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## **Statement of Work:** **Generation II Advanced Bomb Suit Statement of Work**

### **1. BACKGROUND:**

The Army is seeking to provide an immediate improvement in the bomb suit worn by Explosive Ordnance Disposal (EOD) Soldiers. The current Advanced Bomb Suit (ABS) was developed based upon a 29 December 1999 Operational Requirements Document (ORD). In response to the constantly changing and increased threats encountered, the Army has identified a need to improve and redesign the ABS ensemble to provide not only a higher level of protection, but also to improve the mobility and capability of the EOD Soldier. The Army is seeking improvements to the helmet and suit of the ABS as a system and, individually.

The current ABS weighs 74 lbs., comes only in four (4) sizes for the suit, has a one size fits all helmet, and requires a non-integrated cooling system which is dependent upon available ice. The Generation II Advanced Bomb Suit (GEN II ABS) is a Non-Developmental Item (NDI) or an existing, complete designs that industry either has in production or is waiting for a requirement to begin production. The Army's number one objective for the GEN II ABS is to reduce weight, by approximately 15% to 40%, while improving form, fit, and function. Further, the Army is seeking an expanded sizing tariff for the helmet and suit (5<sup>th</sup> percentile female through 95<sup>th</sup> percentile male) to improve the fit and function for each EOD Soldier. Finally, the Army is seeking to leverage dramatic improvements in cooling system technology by incorporating an enhanced integrated cooling system into the suit. The Army is also interested in other attributes, if available, like blast overpressure attenuation system, heat and light flash protection, increased fragmentation protection, and impact protection to the head and spine due to impact with hard surfaces.

### **2. SCOPE:**

The scope of work includes all procurement and production activities required to upgrade the current ABS through the manufacture of the soft armor, EOD suit, EOD helmet, integrated cooling system and other materials that will constitute the GEN II ABS. Contractors must submit the entire GEN II ABS ensemble and not one or more individual components. The GEN II ABS must provide protection as required by the GEN II ABS Technical Statement of Need (TSN). The scope of this effort will be accomplished through a two (2) phased period of performance that will result in a Single Responsible Offeror (SRO) whose proposal represents the best value to the Government. Phase 1 is a competitive acquisition with the award of up to three (3) Firm Fixed Price (FFP) contracts. Phase 2 will award the SRO a four (4) year FFP Requirements contract for up to a maximum quantity of one thousand five hundred thirty-eight (1,538) GEN II ABSs. Initial production under the Phase 2 award for the FFP Requirement contract will be Delivery Order 0001 for one hundred fifty-three (153) GEN II ABSs.

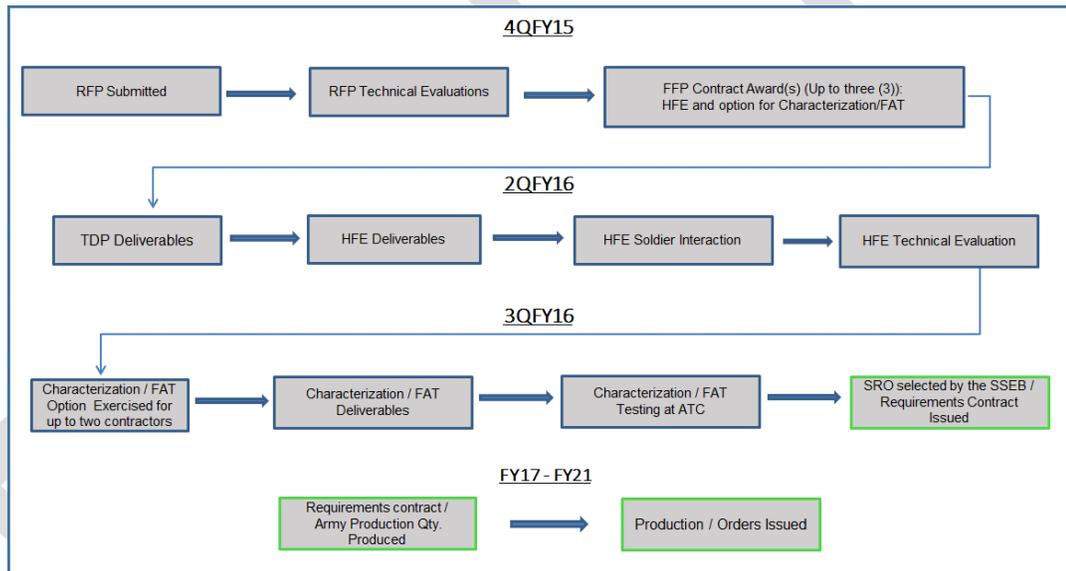
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## Phase 1

- Solicitation responses evaluated
- Up to three (3) FFP Contracts Awarded
- Technical Data Package evaluated to ensure compliance to TSN
- Human Factors Evaluation conducted for all Phase 1 Awardees
- Characterization and First Article Testing (FAT) for up to two (2), Phase 1 Awardees.

## Phase 2

- Award SRO Requirements production contract
- Requirements production, Delivery Order 0001, for one hundred fifty-three (153) GEN II ABS
- Requirements production of one thousand three hundred eighty-five (1,385) GEN II ABS systems available for future orders within four (4) year period of performance.



### 2.1 Phase 1 Solicitation & Contract Award:

Offerors shall submit a complete proposal, as listed in section 2.1.1, for Government evaluation. The Government may award up to three (3) FFP contracts, as listed in section 2.1.3, to the responsible Offerors whose proposals represent the best value to the Government

### Basis of Award: Pre-HFE

The awards for Phase 1 Pre-HFE will be made based on the best overall (i.e., best value) proposals that are determined to be the most beneficial to the Government, with appropriate consideration given to the seven (7) evaluation factors: Technical,

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Workmanship, Quality Assurance, Past Performance, Delivery, Small Business Participation and Price.

Technical Bomb Suit Sub-Factors 4 (Suit Weight), 5 (Helmet Weight), 6 (Transparent Visor Ballistic Protection), and 7 (Blast Shield Ballistic Protection) are significantly more important than price. The remaining Technical sub-factors and the Workmanship, Quality Assurance, Past Performance, Delivery and Small Business Participation factors are of equal importance.

Only those proposals found to be rated Yellow or above for Technical Sub-Factors 4, 5, 6, and 7, and “acceptable” (pass) on the remaining sub-factors under Technical and the Workmanship, Quality Assurance, Past Performance, Small Business Participation and Delivery factors will be considered for an award. However, due to limited funding, the Government may only award up to three (3) contracts.

### Basis of Award to Exercise Option CLIN 0003: FAT/Characterization Testing:

The decision to exercise the CLIN 0003 FAT/Characterization Testing Option will be based on the results of the HFE. The exercise of the FAT/Characterization Testing Option will occur for up to two (2) responsible Offerors whose highest rated HFE, which is significantly more important than price, represents the best value in a trade-off with price.

In the event that two or more Offeror’s GEN II ABS designs are rated substantially equal to each other, the Technical Bomb Suit Sub-Factors 4, 5, 6, and 7 (which are all equal to each other) will be used to decide a final order. Once an order is established, a best value trade-off with price will be exercised to down-select to the Awardee(s). Up to two (2) CLIN 0003 Options are anticipated to be exercised; however number of Options exercised will depend on proposed pricing and available funding at time of award.

**Offerors are cautioned that the award may not necessarily be made to the lowest priced offeror. Offerors are also cautioned that Awards are contingent upon the availability of funding.**

#### 2.1.1 Required Proposal Contents for Response to RFP:

- One (1) GEN II ABS end item with all components sized to fit the 50<sup>th</sup> percentile male.
- Material Testing Reports to include Weight for suit and helmet, V50 Ballistic Testing and Non-destructive Testing data from a NIJ Certified Laboratory
- Technical Proposal- See RFP
- Workmanship Proposal – See RFP
- Quality Assurance Proposal – See RFP
- Past Performance Proposal – See RFP
- Small Business Participation Proposal – See RFP
- Delivery Proposal – See RFP

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- Price Proposal – See RFP

### 2.1.2 Address for above prototype GEN II ABS submission:

Product Manager Soldier Protective Equipment  
Attn: Matt Adams, Dave Holland, MAJ Getter  
10170 Beach Road, Building 328T  
Fort Belvoir, VA 22060  
703-704-1775  
DODAAC: W5K9Z9

**NOTE:** After an Offeror has scheduled shipment of their product samples, they shall submit an e-mail, to Mr. David Holland at [david.m.holland.civ@mail.mil](mailto:david.m.holland.civ@mail.mil), which provides details of the shipment to include: the Prime Offeror's Company Name, number of boxes, and Carrier Information (i.e. FedEx, hand delivery, etc.)

### 2.1.3 Phase 1: FFP Contract Structure:

- Award of Contract: Up to three (3) FFP awards
- CLIN 0001: TDP
- CLIN 0002: Human Factors Evaluation (HFE) and Use & Care Manual
- CLIN 0003: (Option): Characterization / First Article Testing (up to two awards)
- CLIN 0004: (Option): Production Process Package (for those Awardees whose option CLIN 0003 is exercised).

### 2.2 Phase 1 (CLIN 0001 - TDP, CLIN 0002 - HFE):

#### 2.2.1 CLIN 0001 – TDP:

The Contractor shall submit their TDP fifteen (15) days prior to the HFE, prior to the submission of their HFE articles. The Contractor shall receive approval of the TDP prior to submitting their HFE items. The TDP shall include but is not limited to the following items/documentation:

- Build Sheet
- Design Nomenclature
- Material Types, Material/Product Safety Data Sheet, Model/Part Numbers, Nomenclatures, etc.
- Number of plies, Orientation, Weave, Denier, Weight, etc.
- Areal Density
- Stitch Pattern

2.2.2: CLIN 0002 - HFE: The HFE will begin sixty (60) days after award of the contracts. HFE is intended to allow Soldiers to assess the form, fit, comfort, wear, durability of the GEN II ABS. CLIN 0002 also includes the requirement for a Use and Care Manual for use by the Soldiers as part of the HFE. At the end of the HFE, based upon the summarized ratings, event team observations, and Soldier feedback, each

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candidate GEN II ABS will receive a complete evaluation and rank order. The Government will use the results of the HFE to determine if it will exercise CLIN 0003 - Characterization / FAT for two of the vendors/awardees.

### 2.2.3 TDP and HFE Deliverables/Ship to Address:

- Complete TDP
- Seven (7) complete GEN II ABS systems and four (4) helmets with hard shell carrying cases shall be delivered sixty (60) days after contract award (ACA). The suits are required in the following sizes: 2-Large, 2-Medium, 1-Medium Small, 1-Small and 1-Extra Small.
- Twenty (20) published and bound copies of the Use and Care Manual and one (1) electronic version on a CD or DVD, PDF or MS Word file format. Manuals will be used as part of the HFE by Soldiers.
- TDP and HFE items shall be delivered to:

Product Manager Soldier Protective Equipment  
Attn: Matt Adams, Dave Holland, MAJ Getter  
10170 Beach Road, Building 328T  
Fort Belvoir, VA 22060  
703-704-1775  
DODAAC: W5K9Z9

### 2.3 Phase 1 CLIN 0003 - Characterization / First Article Testing (Option):

2.3.1 Will begin upon notification that the Contractor's CLIN 0003 - Characterization / FAT is exercised. Characterization / FAT testing will include Blast, Pressure, Fragmentation, Heat and Light Flash, Ballistic, and Flame Testing and FAT (Ballistic and Non-ballistic testing) at an Aberdeen Test Center (ATC) Lab. Designs that pass FAT will receive a FAT Approval letter. Those Awardees whose CLIN 0003 is exercised shall deliver samples and materials, defined in section 2.2.3., sixty (60) days after CLIN 0003 is exercised for Characterization / FAT.

### 2.3.2 Characterization / FAT Deliverables

- Characterization / FAT: The Contractor shall deliver the following Characterization/FAT samples sixty (60) days after exercise of Option CLIN 0003:

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	Characterization/FAT		LAT	
	Quantity	Type	Quantity	Type
Chest	16	shootpack + blast shield	3	end item
Groin	46	shootpack + blast shield	3	end item
Neck	48	neck shaped shootpack	3	end item
Face Shield (Transparent)	16	end item	3	end item
Area between transparent armor and helmet shell if applicable	23	end item	3	end item
Helmet shell	24	end item	3	end item
Front Arms, Front Sides Torso, Front Sides Abdomen/Pelvis, Front Sides Neck	24	15" x 15" shootpack	3	end item
Back of Arms, Back Torso, Back of Neck, Top of feet	24	15" x 15" shootpack	3	end item
Front Upper Legs	24	15" x 15" shootpack	3	end item
Front Lower Leg	24	15" x 15" shootpack	3	end item
Rear Legs	16	15" x 15" shootpack	3	end item
Blast	5	complete suit and helmet (50th percentile male)	0	
Non-ballistic Impact Protection, Head	9	complete helmets	9	Complete helmets
Non-ballistic Impact Protection, spine/back	6	3 each of smallest size and largest size spines	0	
Flame/Heat Protection, Suit Shell Materials	1	sq yd of material	0	
Flame/Heat Protection, Helmet	1	Helmet shell with outer cover if applicable	0	
Weight	1	complete suit and helmet (50th percentile male)	0	
Vision/Optics				
Electrostatic Discharge Resistance (Shell)				
Electrostatic Discharge Resistance (Wearer to ground)				
Suit Outer Shell (outer facing/exposed)				
Colors				
Hearing Protection				
Helmet Retention				
Lighting				
Interface and Interoperability				
High Wear Area materials	3	1 each knee, sole of foot, top of foot	0	

Table 2: Characterization / FAT and LAT Requirements

- Note 1: If multiple subcontractors are to be utilized on the GEN II ABS construction, complete, clearly labeled samples of their portion of the work must be submitted.
- Note 2: All FAT samples must be accompanied with a DD1222 signed by DCMA.
- Production Process Package - The PPP submission shall be prepared in conjunction with the First Article build, and is required *ten (10) working days* after FAT submission (based on DCMA signed date on DD1222).

2.2.3 Address for above Characterization/FAT deliverables and for production Lot Acceptance Test (LAT) deliverables is:

CONTACT INFORMATION	
DODACC: W81C5M	U.S. Army Aberdeen Test Center Building 358 400 Colleran Road Aberdeen Proving Ground, MD 21005
Points of Contact	Kelly Hacker 410-278-8641; DSN: 298

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	Kelly.e.hacker.civ@mail.mil  Dave Nottelman 410-278-4584; DSN: 298 David.l.nottelman.civ@mail.mil
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2.3. Phase 2 Production:

The aforementioned Phase 1 process outlined above transitions the GEN II ABS effort from the testing phase to the production phase. The Government reserves the right to not award the Phase 2 contract.

Non-Ballistic FAT Failures, with the exception of the Impact Testing, will not be a basis for elimination for consideration. Phase 1 Awardees are expected to correct any Non-Ballistic FAT Failures by submitting a proposed modification for Government approval prior to resubmitting test articles. Should no GEN II ABS product be rated “Green” or above in the four (4) Technical Sub-Factors, no production contract will be awarded.

Basis of Award: Gen II ABS Production:

The award under Phase 2 will be made based on the best overall (i.e., best value) proposal that is determined to be the most beneficial to the Government, with appropriate consideration given to those Phase 1 Awardees’ proposals found to have passed FAT/Characterization Testing, found to have met all of the requirements defined in the GEN II ABS TSN and, whose highest rated system-level HFE, which is significantly more important than price, represents the best value in a trade-off with price.

In the event both Offerors’ system level HFE evaluation results are determined to be “substantially equal”, with both Offerors’ systems having passed the FAT/Characterization Test and having met all the requirements defined in the GEN II ABS TSN, the Technical Bomb Suit Sub-Factors 4, 5, 6, and 7 (which are all equal to each other) will be used to decide a final order. Once an order is established, a best value trade-off with price will be exercised to determine the SRO.

**Offerors are cautioned that the award may not necessarily be made to the lowest priced offeror. Offerors are also cautioned that Awards are contingent upon the availability of funding.**

Phase 2: FFP Contract Structure:

- CLIN 0001: Production: (one thousand five hundred thirty-eight (1538) GEN II ABS systems.
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LAT requirements are shown in Table 2 above.

2.3.1. Production CLIN 0001: The FAT approved SRO shall begin delivery of the production quantities, one hundred fifty-three (153) GEN II ABS end items and all associated components of the end item, not later than (NLT) sixty (60) days after contract/delivery order award.

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2.3.2. Additional Production under CLIN 0001: The maximum ordering quantity will be one thousand three hundred eighty-five (1,385) GEN II ABS end items over a four (4) year ordering period. The Government intends to issue Delivery Orders (DO) upon successful completion of the initial CLIN 0001 production quantities.

NOTE: A FAT approval remains valid for one hundred eighty days (180) from the last date of production, at which time the Awardee is responsible for re-submitting their FAT articles, at their cost, for testing. PM SPE will use CLIN 0001 of the requirements contract to procure GEN II ABS components and end items in order to sustain the one thousand five hundred thirty eight (1,538) authorized systems throughout the U.S. Army and the other Military Services.

2.4.3 Address for Production Item Submission. CLIN 0001 Production items shall be submitted in a DD1222 format to the following address:

CONTACT INFORMATION	
DODACC: W912H7	Peckham, Inc. PM-SPIE Staging Facility 7100 Millett Highway Lansing, MI 48917
Points of Contact	Sara Trimmer/Jim Gustafson Peckham Inc. 517-316-4315/4072  Matt Adams PM Soldier Protective Equipment 703-704-1775 <a href="mailto:matthew.m.adams18.ctr@mail.mil">matthew.m.adams18.ctr@mail.mil</a>

**3. REQUIREMENTS**

3.1 The GEN II ABS end item and components shall meet all of the requirements of the TSN for the GEN II ABS, dated 15 September 2015, and this SOW. The absence of any inspection requirements shall not relieve the Contractor of the responsibility of ensuring that all products and supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements; however, this does not authorize the submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material. If there is a conflict between the stated requirements of the contract and the Quality Manual, the more restrictive requirement shall apply.

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3.2 Workmanship. The Contractor shall verify and validate that all fabrication procedures will yield quality workmanship and safety of the service person using the item. All materials to be used in the construction shall consist of quality levels to assure conformance to all requirements, unless otherwise authorized. All workmanship shall be conducted to eliminate and avoid human induced defects. Manufacturing practices shall be capable of consistently yielding product that conforms to all requirements in this SOW or TSN GEN II ABS dated 15 September 2015 and internal specifications for the product and their components. Continual improvement shall also be a constant focus of the manufacturing practices. All component materials shall be properly marked, identified, and protected during storage. Materials shall be produced and integrated to extend durability, and provide consistency of appearance throughout life. Material layers shall be free of contaminants (such as, but not limited to: foreign object debris, media not associated with the technical data package, loose fragments of component materials, operator elements not part of component materials) which may result in de-lamination between layers. Material interfaces shall be compatible and shall ensure ease of use. The product shall be free of foreign objects, tears, stains, holes or other imperfections of end items when examined subjected to deconstruction and visual examination in accordance with the product specification and the term and conditions of the contract. This section is applicable to all material or components of the product whether furnished by the Prime Contractor or by any of their suppliers or subcontractors.

3.3 Shipping and Packaging Instructions: The Contractor shall use best commercial practices for shipping and packaging of the GEN II ABS.

### 3.4 Ownership and Support

3.4.1 Service Life and Reliability: The finished GEN II ABS shall have a service life of three hundred sixty-five (365) days of continuous use in all types of typical military field environments. If not impacted by fragmentation, blast overpressure, flame/heat, and ballistic projectiles, no operational mission failures shall occur.

3.4.2 Shelf Life: The minimum shelf life of all components and materials in the finished GEN II ABS shall be five (5) years. The components and materials shall suffer no degradation in performance after storage for a period of five (5) years.

3.4.3 In addition, the Contractor and its subcontractor(s) shall ensure that the finished end item is shipped, following Government LAT approval, in a timely manner to ensure that no less than ninety (90) percent (allowing for rounding to whole months) of the shelf-life is still remaining at time of receipt by the first Government activity. Any delivery from a Contractor not having at least ninety (90) percent shelf-life remaining shall be considered nonconforming and cause for rejection.

3.4.4 The Contractor and its subcontractors shall not incorporate, integrate nor include in the manufacturing of any subassembly or end item, shelf-life expired raw materials, and or parts. If shelf-life expiration for raw materials is not defined in this specification, the recommended shelf-life expiration from the raw material source shall be honored. Any

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delivery or end item found to have been manufactured with expired material from a Contractor shall be considered non-conforming and cause for rejection.

3.4.5 Health and Safety: The GEN II ABS shall be safe for human use and shall not contain any harmful materials.

3.4.6 Safety: The GEN II ABS shall be designed so that under all conditions or normal use and under a likely fault condition, including human error, it protects against the risk of hazards. The potential for injury while assembling, donning/doffing, cleaning and maintaining the GEN II ABS shall be eliminated or minimized to the maximum extent. There shall be no loose parts that would be susceptible to snagging.

3.4.7 Hazardous Materials: Hazardous materials that can be exposed to personnel or the environment during any operational (to include fabrication, transportation, and setup/tear down) or maintenance procedures, or exposed as a result of damage to the equipment, or requiring special disposal procedures, shall be kept to an absolute minimum, consistent with operational requirements. Environmentally acceptable substitutes shall be used whenever possible without degrading operational function and maintaining cost effectiveness. Hazardous material exposed to personnel shall be controlled to levels below the Occupational Safety & Health Administration (OSHA) Permissible Exposure Limits. The GEN II ABS shall not present any uncontrolled health hazard throughout the life-cycle of the item. The following shall be considered and factored into the design of the GEN II ABS.

- a. Avoid the use of materials that cause skin irritation or allergies
- b. Utilize materials that are resistant to dirt, fungus, bacterial growth, etc. and
- c. Allow for easy cleaning and/or replacement of parts that could present health hazards to the wearer.

## **4. DELIVERY AND PERFORMANCE**

4.1 Required Delivery Date for Production Quantities: Required delivery date will be set forth within each DO at the time awarded.

4.2 The Government reserves the right to order the quantity of specific sizes required to best meet the needs of Soldiers. This may or may not be in the size tariffs specified in the SOW. The Government is constantly reviewing the size tariffs to ensure the correct quantities of equipment are being provided.

4.3 FAT Waiver: Test Reports: For those awardees who will try to waive First Article Test (FAT) requirement, final test reports for all materials and components, outlined in section 4.0 of the TSN, shall be provided in a 3-ring binder. Only test data reports dated within the prior 12 months or less at the date of submission will be accepted.

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### 4.4 Lot Configuration:

4.4.1 The Government will indicate the lot quantity and any applicable restrictions. Mix sized lots are allowed upon approval by the Government.

4.4.2 Lot Testing: The required items for LAT are outlined at TSN section 4.1.7, Tables III and IV. Each production lot shall be subject to LAT. Failure to meet the ballistic requirements will result in rejection of the lot and issuance of Corrective Action Request (CAR) by Defense Contract Management Agency (DCMA) at the prime Contractor's facility. All test articles shall be delivered to ATC (SOW paragraph 2.2.4). NOTE: Prior to contract award the Government will produce a Lot Acceptance Test Plan, which will be reviewed with the Contractor Awardee after Award of the Requirement Production Contract.

4.4.3 GEN II ABS Protection Shootpack Construction: See Table III in the TSN.

4.5 First Article Testing: The Government expects FAT approvals to take one hundred and five (105) days from the date of receipt of FAT items by ATC.

4.6 Size Requirements: The GEN II ABS shall be produced in six (6) sizes. The sizes and quantities that are required for FAT and LFT/IOT are outlined below. Additional sizes may be required.

4.6.1 GEN II ABS Size Requirements: See Sections 1.3 and 3.12 in the TSN.

## **5. SAFETY**

5.1 The Contractor shall certify that safety is inherent in the design and fabrication of the GEN II ABS is achieved in accordance with Federal and Industry standards and regulations. The Contractor shall implement a System Safety Program that applies to the applicable safety design requirements and management controls. The Contractor shall develop and maintain documents that demonstrate early hazard identification, evaluation, and elimination or control to preclude injury or death to user/operators or maintainers of the GEN II ABS system.

5.2 All Material/Product Safety Data Sheets shall be included in the PPP, Section 10.5 and outlined under the sections 3.4.5 and 3.4.6 above and TSN section 4.17 Health Hazards. All safety documents shall be made available to the Government for review and or audit.

## **6. SECURITY REQUIREMENTS**

6.1 Safeguarding. The Contractor shall be responsible for safeguarding all Government equipment, information and property provided for Contractor use.

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6.2 Disclosure. Neither the Contractor nor any of its subcontractor's providers shall disclose or cause to disseminate any information concerning operations of military activities and or sensitive performance requirement. Such action(s) could result in violation of the contract and possible legal actions.

6.3 Inquiries, Comments & Complaints. All inquiries, comments or complaints arising from any matter observed, experienced, or learned of as a result of or in connection with the performance of this contract, the resolution of which may require the dissemination of official information, shall be directed to the Contracting Officer Representative (COR) and the Contracting Officer (KO).

6.4 Authorized Points of Contact. The Contractor shall only conduct business with designated Government personnel listed as Points of Contact (POC). Names of authorized personnel shall be provided to the Contractor by the Government, in writing, and updated as necessary throughout the contract period.

6.5 Records Maintenance & Availability. U.S. Government records, copies of original results and reports, verified original data, corrected data, and corrected supporting final reports are maintained by the Contractor, but remain the property of the U.S. Government. These files/results must be surrendered to the COR when requested.

6.6 Awareness Training (AT) / Operations Security (OPSEC):

6.6.1 All Contractor employees, including subcontractor employees, requiring access to Army installations, facilities, or controlled access areas shall complete AT Level I awareness training within forty-five (45) days after contract start date or effective date of incorporation of this requirement into the contract, whichever applies. The Contractor shall submit certificates of completion for each affected Contractor employee and subcontractor employee to the COR/Anti-Terrorism Officer (ATO) (or to the KO, if a COR is not assigned) within sixty (60) calendar days after completion of training by all employees and subcontractor personnel. AT Level I awareness training is available at <https://atlevel1.dtic.mil/at>.

6.6.2 The Contractor and all associated subcontractors' employees shall comply with applicable installation, facility, and area commander installation and facility access and local security policies and procedures (provided by the Government representative). The Contractor shall also provide all information required for background checks to meet installation access requirements to be accomplished by the installation Provost Marshal Office, Director of Emergency Services, or Security Office. The Contractor workforce must comply with all personal identity verification requirements as directed by Department of Defense (DoD), Headquarters Department of the Army (HQDA), and/or local policy. In addition to the changes otherwise authorized by the changes clause of this contract, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in Contractor security matters or processes.

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6.6.3 The Contractor and all associated subcontractors shall brief all employees on the local iWATCH program (training standards provided by the requiring activity ATO). This locally developed training will be used to inform employees of the types of behavior to watch for and instruct employees to report suspicious activity to the COR/ATO. This training shall be completed within forty-five (45) calendar days of contract award and within forty-five (45) calendar days of new employees' commencing performance, with the results reported to the COR/ATO no later than sixty (60) calendar days after contract award or new employees' commencing performance.

6.6.4 The Contractor will implement an employee verification process, whether through background checks or other similar processes and provide a written response explaining how the verification process was completed and attest to the trustworthiness of the workforce, within forty-five (15) days of contract award.

**7. CONTACTING OFFICER REPRESENTATIVE:** The COR monitors all technical aspects of the contract and assists in contract administration. A letter of designation issued to the COR, a copy of which is sent to the Contractor, states the responsibilities and limitations of the COR, especially with regard to changes in cost or price, estimates or changes in delivery dates. The COR is not authorized to change any of the terms and conditions of the resulting contract.

**8. ORGANIZATIONAL CONFLICT OF INTEREST:** Contractor and subcontractor personnel performing work under this contract may receive, have access to or participate in the development of proprietary or source selection information (e.g., cost or pricing information, budget information or analyses, specifications or work statements, etc.) or perform evaluation services which may create a current or subsequent Organizational Conflict of Interests (OCI) as defined in FAR Subpart 9.5. The Contractor shall notify the KO immediately whenever it becomes aware that such access or participation may result in any actual or potential OCI and shall promptly submit a plan to the KO to avoid or mitigate any such OCI. The Contractor's mitigation plan shall be determined to be acceptable solely at the discretion of the KO and in the event the KO unilaterally determines that any such OCI cannot be satisfactorily avoided or mitigated, the KO may affect other remedies as he or she deems necessary, including prohibiting the Contractor from participation in subsequent contracted requirements which may be affected by the OCI.

### **9. FIRST ARTICLE TEST AND CONFORMANCE INSPECTIONS.**

All FAT, LAT, and conformance inspections shall be conducted per the contract, PD, and Contractor internal requirements. Tests, inspections, and procedures used are subject to Government review and approval. The Contractor shall provide test data, traceability to materials, and procedures that verify the outcome contained in all Certificates of Conformance. The Contractor shall produce all products in accordance with an approved FAT and Production Process Package (PPP) or equivalent system. The Government reserves the right to suspend or revoke production authorization for non-compliance with the contract requirements.

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9.1 Initial FAT shall be conducted at ATC and will be paid for by the Government. If the initial FAT fails, it will be the Contractor's responsibility to pay for additional testing to become FAT qualified.

9.1.1 FAT Failure. In the case of a FAT failure, DCMA Quality Assurance Representative (QAR) will issue a Corrective Action Report (CAR) to the Contractor (see 9.2 and 9.2.1). Based on the severity of the failure and the Contractor's ability to correctly identify the root cause, at the KO's discretion, the Contractor shall re-submit the required FAT articles for delta testing (at the Contractor's expense). The Contractor's CAR response and FAT articles shall meet the Government's requirements before FAT approval is granted. Schedule delays incurred, due to the failure of product not fully meeting the Government requirement, are the responsibility of the Contractor.

9.1.2 Accounting For Items Consumed in Testing. The Contractor shall pay for the transportation and the test articles consumed, expended, and/or otherwise rendered unusable as a result of testing.

9.2 Corrective Action Request. Upon receipt of a CAR from DCMA, the Contractor shall conduct a complete failure analysis and provide the CAR response to the KO, DCMA (QAR, Administrative Contracting Officer (ACO), PM SPE QA, and COR in accordance with SOW Exhibit 4. The Government will determine whether to approve/reject the CAR within ten (10) working days from receipt.

9.2.1 The Contractor shall include all salient information for failure analysis (i.e. detailed failure analysis methodology, testing, root cause analysis, corrective action plan and validation plan, etc.) to assess the effectiveness of the corrective action and proposed disposition of the failed item and lot, and containment actions. The Contractor shall include in the CAR documented evidence that rejected items are not sold to other USA Military Services, General Services Administration (GSA) and other venues in which Soldiers/Units may buy replacements using individual or unit funds. CAR procedures and delivery timeline are outlined in SOW Exhibit 4.

9.3 Production Authorization. A production authorization remains in effect and acceptance may continue **unless**:

9.3.1 The Contractor fails any single LAT. The KO will notify DCMA that acceptance shall be withheld after a LAT failure. The Contractor shall segregate the material of the lot in question from all other production lots in process, conduct a failure analysis, and provide a CAR response to the COR, DCMA, Program Manager Soldier Protective Equipment (PM SPE) QA and the KO in accordance with SOW Exhibit 4. PM SPE QA and the KO will determine if the CAR response is technically acceptable within thirty working days. If it is not found to be technically acceptable, the Contractor will be notified by the COR or KO to resubmit the CAR response. The COR or KO will notify the Contractor upon Government acceptance of the CAR response and if production may resume. When a lot fails LAT, the Lot associated with it is subsequently rejected. The

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rejected lot and all associated components are therefore rejected in total and no component parts may be used in the production of any other lot, or any other Government contract without written Government authorization. Failed lots shall not be delivered and products failed shall not be commingled with other lots. The Government reserves the right to revoke acceptance of any and all items that may contain the root cause failure mode, and to require the Contractor to replace all affected units at the Contractor's expense, including transportation costs. Failures occurring during Government testing are also subject to this requirement.

9.3.2 The Contractor fails LAT requirements on two (2) consecutive lots. Consecutive lots are defined by production dates and not testing dates. Should this occur, the Government will withhold acceptance and may immediately cease all production (Stop Acceptance) from the Contractor. The KO will notify DCMA and request them to issue a CAR. The Contractor shall segregate the material of the lot in question from all other ongoing production lots, conduct an analysis, and submit a CAR response to the COR, KO, DCMA, and PM SPE QA. The CAR and subsequent Government decision shall follow the same provisions outlined in the sections above.

9.3.3 A pattern of negative trending or failure is demonstrated outside of the two (2) failed consecutive lots rule: This includes statistically significant shifts in performance, whether improvement or degradation. Should this occur, the Government will withhold acceptance and may immediately cease all production (Stop Acceptance) from the Contractor. The DCMAQAR will issue a CAR detailing the rationale for withholding acceptance. The Contractor shall segregate the material of the lots in question from all other ongoing production lots, conduct an analysis, and submit a CAR response to the KO, DCMA, and the COR no later than (NLT) *fifteen (15) working days* after notification of failure. The CAR and subsequent Government decision shall follow the same provisions outlined above. Schedule delays due to the provisions of a pattern of negative trending or failure are the sole liability of the Contractor.

9.3.4 A Contractor not in production with an approved FAT design for more than a period of one hundred and eighty (180) consecutive days: When multiple designs have been approved over the course of the contract, each design production time shall be self-contained. Non-production under this stipulation will result in automatic revocation of the FAT approval.

## 10. QUALITY ASSURANCE

10.1 Quality Management System (QMS). The Contractor shall have a QMS that follows the requirements of Federal Acquisition Regulations (FAR) 52.246-11. As such, the Contractor shall establish, document, implement and maintain a QMS and continually improve its effectiveness in accordance with the requirements of ISO 9001:2008. All requirements of the contract apply to subcontractors and suppliers. The Contractor shall ensure that all applicable quality requirements, associated specifications, and any other contractual agreements are conveyed contractually to their subcontractors and suppliers, and that compliance is verified by the Contractor. The Contractor shall monitor, assess,

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and audit quality and reliability at all subcontractor and supplier facilities. The Contractor shall include a description of the Quality Assurance Strategy to be implemented at each contractually required review, to include Statistical Process Control (SPC), Pareto Charts and other metrics employed to control critical processes. The Government reserves the right to audit products and processes, as well as the QMS, at any stage of contract performance. The Contractor shall maintain a calibration system in accordance with ANSI/NCSL Z540.3-2006 or equivalent to ensure that all test/inspection, measurement, and diagnostic equipment; including all accessories and ancillary equipment, are calibrated, identified, labeled and traceable to national measurement standards from the National Institute of Standards and Technology (NIST).

10.2. Quality Audits: The Government reserves the right to audit the Contractor's QMS for all products/processes related to the contract. These audits may be of the QMS, a particular process, or the product. *These reviews and audits by the Government will not relieve the Contractor of their responsibility.* A Production Readiness Review (PRR) Audit (SOW 15.4) is required prior to full rate production. Passing the PRR Audit is required in order to receive written authorization from the Government to proceed to full production.

10.3. Subcontractor and Supplier Management: The Contractor shall develop and maintain a Subcontractor and Supplier Management Plan (SMP). The SMP shall include Subcontractor and Supplier selection, qualification, management/surveillance strategy, rating system. The SMP shall specifically state component/product acceptance requirements (if not already specified in the contract or performance specification) for Subcontractor/Suppliers and emphasis shall be placed on product verification at the Subcontractor/Supplier level in order to identify and correct defects at the earliest point of inspection and test. All procedures describing the activities needed to implement the SMP shall be submitted in their entirety.

Subcontractor Management Plan shall include, but not limited to the following information:

1. Quality control/technical requirements
2. Subcontractor and or Supplier Selection Criteria
3. Subcontractor and or Supplier Qualification Standards
4. The Contractor shall identify key features, characteristics and performance requirements that shall be verified at the component acceptance test level.
5. Identify subassembly manufacturing or processes to be performed by any subcontractor and supplier (functions only, i.e. carrier construction – material purchase, cut, sewn, inspection and performance verification testing of carrier etc.)
6. Management and Surveillance Plan for the duration of the contract
7. Rating system
8. Customer contract requirements flow-down
9. Flow chart showing the supply chain (Subcontractors and Suppliers baselined) for the item being manufactured; manufacturers of all components and assemblies shall be specifically identified on the flow chart.

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### 10. Letter of intent for all subcontractor and supplier

The Contractor shall be responsible for work performed by their Subcontractors and Suppliers including any inspections and tests. The Contractor shall ensure that all applicable quality requirements, associated specifications, and all contractual requirements applicable to the component or materials, and spare part are conveyed contractually to their Subcontractors and Suppliers, and that compliance is verified for the period of performance of the contract. The Contractor shall allow the KO or their authorized representative(s) to enter the Contractor's or any Subcontractor and Supplier facility for the purpose of audits, production surveillance/verification, and observation during contract performance. The Contractor shall identify all Subcontractors and Suppliers of all key and critical components or processes by names, location, contact information for key personnel, identify component for each and or working for each. The Contractor shall maintain documented evidence that the Subcontractors and Suppliers meet all criteria related to the contract's materials and processes, including ISO 9001:2008 compliant QMS.

10.4 Quality Manual. The Contractor shall plan for achieving customer satisfaction and assure that the product meets contractual and internal requirements. The Contractor shall establish and maintain a Quality Manual that is compliant with the requirements of ISO 9001:2008 or higher Industry Standard for Quality Management System. The QM shall include: the scope of the quality management system, the ISO 9001:2008 required documented procedures (4.2.3 Control of Documents; 4.2.4 Control of Records; 8.3 Control of Non-Conforming Product; 8.5.1 Corrective Action; 8.5.2 Preventive Action and 8.2.2 Internal Audit) established for the quality management system, in their entirety, and a description of the interaction between the processes of the quality management system.

In conjunction with the Quality Manual the Contractor shall provide a cross-walk matrix (Technical Exhibit 3 – PM SPE Form 11) to further demonstrate how their processes map to the ISO 9001:2008 elements and where there are no written procedures, a brief explanation of how they meet the ISO 9001:2008 standard requirements.

10.5 Production Process Package (PPP): A PPP shall be prepared by the Contractor, validated by DCMA, and submitted for Government acceptance. The PPP submission shall be prepared in conjunction with the First Article build, and is required ten (10) working days after FAT submission (based on DCMA signed date on DD1222). Copies should be submitted to PM SPE Quality Assurance, the KO, and appropriate DCMA office. The PPP must be accepted by the KO prior to issuance of the FAT Approval Letter. Government acceptance of the PPP does not relieve the Contractor from their responsibility to ensure that all production documentation, processes and procedures shall be effective, product improvements and realization is demonstrated and available to the Government; and that all documentation, processes and procedures shall yield an effective product that meet all product specification as stated in the contract and performance specification. The PPP is to be design specific. The KO will provide written approval notification no later than thirty (30) working days from receipt of the

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technically acceptable PPP. If the PPP is determined to be technically insufficient, the PPP will be rejected for appropriate correction and resubmission; the Contractor shall resubmit the corrected PPP within ten (10) working day of notification from the Government. The Government will then have an additional twenty (20) working days from receipt to establish technical acceptability and written approval. The Contractor is responsible for all associated delays as a result of submitting technically insufficient PPP.

- The PPP shall include detailed product information, to include at a minimum:

### **Section 1**

1. Company name
2. Contract Number
3. Approval Authority
4. Approval Date
5. Design designation
6. Product description

### **Section 2**

7. Raw materials
8. Raw material suppliers

### **Section 3**

9. FAT component material test data and certifications (to include Berry Amendment compliance certification for all applicable materials); all test report shall identify the Investigators/Title and approval authority for the test. All test report submitted as part of the PPP shall, at a minimum, contain the following information: test report number, test date, the material tested, Lot number, Customer name, Customer P.O. Number, Bill of Materials (BOM) number, Government Contract Number, test standard, quantity, requirement for acceptance, test performance value, pass or fail results, date report was approved, the investigator (name and signature) and test report approval authority (name, title and signature). The laboratory name, laboratory certification information and location shall be identified on all reports. The Contractor shall submit test reports for the specific product/design configuration submitted and approved by the Government; test report shall not be older than one hundred eighty (180) days.

### **Section 4**

10. All work instructions shall be provided and referenced in either the Process Flow Chart or Process Control Plan (Exhibit 5, PM SPE Form 15).

### **Section 5**

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11. Process Flow Chart (to include all steps, critical inspection points and sequence in the manufacturing process)

12. Process Control Plan, to follow steps in process flow chart, including:

- a) Process/operation number and description
- b) Machinery/equipment/tools
- c) Product/process characteristic to be controlled
- d) Specification/tolerances
- e) Reference drawing/criteria
- f) Evaluation/measurement method
- g) Sample size and frequency
- h) Control method
- i) Reaction plan

- The PPP must be submitted in electronic format. All internal documentation must state the controlled document revision used for the PPP under consideration. Any changes to the TDP or manufacturing process shall be in compliance with the change process defined in SOW paragraph 14. Configuration Management.

10.5. Quality – Limited Life Materials. The Contractor shall ensure that shelf life, cure date, date of manufacture, and expiration date are provided to the Government for all limited life materials, and shall be recorded on the Certificate of Conformance. Limited life materials shall have a minimum of ninety (90) percent shelf life remaining unless otherwise approved in writing by Government. If rubber materials are used in the manufacturing process, the Contractor shall provide test reports with each shipment to ensure remaining shelf-life meets the Governments requirement. Test Reports shall show actual values as observed in testing along with the remaining shelf-life.

10.6. Warranty. The Contractor is required to deliver a product that conforms to contractual requirements after acceptance. The warranty period shall be a minimum of 365 calendar days from date of delivery. If the Contractor's commercial warranty exceeds 365 days, the Government shall receive the benefit. The Contractor shall deliver to the Government the written terms of the warranty for use in returning nonconforming products identified after acceptance. The warranty shall clearly state, the warranty period is in compliance with the contract and covers all production lots.

## 11. DELIVERY AND ACCEPTANCE

11.1. Lot Acceptance Testing articles shall be submitted in accordance with TSN Section 4.1.7.

11.2. Lot Schedule and Acceptance/Rejection. The Contractor shall provide a production lot schedule prior to commencing production. Each lot shall be identifiable by the CLIN or SUBCLIN it represents. "Actual" deliveries will be compared to the "scheduled" deliveries during the first week of the following month, i.e., August deliveries will be reviewed at the beginning of September. Actual Government "acceptance" of a lot will not occur until ATC

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tests the lot samples and provides the requisite lot test approval documentation to PM Soldier for grading.

A lot is considered to be *delivered* on time if it is received at the designated delivery location within fifteen (15) days after the LAT samples tested/passed ATC testing. Lot acceptance/rejection will be in the form of an auto-generated email from PM Soldier Protection and Individual Equipment Management Analysis Requirements Resources Test Evaluation Database (SMARRTED) system.

11.3 Late Deliveries and Consideration. It is essential for deliveries to be on time. If the quantities delivered are less than the quantities “scheduled” to be delivered for any part of this requirement FAT, LAT, other test articles and LRIP; the Government will initially require the Contractor to provide, at no additional cost to the Government, one (1) GEN II ABS in “consideration” for every three (3) GEN II ABS delivered late. Sizes and quantities shall be in accordance with the Government needs. The Contractor may propose other means of consideration that are acceptable to the Government.

## **12. CONFIGURATION MANAGEMENT**

12.1 Configuration Management. The Contractor shall establish a configuration management program for the GEN II ABS program addressing all new and/or modified hardware, firmware, software and documentation resulting from this contract. The Contractor, at no additional cost to the Government, shall correct all non-conformances. The Contractor shall use configuration control to manage proposed changes beginning with the submission of the FAT item(s). Configuration control shall be used to document the impact of proposed changes and to update configuration documentation. Following acceptance of the First Article Unit(s), the Contractor shall not alter the design in form, fit, or function without prior approval from the KO.

12.2 Configuration Status Accounting (CSA). All baselines, Engineering Change Proposals (ECPs), Request for Deviations (RFDs) and Request for Waivers (RFWs) shall be documented in the Contractor’s configuration status accounting database.

12.3 Engineering Change Request (ECR). The Contractor shall prepare ECRs for any process or product changes proposed after FAT/PPP approval and submit them to the Government for concurrence. An ECR can be an ECP, RFD, or RFW. An ECP is a permanent change to a configuration item. A RFD is a temporary change to a configuration before production. A RFW is a temporary change to a configuration after production. ECRs shall be submitted on PM SPE Form 1 at SOW Exhibit 1. The Government will approve or disapprove a submitted ECR with any modifications to the agreed to product or process; the Contractor shall not implement any changes nor make modifications prior to Government approval of the ECR. The Government will decide as to the need for a new FAT based upon the proposed changes. All cost associated with a new FAT shall be borne by the Contractor.

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12.4 Identification and Traceability. Reference ISO 9001:2008 Clause 7.5.3 – Identification and Traceability is a requirement under this contract. ISO 9001:2008 Clause 7.5.3 states: Where appropriate, the organization shall identify the product by suitable means throughout product realization. The organization shall identify the product status with respect to monitoring and measurement requirements throughout product realization. Where traceability is a requirement, the organization shall control the unique identification of the product and maintain records (see 4.2.4). NOTE: In some industry sectors, configuration management is a means by which identification and traceability are maintained. Lot numbering is applicable. The Contractor shall maintain traceability records for all component parts used to manufacture the GEN II ABS. All component parts lot identification shall be traceable through to the GEN II ABS lot number and contract number. Subcontractor's component part lot information shall enable traceability to the raw materials used in the component part. Each GEN II ABS lot shall consist of only one product variant (size and color, etc.). Mixed lots are acceptable, upon approval only. A GEN II ABS lot can be made from multiple lots of ballistic material, where a lot of ballistic material is defined as an individual roll of ballistic material. However, in the case where any additional ballistic material is left over from the production run, that material may only be used in the next consecutive GEN II ABS lot. Records shall be maintained and readily available for Government review and audit verification. For GEN II ABS identified with individual serial numbers, the traceability requirements listed above shall be traceable via the individual serial number. Every GEN II ABS shall be durably marked in such a fashion as to be traceable from production through to the ballistic test records for that lot. The Contractor shall ensure that the serial number is indelible after exposure to mechanically stripping or by the use of a solvent and as specified in the TSN. The Contractor shall ensure that solvents, fuels and other liquids do not diminish the serial number markings.

12.5 Production Data. The following information, as determined during production, shall be made a matter of record and shall be furnished on request to the contracting official. This data shall be identified with the serial number/lot number of the GEN II ABS. Data generated during inspection or other protocols per quality system/Quality Manual/PPP; this includes, but is not limited to the items below:

- Dimensional measurements (weight, thickness, etc.);
- Supplier lot information and traceability for all component parts identified in the technical data package. This shall include material compliance forms signed by the Contractor, each subcontractor or material supplier supported by independent test data (Material Test Report). Contractor shall ensure that Material Test Reports exist to support each compliance form per lot. A copy of the manufacturer's material test report for each lot is required with shipment of material stating to which specification the material was made. These reports shall include the following information:
  1. Signature and title of authorized test facility;
  2. Signature and title of authorized prime Contractor quality personnel;
  3. Applicable specification and revision;

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4. Quality statement compliance to applicable specification/contract requirement;
5. Operational, ownership and environmental test data generated by the Contractor on the GEN II ABS;
6. Ballistic performance test data generated under all first article, lot acceptance, conformance, and validation testing; and Traceability Information.

### 13. MANAGEMENT/MEETINGS/REPORTING

13.1. Program Manager: The Contractor shall assign a Program Manager (PM) who shall serve as primary POC between the Government and Contractor and shall be fully responsible for the coordination of all Contractor activities related to the contract to include, but not limited to cost, schedule, technical performance, data management etc. This person shall have the authority to commit the Contractor to specific courses of action and accept direction from the KO or their authorized representative(s). This person shall be responsible for coordinating all meetings between the Government and the Contractor. This person shall be responsible for taking the minutes from each meeting and distributing those minutes via e-mail to the entire IPT and attendees NLT two working days from the meeting. The PM shall be responsible for bringing to the KO's attention any conflicts in the Contractor's interpretation of the contract requirements (first by telephone, e-mail and followed in writing) or problems that could adversely affect the Contractor's ability to meet the stated quality, cost, or production/delivery and master schedule requirements.

13.2. Post Award Conference/Periodic Progress Meetings: The Contractor shall attend any post award conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation Subpart 42.5. The KO, COR, DCMA-QAR and other Government personnel, as appropriate, may meet periodically with the Contractor to review the Contractor's performance. At these meetings the KO will apprise the Contractor of how the Government views the Contractor's performance and the Contractor shall apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues. These meetings shall be at no additional cost to the Government.

13.3. The Contractor shall coordinate, schedule and conduct a Post Award Conference (PAC) with the Government at the Contractor's facility. The Government anticipates this conference to be conducted within twenty (20) calendar days of contract award. The purpose of the conference shall be discussion of project orientation, transfer of background information, to provide a mutual understanding of the technical requirements/contractual requirements and the Quality Assurance provisions of the contract. The Contractor shall ensure that all personnel, and subcontractors, required for an adequate discussion of the contract effort be in attendance. Scheduling of the post award conference shall not change the delivery schedule of the contract. The Contractor shall be prepared to:

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- Conduct a review of the system requirements to ensure that they have been completely and properly identified and that there is a mutual understanding of the system requirements between the Government and the Contractor;
- Conduct a preliminary review of the design concept to verify its capability to meet the PD;
- Make available to Government representative(s) the documentation for production planning, manufacturing methods and controls, material and manpower resource allocation, production engineering, quality control and assurance program, production management organization, and controls over major subcontractors;
- Review and clarify all contract requirements: the CDRLs, data deliverables, and verification/provisioning conference dates;
- Review the overall tasks and schedule required to execute the contract within the schedule constraints set forth by the Government. The Contractor shall keep an up to date Gantt chart tracking tasks, including baseline and actual schedule progress. It shall be supplied to the Government upon request; and
- Document the post award meeting with minutes and distribute those minutes via e-mail to the entire PAC attendees NLT a week after the PAC.

13.4 Production Readiness Review (PRR)/Audit. The PRR Meeting/Audit shall be conducted six (6) calendar days after receipt of final FAT and Inspection Report, and Government approval. The purpose of this review will be to verify that all lessons learned during FAT have been incorporated into the design and technical data before full-scale production. During the PRR Meeting/Audit the Contractor shall declare their production readiness, documentation readiness level and provide briefings to Government in support their declaration. The Contractor shall present to the Government as part of their presentation internal audits records (i.e. internal reports of their QMS, Configuration Management System and internal Audits of their subcontractor and their readiness level for production). The Government will provide written approval or disapproval five (5) calendar days after PRR Meeting/Audit. The Contractor shall not proceed to full rate production until written approval from the Government declaring passing results. Government will be responsible for agenda (see SOW Exhibit 2) and minutes.

13.4.1 Contractor shall declare their production readiness, documentation readiness levels in briefings to the Government in support of their production readiness declaration. The Contractor shall present to the Government as part of their presentation internal audits records (i.e. internal reports of their QMS, Purchase Orders, Configuration Management System and Internal Audits of their subcontractor and their readiness level for production). The briefing shall address the following:

- Adequacy and stability of the supply chain during the period of performance of the contract

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- Program is properly staffed with qualified production, quality (engineers and inspectors), and manufacturing personnel
- Product acceptance system, including acceptance test procedures and associated equipment, has been validated and put under configuration control
- Production facilities are ready and required personnel are trained
- Delivery schedule is executable (technical/cost risks, long lead items)
- Diminishing Manufacturing Sources and Material Shortages (DMSMS) plan is in place and mitigates the risk of obsolescence during production.
- Drawing/pattern and manufacturing work instructions are ready, validated and released to the appropriate Subcontractor and Supplier; certification that all documentation are under the Configuration Control and available for Government inspection/verification.

13.4.2 Prior to the PRR/Audit, the Contractor shall conduct Configuration Management audits (functional configuration audit and physical configuration audit); the Contractor shall ensure that all internal audits and the final product baselines are completed; internal audit results shall support the Contractor self-assessment. In addition, the Contractor's quality assurance team shall review their internal system, production material release, or project-specific documentation. This review shall ensure that documentation is in place to support authorization for production; the results of all audits shall be presented to the Government five (5) working days prior to the PRR/Audit.

**14. Weekly Updates:** The Contractor shall provide weekly updates (written or teleconference) to the designated Government APM, COR, DCMA-QAR and KO. If conducted via teleconference, the Contractor shall provide meeting minutes to all attendees within two (2) working days after the weekly meeting.

**15. Place of Performance:** The Contractor shall identify work to be performed, End Item Component Suppliers, Subcontractor and Material Supplier name, and places of performance (subcontractor name, physical location of performance, component/material supplied) per FAR 52.215-6, Place of Performance (October 1997). Any request for changes to the identified place of performance shall be submitted to the Government for review and approval. The Contractor shall identify the new location and the verification data used to certify the new location, production capacity, floor plans, and management review/transition plans for startup at the requested location. Changes in production location may also result in a need to conduct a new FAT. All cost associated with a new FAT shall be borne by the Contractor.

## 16. POINT OF INSPECTION

16.1 Inspection and Acceptance will be accomplished at the Contractor's place of performance identified in this contract by the appropriate DCMA QAR. The Government will inspect the Contractor's production quantities as specified in this contract. All production quantities submitted after approval of the First Article shall be produced using the same materials, processes, procedures, equipment and facilities that resulted in the manufacture of the acceptable First Article. This includes all raw

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materials and/or subcomponents. Any change in the production of the approved First Article must be reported in writing to the KO and the COR for determination if a new FAT is required. The cost of such testing shall be borne by the Contractor.

16.2 The Government reserves the right to require full or modified FAT to be accomplished or re-accomplished when it is deemed that there is evidence of potential degradation or failure of specific Contractor designs prior to institution of stop work procedures as described in the FAT Approval Letter. The cost of such testing shall be borne by the Contractor.

16.3 Use of Contractor's Inspection Equipment. The Contractor shall make available gauges, measuring, and testing devices for use by the Government when required to determine conformance with contract requirements. If requested by the Government, the Contractor shall make available personnel for operation of such devices and for verification of their accuracy and condition.

16.4 Source Inspection Required: The Contractor shall provide measurements and certificates of conformance for all material properties identified in the performance requirements by specific test methods.

16.5 Changes in Contractor Status: The Contractor shall notify the Government upon immediate discovery of a contract change telephonically. Written notification of any change shall be submitted to the Government within twenty-four (24) hours of a detected change in contract status. Contract status is defined as any manufacturing/production process, production facility change, subcontractor default, component, subcomponent, material failure etc. Written notification shall include a clear description of the changes/nonconformity, which includes as necessary parts affected, serial numbers, product nomenclature, contract number/CLIN, NSN, contract facility shipment was released from, quantity and date(s) delivered. Even when there is a subcontractor failure and or any other cause, the prime Contractor shall not implement engineering or product changes without the explicit approval of the KO. The Government reserves the right to reject any ECR request. The prime Contractor shall bear all financial responsibility for all delays and for the correction of non-conforming materials delivered to the Government.

**17. ACCEPTANCE:** Acceptance will be made at origin by the DCMA QAR.

### **18. QUALITY ASSURANCE:**

GEN II ABS failures during the early life are a main determinant of Government perception of product quality and thus have a direct bearing on the volume procured. Early life failures are caused by latent defects; therefore the Contractor must implement product assurance to eliminate and minimize these defects toward attaining the Government's perception of good quality and resultant reliability in the field. The Contractor shall have a QMS that follows the requirements of FAR 52.246-11. As such, the Contractor shall establish, document, implement and maintain a QMS and continually improve its effectiveness in accordance with the requirements of ISO 9001:2008. The

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Contractor shall monitor, assess, and audit quality and reliability at all subcontractor and supplier facilities. All requirements of the contract apply to subcontractors and suppliers. The Government reserves the right to audit GEN II ABS *products* and processes, as well as the QMS, at any stage of contract performance. The Contractor shall maintain a calibration system in accordance with ANSI/NCSL Z540.3-2006 or equivalent to ensure that all test/inspection, measurement, and diagnostic equipment to include all accessories and ancillary equipment are properly calibrated and identified by appropriate labeling. The Contractor shall provide certification of conformance or equivalence to ISO 9001:2008 and ISO 10012:2003 within ten (10) working days or when requested by the Government after contract award.

### **19. RETURN MATERIAL AUTHORIZATION (RMA):**

The Government will notify the Contractor within sixty (60) days after discovery of a warranty action with a list of all products that are the subject of that action. The Contractor shall provide a RMA document acknowledging receipt of the RMA request and include shipment authorization information to allow return material requiring correction. Any substitution made to a ballistic component shall require the Contractor to present to the Government proof that all material successfully passed a LAT and was approved by the Government prior to return of that system. No substitution of ballistic material or changing of design configuration is authorized by the Contractor except by explicit written approval from the Government. All RMA items shall be returned to the Government within forty-five (45) days of receipt. All RMA repairs/replacement are subject to inspection and acceptance by DCMA prior to return to the Government.

### **20. BERRY AMENDMENT COMPLIANCE:**

The Contractor shall ensure that all products provided are in compliance with the “Berry Amendment”, in that all applicable components of the item are to be “grown, reprocessed, reused, or produced in the United States”. All component parts shall be identifiable and traceable throughout the supply chain and compliance with the “Berry Amendment”. Reference DFAR Clause 252.225-7012 Preference for Certain Domestic Commodities (January 2007).

### **21. CRITICAL SAFETY ITEM DESIGNATION:**

"Critical Safety Items (CSIs) are parts whose failure would cause loss of life, permanent disability or major injury, loss of a system, or significant equipment damage." The GEN II ABS is considered a CSI.

21.1 Designation. CSI designation means the DCMA will engage in continuous in-plant audit surveillance and product examination of critical and major characteristics in accordance with a zero based statistically valid Sampling Plan of 0.40 % Quality Release Level (QRL) during the period of performance of this contract. The 0.40% QRL is equivalent to ANSI/ASQ Z1.4 zero-based sampling approach. The Acceptance Quality Limit (AQL) of 4.0% is established for minor defects in accordance with

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ANSI/ASQ Z1.4 General Inspection Level II. Any lots submitted to DCMA for inspection and acceptance shall be subject to the AQLs above: critical and major characteristics: zero defect, minor characteristics: 4.0% AQL. The Contractor shall not impose quality inspection criteria less stringent than the criteria detailed above.

21.2 Production. The Contractor shall not proceed with production prior to PRR approval and without DCMA oversight of the production processes for CSI designated personal protective equipment.

21.3 Shipment. No lot shall be released from the Contractor's plant prior to receipt of approval of passing test, Government conducted ballistic reports from PM SPE and acceptance from the appropriate DCMA QAR.

21.4 Withholding of Material Review Board (MRB) Authority – Critical Safety Items. The item being acquired is a critical safety item. Material Review Board (MRB) authority is hereby withheld as outlined below.

21.4.1 MRB authority is defined as disposition of nonconforming material whose non-conformance affects adherence to internal specifications or end item requirements. Non-conforming material can be any item, part, supplies, or product containing one or more non-conformities. Any disposition under MRB other than scrap requires Government authorization. Government authorization will be on a case by case basis unless so stated, and must come from the KO on this contract.

21.4.1.1 "Scrap" is when material that is nonconforming to internal specifications or end item requirements is dispositioned not to be reintroduced into any product under Department of Defense (DOD) contract. Authority to scrap is allowed.

21.4.1.2 "Use-as-is" is disposition of material with one or more non-conformances affecting internal specifications or end item requirements to be used for its intended purpose in its existing condition. Authority to use-as-is is withheld without Government authorization.

21.4.1.3 "Repair" is a procedure which reduces but not completely eliminates a nonconformance. The characteristic after repair still does not completely allow adherence to internal specifications or end item requirements. Authority to repair is withheld without Government authorization.

21.4.1.4 "Rework" is a procedure applied to a nonconformance that shall completely eliminate it and result in a characteristic that completely allows adherence to internal specifications and end item requirements. Authority to rework is withheld without Government authorization.

21.5 Ballistic Testing Requirements. All ballistic testing for FAT or LAT will be conducted at ATC. The Government will provide the appropriate test report distribution lists to ATC.

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21.5.1 Ballistic testing on end items shall be considered acceptance testing. Notify this office ten (10) days prior to any testing in the event the Government wants to witness testing. No lot shall be released from the Contractor’s plant prior to receipt of approval of passing test reports by PM SPE and acceptance from the appropriate DCMA QAR.

21.5.2 Copies of all ballistic reports shall be submitted via e-mail to Dr. James Zheng at [james.q.zheng2.civ@mail.mil](mailto:james.q.zheng2.civ@mail.mil) and Matt Adams at [matthew.m.adams18.ctr@mail.mil](mailto:matthew.m.adams18.ctr@mail.mil) both from PM SPIE for acceptance purpose.

22. LIST OF SOW EXHIBITS: Exhibits 1-5 listed below are provided in a separate attachment.

22.1 Exhibit 1	PM SPE FORM 1	Engineering Change Request (ECR)
22.2 Exhibit 2	Production Readiness Review/Audit	
22.3 Exhibit 3	PM SPE FORM 11	Quality Management System (QMS) Crosswalk
22.4 Exhibit 4	PM SPE FORM 3	Corrective Action Request
22.5 Exhibit 5	PM SPE FORM 15	Process Control Plan

# DRAFT

## 22.1 - EXHIBIT 1

### PM SPE FORM 1: ENGINEERING CHANGE REQUEST (ECR)

<b>PM SPE ENGINEERING CHANGE REQUEST (ECR)</b> <small>(Vendors - Complete Blocks 2 - 19 and Submit to PM SPE)</small>		<b>1. PM SPE CONTROL NUMBER</b>	
<b>2. ORIGINATOR</b>		<b>3. ECR TYPE</b>	
<b>a. TYPED NAME (First, Middle Initial, Last)</b>	<b>b. ADDRESS (Street, City, State, Zip Code)</b>	<input type="checkbox"/> ECP <input type="checkbox"/> RFW <input type="checkbox"/> RFD	
		<b>4. CLASSIFICATION</b>	
		<input type="checkbox"/> Critical <input type="checkbox"/> Major <input type="checkbox"/> Minor	
<b>5. TITLE OF ECR</b>			
<b>6. ITEM DESIGNATION</b>		<b>7. PROCUREMENT ACTIVITY</b>	<b>8. BASELINE AFFECTED</b>
<b>a. MCN / NSN</b>	<b>b. MODEL / DESIGN CODE</b>		
<b>9. END ITEM NOMENCLATURE</b>		<b>10. CONTRACT NUMBER AND LINE ITEM</b>	
<b>11. LOTS/MATERIAL AFFECTED</b>		<b>12. REOCCURRING DEVIATION / WAIVER</b> (If Yes, Provide CAIR in Block 12 & Status in Block 18)	
<b>13. EFFECT ON COST/PRICE</b>		<b>14. EFFECT ON DELIVERY SCHEDULE</b>	
<b>15. OTHER SYSTEMS / CONFIGURATION ITEMS / INTERFACES AFFECTED</b>			
<b>16. DESCRIPTION OF ECR</b>			
<b>17. NEED FOR ECR</b>			
<b>18. CORRECTIVE ACTION TAKEN</b>			
<b>19. SUBMITTING ACTIVITY</b>			
<b>a. TYPED NAME (First, Middle Initial, Last)</b>		<b>c. SIGNATURE</b>	
<b>b. TITLE/ORGANIZATION</b>		<b>d. DATE (YYYYMMDD)</b>	

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<b>PM SPE ENGINEERING CHANGE REQUEST (ECR)</b>		<b>PM SPE CONTROL NUMBER</b>
<b>TITLE OF ECR</b>		
<b>20. PM SPE JUSTIFICATION</b>		
<b>21. ATTACHMENTS</b>		
<b>22. COR (APPROVAL AUTHORITY FOR MINOR ECRs) / PM SPE TECHNICAL STAFF APPROVAL/DISAPPROVAL FOR MAJOR OR CRITICAL ECRs)</b>		
<b>a. APPROVAL</b> <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<b>b. SIGNATURE</b>	<b>c. DATE SIGNED</b> (YYYYMMDD)
<b>23. APM APPROVAL/ DISAPPROVAL (APPROVAL AUTHORITY FOR MAJOR ECRs)</b>		
<b>b. APPROVAL</b> <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<b>b. SIGNATURE</b>	<b>c. DATE SIGNED</b> (YYYYMMDD)
<b>24. PM SPE APPROVAL/ DISAPPROVAL (APPROVAL AUTHORITY FOR CRITICAL ECRs)</b>		
<b>a. APPROVAL</b> <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<b>b. SIGNATURE</b>	<b>c. DATE SIGNED</b> (YYYYMMDD)

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PM SPE ENGINEERING CHANGE REQUEST (ECR) CONTINUATION PAGE <input type="text"/> of <input type="text"/>	PM SPE CONTROL NUMBER
TITLE OF ECR	

PM SPE FORM 1 (ECR), APR 13

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**22.2 - EXHIBIT 2**

**PRODUCTION READINESS REVIEW/AUDIT**

Agenda Topics	Description of Material to be Verified and Discussed
Introduction	Contractor welcome, review of agenda, assessment schedule and orientation to the facility;
Opening Remarks	<ul style="list-style-type: none"><li>a. Introduction of assessment team and Contractor personnel;</li><li>b. Briefing to Contractor describing objectives and expectations for the PRR;</li><li>c. Contractor overview and discussion of the results of their self-assessment;<ul style="list-style-type: none"><li>▪ Results and Findings of Internal PRR</li><li>▪ Results and Findings of Subcontractor PRRs</li></ul></li></ul>
Contract Overview	<p>Contractor must declare their production and documentation readiness level and provide a briefings to support their declaration</p> <ul style="list-style-type: none"><li>▪ <u>Production Capability</u><ul style="list-style-type: none"><li>1. Facility Capability/Controls</li><li>2. Identification of Manufacturing Personnel</li><li>3. Manufacturing Management Personnel</li><li>4. Facility capabilities/controls</li></ul></li></ul> <p>Open Risk Management/Mitigation Discussion</p>
Delivery Schedule Review	
Verification of Subcontractor Awards	<ul style="list-style-type: none"><li>a. Purchase Order Review and Verification of Requirements Flow-down</li><li>b. Test contract verification/Material verification</li></ul>

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<b>Configuration Management</b>	Verification of Production Documentation/Materials <ul style="list-style-type: none"><li>a. Drawings</li><li>b. Purchase Descriptions</li><li>c. Work Instruction</li><li>d. Supply Chain Analysis<ul style="list-style-type: none"><li>▪ Material availability</li><li>▪ Material proven and validated</li><li>▪ Material special handling requirements</li></ul></li></ul>
<b>Audit on Production Area</b>	Shop-floor visits to key areas by small groups (Contractor and Government)
<b>Audit Meetings</b>	Small group discussions between assessment team members and Contractor Subject Matter Experts (SMEs)
	Private meeting of assessment team to record and discuss observations
	Out-briefing by assessment team to Contractor

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**22.3 - EXHIBIT 3**

**PRODUCT MANAGER SOLDIER PROTECTIVE EQUIPMENT PM SPE FORM 11  
ISO 9001:2008 CROSSWALK**

**Company:**

**Contracting Officer:**

**Solicitation Number:**

**Contract Number:**

**PM SPE Reviewer:**

**Date:**

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## EXHIBIT 3

### PRODUCT MANAGER SOLDIER PROTECTIVE EQUIPMENT

#### ISO 9001:2008 CROSSWALK

This ISO 9001:2008 crosswalk matrix is intended as a clarification map for a Contractor's Quality Management System (QMS). All Soldier Personal Protective Equipment (PPE) are Critical Safety Items, therefore, the contracts for PPE incorporate FAR Clause 52.246.11 Higher Level Contract Quality and delineates ISO 9001:2008 as the standard for compliance. Contractors are not required to be ISO certified at this time, however, they must be ISO 9001:2008 compliant. The definition of compliance is that they must meet all the standard requirements with exception of 3<sup>rd</sup> party registration. The Contractor needs to demonstrate how they meet and maintain an ISO 9001:2008 Quality Management System. The Product Manager Soldier Protective Equipment (PM SPE) Quality Assurance (QA) and Defense Contract Management Agency (DCMA) will evaluate, audit, and monitor the Contractor's QMS to ensure compliance. The crosswalk matrix must be completed and submitted to PM SPE QA for evaluation prior to the initial audit.

1. First column: ISO Standard clauses
2. Second column: Company Quality Management System – The Contractor shall populate this column by referencing their appropriate company document equivalent to requirement
3. Third column: Compliance Statement – If the Contractor is not certified, explain how your process is in compliance with the standard
4. All Procedures required by ISO 9001:2008 shall be submitted as attachments to the Crosswalk Matrix.

Remember, compliance and certification is not the same thing, but they require the same effort and management involvement. Early ISO developed the phrase that is still relevant today, "Say what you do, do what you say, and prove it."

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**EXHIBIT 3**

**PRODUCT MANAGER SOLDIER PROTECTIVE EQUIPMENT  
ISO 9001:2008 CROSSWALK**

ISO 9001:2008 Clause		Company Quality Management System	Compliance Statement
<b>Introduction (title only)</b>			
General	0.1		
Process approach	0.2		
Relationship with ISO 9004	0.3		
Compatibility with other management systems	0.4		
<b>Scope (title only)</b>	<b>1</b>		
General	1.1		
Application	1.2		
Normative references	2		
Terms and definitions	3		
<b>Quality Management System (title only)</b>	<b>4</b>		
General requirements	4.1		
<b>Documentation Requirements (title only)</b>	<b>4.2</b>		
General	4.2.1		
Quality manual	4.2.2		
Control of documents	4.2.3		
Control of records	4.2.4		

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**EXHIBIT 3**

**PRODUCT MANAGER SOLDIER PROTECTIVE EQUIPMENT  
ISO 9001:2008 CROSSWALK**

ISO 9001:2008 Clause		Company Quality Management System	Compliance Statement
<b>Management Responsibility (title only)</b>	<b>5</b>	[[	[[
Management commitment	5.1	[[	[[
Customer focus	5.2	[[	[[
Quality policy	5.3	[[	[[
<b>Planning (title only)</b>	<b>5.4</b>	[[	[[
Quality objectives	5.4.1	[[	[[
Quality management system planning	5.4.2	[[	[[
<b>Responsibility, authority and communication (title only)</b>	<b>5.5</b>	[[	[[
Responsibility and authority	5.5.1	[[	[[
Management representative	5.5.2	[[	[[
Internal communication	5.5.3	[[	[[
<b>Management review (title only)</b>	<b>5.6</b>	[[	[[
General	5.6.1	[[	[[
Review input	5.6.2	[[	[[
Review output	5.6.3	[[	[[

**EXHIBIT 3**

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**PRODUCT MANAGER SOLDIER PROTECTIVE EQUIPMENT  
ISO 9001:2008 CROSSWALK**

ISO 9001:2008 Clause		Company Quality Management System	Compliance Statement
<b>Resource management (title only)</b>	<b>6</b>	<input type="checkbox"/>	<input type="checkbox"/>
Provision of resources	6.1	<input type="checkbox"/>	<input type="checkbox"/>
<b>Human resources (title only)</b>	<b>6.2</b>	<input type="checkbox"/>	<input type="checkbox"/>
General	6.2.1	<input type="checkbox"/>	<input type="checkbox"/>
Competence, training and awareness	6.2.2	<input type="checkbox"/>	<input type="checkbox"/>
Infrastructure	6.3	<input type="checkbox"/>	<input type="checkbox"/>
Work environment	6.4	<input type="checkbox"/>	<input type="checkbox"/>
<b>Product realization (title only)</b>	<b>7</b>	<input type="checkbox"/>	<input type="checkbox"/>
Planning of product realization	7.1	<input type="checkbox"/>	<input type="checkbox"/>
<b>Customer-related Processes (title only)</b>	<b>7.2</b>	<input type="checkbox"/>	<input type="checkbox"/>
Determination of requirements related to the product	7.2.1	<input type="checkbox"/>	<input type="checkbox"/>
Review of requirements related to the product	7.2.2	<input type="checkbox"/>	<input type="checkbox"/>
Customer communication	7.2.3	<input type="checkbox"/>	<input type="checkbox"/>
<b>Design and Development (title only)</b>	<b>7.3</b>	<input type="checkbox"/>	<input type="checkbox"/>
Design and development planning	7.3.1	<input type="checkbox"/>	<input type="checkbox"/>
Design and development inputs	7.3.2	<input type="checkbox"/>	<input type="checkbox"/>
Design and development outputs	7.3.3	<input type="checkbox"/>	<input type="checkbox"/>

**EXHIBIT 3**

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**PRODUCT MANAGER SOLDIER PROTECTIVE EQUIPMENT  
ISO 9001:2008 CROSSWALK**

<b>ISO 9001:2008 Clause</b>	<b>Company Quality Management System</b>		<b>Compliance Statement</b>
<b>Design and development</b> (title only-continued)	<b>7.3</b>		
Design and development review	7.3.4		
Design and development verification	7.3.5	<input type="checkbox"/>	<input type="checkbox"/>
Design and development validation	7.3.6	<input type="checkbox"/>	<input type="checkbox"/>
Control of design and development changes	7.3.7	<input type="checkbox"/>	<input type="checkbox"/>
<b>Purchasing</b> (title only)	<b>7.4</b>	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing process	7.4.1	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing information	7.4.2	<input type="checkbox"/>	<input type="checkbox"/>
Verification of purchased product	7.4.3	<input type="checkbox"/>	<input type="checkbox"/>
<b>Production and service provision</b> (title only)	<b>7.5</b>	<input type="checkbox"/>	<input type="checkbox"/>
Control of production and service provision	7.5.1	<input type="checkbox"/>	<input type="checkbox"/>
Validation of processes for production and service provision	7.5.2	<input type="checkbox"/>	<input type="checkbox"/>
Identification and traceability	7.5.3	<input type="checkbox"/>	<input type="checkbox"/>
Customer property	7.5.4	<input type="checkbox"/>	<input type="checkbox"/>
Preservation of product	7.5.5	<input type="checkbox"/>	<input type="checkbox"/>
Control of monitoring and measuring equipment	7.6	<input type="checkbox"/>	<input type="checkbox"/>

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**EXHIBIT 3**

**PRODUCT MANAGER SOLDIER PROTECTIVE EQUIPMENT  
ISO 9001:2008 CROSSWALK**

<b>ISO 9001:2008 Clause</b>	<b>Company Quality Management System</b>		<b>Compliance Statement</b>
<b>Measurement, analysis and improvement (title only)</b>	<b>8</b>	[]	[]
General	8.1	[]	[]
<b>Monitoring and measurement (title only)</b>	<b>8.2</b>	[]	[]
Customer satisfaction	8.2.1	[]	[]
Internal audit	8.2.2	[]	[]
Monitoring and measurement of processes	8.2.3	[]	[]
Monitoring and measurement of product	8.2.4	[]	[]
Control of nonconforming product	8.3	[]	[]
Analysis of data	8.4	[]	[]
<b>Improvement (title only)</b>	<b>8.5</b>	[]	[]
Continual improvement	8.5.1	[]	[]
Corrective action	8.5.2	[]	[]
Preventive action	8.5.3	[]	[]

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**EXHIBIT 3**

**PRODUCT MANAGER SOLDIER PROTECTIVE EQUIPMENT  
ISO 9001:2008 CROSSWALK**

Submitting Activity		
a. Typed Name ( <i>First, Middle Initial, Last</i> )	b. TITLE	c. DIGITAL SIGNATURE
		X

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**22.4 - EXHIBIT 4**

**CORRECTIVE ACTION REPORT FORM  
INSTRUCTION PAGE 1**

Discipline Category	Requested Information
<b>Problem Description</b>  <b>Section 1</b>	<p>Problem Description – The following shall be documented:</p> <ul style="list-style-type: none"><li>▪ A detailed, specific description of the problem</li><li>▪ How many items were initially found that contain the problem</li><li>▪ When was the problem discovered</li><li>▪ Where was the problem discovered</li></ul> <p>How was the problem discovered</p> <p><b>Note:</b> This section will be completed by the CAR Issuing Activity.</p>
<b>Problem Solution</b>  <b>Team</b>  <b>Section 2</b>	<p>A list of Team Members that includes the following information shall be documented:</p> <ul style="list-style-type: none"><li>▪ Member name</li><li>▪ Member title</li><li>▪ Member phone number</li><li>▪ Approval authority</li><li>▪ Member e-mail address</li></ul>
<b>Containment Actions</b>  <b>/ Short Term</b> <b>Corrections</b>  <b>Section 3</b>	<p>The quantity of suspect product at the Contractor’s facility (this include Subcontractors and material suppliers). This is to include the method of Quarantine, Quarantine Identification, method of Certification against the problem and Certification Identification. (Example: If product is screened and bad product is removed, good product is re-packaged and the package has a green “Certified” label adhered to it).</p> <p>The quantity of suspect product in transit. This is to include the method of notification to the recipient. A proposed method of Certification against the problem (Return Authorization, Contractor to go on-site and rework or screen product, etc.). A method of Certification Identification.</p> <p>The quantity of suspect product in the Government’s possession. This is to include Return Authorization and details of Quarantine and Certification upon receipt back into the Contractor’s facility, or details of arrangements made for Quarantine and Certification at the Government’s facility.</p>

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<p><b>Root Cause Analysis</b> <b>Section 4</b></p>	<p>Root Cause Analysis – The following shall be documented:</p> <ul style="list-style-type: none"><li>▪ An explanation of why the failure happened.</li><li>▪ An explanation of why the failure was not detected.</li></ul> <p><u>NOTE</u>: Root Cause Verification – Explain in detail what actions were taken to assure the <u>TRUE</u> Root Cause was found</p>
<p><b>Corrective Action Plan</b> <b>Section 5</b></p>	<p>Document the specific plan for changes to meet the contract and product requirements for the items that were out of control. This plan shall include the responsible individual for each action plan item along with the expected date of completion.</p>

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## EXHIBIT 4

### CORRECTIVE ACTION REPORT FORM INSTRUCTION PAGE

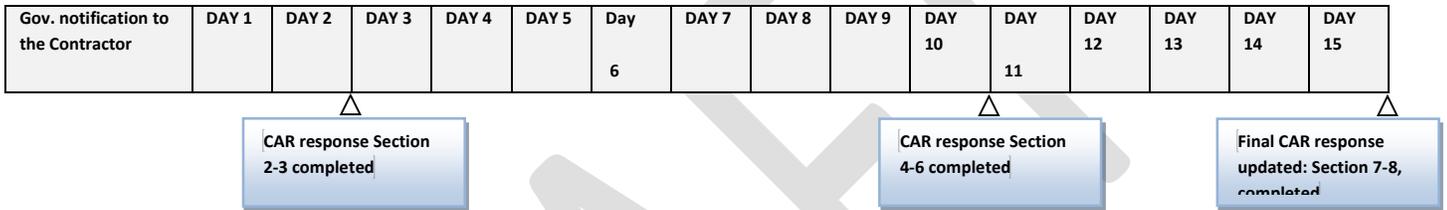
Discipline Category	Requested Information
<b>Validation</b>  <b>Section 6</b>	<ul style="list-style-type: none"><li>▪ Identify each nonconformance individually and include the corrective action implemented.</li></ul> <p>Applicable to the occurrence of the problem:</p> <ul style="list-style-type: none"><li>▪ List each Action individually and include the date of implementation and the name of the Team Member responsible.</li><li>▪ Provide detail for each Action of how it was proven that the action taken eliminated the problem. Include the date and the name of the Team Member responsible.</li></ul> <p>Applicable to the non-detection of the problem:</p> <ul style="list-style-type: none"><li>▪ List each Action individually and include the date of implementation and the name of the Team Member responsible.</li><li>▪ Provide detail for each Action of how it was proven that the action taken eliminated the problem. Include the date and the name of the Team Member responsible.</li></ul> <p>The following shall be documented:</p> <ul style="list-style-type: none"><li>▪ Describe the methods used (i.e. – number of trials with corrections in place, measurements, inspections, etc; this includes data on the number of items inspected vs. number of subject defects found, etc.) to verify the actions taken are effective and will remain effective. Include hard data as applicable.</li></ul>
<b>Prevention</b>  <i>Error Proofing</i>  <b>Section 7</b>	<ul style="list-style-type: none"><li>▪ Consider other processes where these Corrective Actions could be of benefit.</li><li>▪ Identify Poke-Yoke's or error proofing processes implemented for each problem.</li></ul>
<b>Standardization and Control</b>  <b>Section 7B</b>	<p>The following shall be documented:</p> <ul style="list-style-type: none"><li>▪ Provide details regarding updates of documents such as – Process Failure Modes and Effects Analysis (FMEA), Process Control Plan, Process Flow Diagrams, Visual Aids, Work Instructions, Operating Procedures, Training Methods / Records, Preventive Maintenance Plans, Etc.</li></ul> <p>Examples of each, as applicable, should be included with the Corrective Action Report.</p>
<b>Section 8</b>	<p>The following shall be documented:</p>

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- List the Team Members by name, input the date and allow each Team Member the opportunity to comment on the project.
- Secure DCMA signature on CAR response

## CAR Timeline:

**NOTE:** Contractor shall not exceed 15 working days for final CAR response without written request for an extension from DCMA.



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**EXHIBIT 4**

**CORRECTIVE ACTION REPORT FORM**

Supplier:		
Address:		
Point of Contact:	Phone Number:	Fax Number:
CAR Number:	CAR Date: <a href="#">Click here to enter a date.</a>	
Status:		
Recurrent Failure:		
Part Name:	Affected Part Number:	
<b>1. Problem Description</b>		
Description of the problem:		
How many parts have the problem?		
When were the parts found?		
Where were the parts found?		

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How were the parts found?	

**2. Problem Solution Team**

Name:	Position:	Phone Number:	Email Address:

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**EXHIBIT 4**

**CORRECTIVE ACTION REPORT FORM**

**3. Containment Action**

*Your action taken to capture all non-conforming product in your inventory, finished goods, WIP, & in transit, prior to receipt*

Action:

Assignee:

Date: [Click here to enter a date.](#)

*At Government Facility*

Action:

Assignee:

Date: [Click here to enter a date.](#)

Verification (Date and result):

*Material at Government Facility Disposition*

**DRAFT**

	No. RMA:	
<i>Material in Transit</i>		
Action:		
Assignee:	Date: <a href="#">Click here to enter a date.</a>	
Verification (Date and result):		
<i>At Supplier's Facility</i>		
Action:		
Total Number of parts sorted:	Percentage defective:	

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Total Number of defective parts:	What is the identification mark to signify?
Assignee:	Date: <a href="#">Click here to enter a date.</a>

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**EXHIBIT 4**

**CORRECTIVE ACTION REPORT FORM**

**4. Root Cause Analysis**

*Use the "5 Why's Analysis" technique to determine the most basic cause that resulted in a nonconformity that can be reasonably identified, fixed, or eliminated through process improvement.*

Why did the failure occur?

	1 <sup>st</sup> Cause	2 <sup>nd</sup> Cause	3 <sup>rd</sup> Cause
1. Why?			
2. Why?			
3. Why?			
4. Why?			
5. Why?			

Why was the failure not detected?

	1 <sup>st</sup> Cause	2 <sup>nd</sup> Cause	3 <sup>rd</sup> Cause
1. Why?			
2. Why?			
3. Why?			
4. Why?			
5. Why?			

**Verification of Effectiveness**

*Explain in detail what actions were taken to verify that the root cause was found and effective.*

--

**5. Identify Solutions**

*Solutions that address and correct the root cause. Solutions determined to be the best of all alternatives. Document and verify the permanent Corrective Action in the Action Item Table*

Applicable to occurrence of failure

Actions	Date	Assignee
	Click here to enter a date.	
	Click here to enter a date.	
	Click here to enter a date.	

How did you validate that the action/improvement measure eliminated the non conformance?

Actions	Date	Assignee
---------	------	----------

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	Click here to enter a date.	
	Click here to enter a date.	
	Click here to enter a date.	
Applicable to non-detection of failure		
<b>Actions</b>	<b>Date</b>	<b>Assignee</b>
	Click here to enter a date.	
	Click here to enter a date.	
	Click here to enter a date.	

**6. Validation**

*Implement and validate to ensure that corrective action does "what it is supposed to do." Detect undesirable side effect. Document this on the action Item Table. Return to root cause analysis, if necessary*

Evidence:

--	--

Assignee:	Date: <a href="#">Click here to enter a date.</a>
-----------	---

**7. Prevention (Design/Information System Review)**

*Determine what improvements in the systems and processes would prevent problem from recurring. Ensure that corrective action remains in place and are successful.*

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Assignee:	Date: <a href="#">Click here to enter a date.</a>
<i>Were Pokes-Yokes (Error Proofing) Implemented because of this failure?</i>	
Yes (Describe the operation):	No (Why not?):

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**EXHIBIT 4**

**CORRECTIVE ACTION REPORT FORM**

7B. Standardization and Control:					
Check if Applicable	Document	Assignee	Completion		What Changed?
			Planned	Actual	
	Control Plan				
	FMEA				
	Flow Process Diagram				
	Visual Aid				
	Operation Standards				
	Manufacturing Set-up Sheet				
	Manufacturing Check Sheet				
	Process Work Instructions				
	QA Inspection Forms				
	Preventive Maintenance Plan				
	Job Certifications/ Recertification requirement				
	Other				

**8B. Attach any additional information to end of this report.**

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Submitted By: Signature/Title: X _____	Effect Date: Click here to enter a date.  X _____	Date Submitted: Click here to enter a date.
Government Status:	Government Signature/Title:  X _____	Date: Click here to enter a date..

**8B. Defense Contract Management Agency.**

Reviewed By: Signature/Title: X _____	Effect Date: Click here to enter a date.  X _____	Date Submitted: Click here to enter a date.
DCMA Status:	DCMA Signature/Title:  X _____	Date: Click here to enter a date.

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**EXHIBIT 4**

**CORRECTIVE ACTION REPORT FORM**

<b>Action Item Table</b>									
<b>Action</b>			<b>Implement and Verify Actions</b>						
<b>Action Number</b>	<b>Fault/item</b>	<b>Containment/Corrective Action</b>	<b>Verify</b>	<b>How Verified</b>	<b>Action</b>	<b>Assignee</b>	<b>Planned</b>	<b>Actual</b>	<b>Status</b>

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**22.5 - EXHIBIT 5**

**PM SPE FORM 15: PROCESS CONTROL PLAN**

Proc. Step No.	Process Name	Machine, Device, Tools for Manufacturing	Process Parameters	Product Characteristics	Class	Product / Process Specification	Evaluation Method	Sample Size / Frequency	Analysis Method	Reactions if Out-of-Control Conditions are Encountered