifies the data; and (ii) Grants to the Government, or acquires on its behalf, a license of the same scope as set forth in paragraph (c)(1) of this clause or, if such data are restricted computer software, the Government shall acquire a copyright license as set forth in paragraph (g)(4) of this clause if incorporated into this subcontract, or as otherwise provided in a collateral agreement incorporated in or made part of this subcontract. (3) Removal of copyright notices. The Company and the Government will not remove any authorized copyright notices placed on data pursuant to this paragraph (c), and will include such notices on all reproductions of the data. (d) Release, Publication, and Use of Data. (1) The Seller shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Seller in the performance of this subcontract, except—(i) As prohibited by Federal law or regulation (e.g., export control or national security laws or regulations); (ii) As expressly set forth in this subcontract; or (iii) If the Seller receives or is given access to data necessary for the performance of this subcontract that contain restrictive markings, the Seller shall treat the data in accordance with such markings unless specifically authorized otherwise in writing by the Company. (2) The Seller agrees not to assert copyright in computer software first produced in the performance of this subcontract without prior written permission of the Government. When such permission is granted, the Government shall specify appropriate terms, conditions, and submission requirements to assure utilization, dissemination, and commercialization of the data. The Seller, when requested, shall promptly deliver to the Company or to the Government a duly executed and approved instrument fully confirmatory of all rights to which the Company and the Government are entitled. (e) Unauthorized Marking of Data. (1) Notwithstanding any other provisions of this subcontract concerning inspection or acceptance, if any data delivered under this subcontract are marked with the notices specified in paragraph (g)(3) or (g)(4) of this clause if incorporated into this subcontract and use of the notices is not authorized by this clause, or if the data bears any other restrictive or limiting markings not authorized by this subcontract, the Company may at any time either return the data to the Seller, or cancel or ignore the markings. However, pursuant to 41 U.S.C. 253d, the following procedures shall apply prior to canceling or ignoring the markings. (i) The Company will make written inquiry to the Seller affording the Seller 60 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings; (ii) If the Seller fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 60-day period (or a longer time approved in writing by the Company for good cause shown), the Company shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions. (iii) If the Seller provides written justification to substantiate the propriety of the markings within the period set in paragraph (e)(1)(i) of this clause, the Company will consider such written justification and determine whether or not the markings are to be

canceled or ignored. If the Company determines that the markings are authorized, the Seller will be so notified in writing. If the Company determines that the markings are not authorized, the Company will furnish the Seller a written determination, which determination will become final regarding the appropriateness of the markings unless the Seller files suit in a court of competent jurisdiction within 90 days of receipt of the Company's decision. The Company will continue to abide by the markings under this paragraph (e)(1)(iii) until final resolution of the matter either by the Company's determination becoming final (in which instance the Company will thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed. (2) The time limits in the procedures set forth in paragraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request Exhibit 9 – Technical Data UT-B Contracts Div June 2011 Page 3 of 3 ex9-june11.doc thereunder. (3) Except to the extent the Company's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Seller is not precluded by paragraph (e) of the clause from bringing a claim, in accordance with the Resolution of Disputes clause of this subcontract, that may arise as the result of the Company removing or ignoring authorized marking on data delivered under this subcontract. (f) Omitted or Incorrect Markings. (1) Data delivered to the Company without any restrictive markings shall be deemed to have been furnished with unlimited rights. The Company and the Government are not liable for the disclosure, use, or reproduction of such data. (2) If the unmarked data has not been disclosed without restriction outside the Government, the Seller may request, within 6 months (or a longer time approved by the Company in writing for good cause shown) after delivery of the data, permission to have authorized notices placed on the data at the Seller's expense. The Company may agree to do so if the Seller-(i) Identifies the data to which the omitted notice is to be applied; (ii) Demonstrates that the omission of the notice was inadvertent; (iii) Establishes that the proposed notice is authorized; and (iv) Acknowledges that the Company and the Government have no liability for the disclosure, use, or reproduction of any data made prior to the addition of the notice or resulting from the omission of the notice. (3) If data has been marked with an incorrect notice, the Company may- (i) Permit correction of the notice at the Seller's expense if the Seller identifies the data and demonstrates that the correct notice is authorized; or (ii) Correct any incorrect notices. (g) Protection of Limited Rights Data and Restricted Computer Software. (1) The Seller may withhold from delivery qualifying limited rights data or restricted computer software that are not data identified in paragraphs (b)(1)(i), (ii), and (iii) of this clause. As a condition to this withholding, the Seller shall (i) identify the data being withheld; and (ii) furnish form, fit, and function data instead. (2) Limited rights data that are formatted as a computer data base for delivery to the Company shall be treated as limited rights data and not restricted computer software. (3) [Reserved.] (4) [Reserved.] (h) Subcontracting. The Seller shall obtain from its subcontractors all data and rights therein necessary to fulfill the Seller's obligations to the Company and the Government under this subcontract. If a subcontractor refuses to accept terms affording the Company and the Government those rights, the Seller shall promptly notify the Company of the refusal and shall not proceed with the subcontract award without authorization in writing from the Company. (i) Relationship to Patents or Other Rights. Nothing contained in this clause shall imply a license to the Company or the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Company or the Government. (j) The Seller agrees, except as may be otherwise specified in this subcontract for specific data deliverables listed as not subject to this paragraph, that the Company may, up to three years after acceptance of all deliverables under this subcontract, inspect at the Seller's facility any data withheld pursuant to paragraph (g)(1) of this clause, for purposes of verifying the Seller's assertion of limited rights or restricted rights status of the data or for evaluating work performance. When the Seller whose data are to be inspected demonstrates to the Company that there would be a possible conflict of interest if a particular representative made the inspection, the Company shall designate an alternate inspector. 2. ADDITIONAL DATA REQUIREMENTS. (Note: This clause does not apply to this subcontract if the subcontract is for the conduct of basic or applied research, as set out elsewhere in this subcontract, to be performed solely by a college or university, and the estimated cost is not in excess of \$500,000.) (a) In addition to the data (as defined in the Rights in Data - General clause included in this subcontract) specified elsewhere in this subcontract to be delivered, the Company may, at any time during subcontract performance or within a period of 3 years after acceptance of all items to be delivered under this subcontract,

order any data first produced or specifically used in the performance of this subcontract. (b) The Rights in Data - General clause included in this subcontract is applicable to all data ordered under this Additional Data Requirements clause. Nothing contained in this clause shall require the Seller to deliver any data the withholding of which is authorized by the Rights in Data - General clause of this subcontract, or data which are specifically identified in this subcontract as not subject to this clause. (c) When data are to be delivered under this clause, the Seller will be compensated for converting the data into the prescribed form, for reproduction, and for delivery. (d) The Company may release the Seller from the requirements of this clause for specifically identified data items at any time during the 3-year period set forth in paragraph (a) of this clause.

12 Organizational Conflicts of Interest Organizational Conflicts of Interest (Jul 2010) (a) Purpose. The purpose of this clause is to ensure that the Seller (1) is not biased because of its financial, contractual, organizational, or other interests which relate to the work under this Agreement, and (2) does not obtain any unfair competitive advantage over other parties by virtue of its performance of this Agreement. (b) Scope. The restrictions described herein shall apply to performance or participation by the Seller and any of its affiliates or their successors in interest (hereinafter collectively referred to as "Seller") in the activities covered by this clause as a prime contractor, subcontractor, co-sponsor, joint venturer, consultant, or in any similar capacity. For the purpose of this clause, affiliation occurs when a business concern is controlled by or has the power to control another or when a third party has the power to control both. (1) Use of Seller's Work Product. (i) The Seller shall be ineligible to participate in any capacity in Company or DOE contracts, subcontracts, or proposals therefore (solicited and unsolicited) which stem directly from the Seller's performance of work under this Agreement for a period of five years after the completion of this Agreement. Furthermore, unless so directed in writing by the Company, the Seller shall not perform any advisory and assistance services work under this Agreement on any of its products or services or the products or services of another firm if the Seller is or has been substantially involved in their development or marketing. Nothing in this subparagraph shall preclude the Seller from competing for follow-on subcontracts for advisory and assistance services. (ii) If, under this Agreement, the Seller prepares a complete or essentially complete statement of work or specifications to be used in competitive acquisitions, the Seller shall be ineligible to perform or participate in any capacity in any contractual effort which is based on such statement of work or specifications. The Seller shall not incorporate its products or services in such statement of work or specifications unless so directed in writing by the Company, in which case the restriction in this subparagraph shall not apply. (iii) Nothing in this paragraph shall preclude the Seller from offering or selling its standard and commercial items to the Company or the Government. (2) Access to and use of information. (i) If the Seller, in the performance of this Agreement, obtains access to information, such as Company or DOE plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or data which has not been released or otherwise made available to the public, the Seller agrees that without prior written approval of the Company, it shall not-(A) use such information for any private purpose unless the information has been released or otherwise made available to the public; (B) compete for work for the Company or DOE based on such information for a period of six (6) months after either the completion of this Agreement or until such information is released or otherwise made available to the public, whichever is first; (C) submit an unsolicited proposal to the DOE which is based on such information until one year after such information is released or otherwise made available to the public; and (D) release such information unless such information has previously been released or otherwise made available to the public by the Company or the Government. (ii) In addition, the Seller agrees that to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or other confidential or privileged technical, business, or financial information under this Agreement, it shall treat such information in accordance with any restrictions imposed on such information. (iii) The Seller may use technical data it first produces under this Agreement for its private purposes consistent with paragraphs (b)(2)(i)(A) and (D) of this clause and the patent, rights in data, and security provisions of this Agreement. (c) Disclosure after award. (1) The Seller agrees that, if changes, including additions, to the facts disclosed by it prior to award of this Agreement, occur during the performance of this Agreement, it shall make an immediate and full disclosure of such changes in writing to the Subcontract Administrator. Such disclosure may include a description of any action which the Seller has taken or proposes to take to avoid, neutralize, or mitigate any resulting conflict of interest. The Company may, however, terminate the Agreement for convenience if it

deems such termination to be in the best interest of the Company or the Government. (2) In the event that the Seller was aware of facts required to be disclosed or the existence of an actual or potential organizational conflict of interest and did not disclose such facts or such conflict of interest to the Subcontract Administrator, the Company may terminate this Agreement for default. (d) Remedies. For breach of any of the above restrictions or for nondisclosure or misrepresentation of any facts required to be disclosed concerning this Agreement, including the existence of an actual or potential organizational conflict of interest at the time of or after award, the Company may terminate the Agreement for default, disqualify the Seller from subsequent related contractual efforts, and pursue such other remedies as may be permitted by law or this Agreement. (e) Waiver. Requests for waiver under this clause shall be directed in writing to the Subcontract Administrator and shall include a full description of the requested waiver and the reasons in support thereof. If it is determined to be in the best interests of the Company or DOE, the Company may grant such a waiver in writing. (f) Subcontracts. (1) The Seller shall include a clause, substantially similar to this clause, including this paragraph (f), in subcontracts expected to exceed the simplified acquisition threshold determined in accordance with 48 CFR part 13 and involving performance of advisory and assistance services as that term is defined at 48 CFR 2.101. The terms "Agreement," "Seller," and "Subcontract Administrator" shall be appropriately modified to preserve the Company's and the DOE's rights. Organizational Conflicts of Interest July 2010 Page 1 of 2 UT-B Contracts Div org-conflict-int-clause-ext-july10.doc (2) Prior to the award under this Agreement of any such subcontracts for advisory and assistance services, the Seller shall obtain from the proposed subcontractor or consultant the disclosure required by 48 CFR 909.507-1, and shall determine in writing whether the interests disclosed present an actual or significant potential for an organizational conflict of interest. Where an actual or significant potential organizational conflict of interest is identified, the Seller shall take actions to avoid, neutralize, or mitigate the organizational conflict to the satisfaction of the Seller. If the conflict cannot be avoided or neutralized, the Seller must obtain the approval of the Company prior to entering into the subcontract.