

STATEMENT OF WORK (SOW)
FOR
CUT AND SEW SERVICES
OF
CHEMICAL WARFARE PROTECTIVE OPERATIONAL COVERALLS
IN
CADPAT™ (TW) TEMPERATE WOODLAND
AND
CADPAT™ (AR) ARID REGION

NOTICE: This documentation has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.



AVIS: Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçues originalement doivent continuer de s'appliquer.

RDIMS 4930060

1 **OBJECTIVE.** The Department of National Defence's Directorate Soldier Systems Program Management (DSSPM) has a requirement to get Operational Chemical Warfare Protective Coveralls manufactured in CADPAT™ (TW) Temperate Woodland and (AR) Arid Region using Government Supplied Materiel.

2 REFERENCE DOCUMENTS

2.1 The referenced documents and all other specifications/documents/drawings called up herein form part of this SOW to the extent specified, and are supportive of the SOW when referenced in the Requirements Section. All other document references are to be considered supplemental information only.

2.2 **Manufacturing Data.** A list of applicable specifications, documents and drawings are contained in Appendix 1 Manufacturing Data for Coverall, Chemical Warfare (CW) Protective, Horizon 1, General Purpose Operational & Training, CADPAT™.

2.2.1 Government Supplied Materiel (GSM). The following items called up in the manufacturing data will be provided as GSM, all other items must be provided by the Contractor. Any excess material not consumed in the manufacture of the garments must be returned to DND.

- a. Insignia Canadian Flag, Olive drab, NSN 8455-21-899-3380
- b. Insignia Canadian Flag, Tan, NSN 8455-20-001-7020
- c. Temperate Woodland Shell material, 8305-20-003-8504. Approximate quantity 3,600 meters
- d. Arid Region Shell material, 8305-20-003-8505. Approximate quantity 1,800 meters
- e. Cloth Chemical Warfare material, 8305-20-003-8503. Approximate quantity 14,700 meters

2.3 Appendices

2.3.1 The following Appendices form part of this SOW:

Appendix 1	Manufacturing DATA
Appendix 2	CCWPH152, PDM package
Appendix 3	Specification for Label D-80-001-055/SF-001
Appendix 4	Specification for Fasteners, slide, interlocking D-83-001-005/SF-001
Appendix 5	Specification for Cord, Plaited, Spun Synthetic D-80-001-028/SF-001

Appendix 6: CFTPO Coveralls

- 2.4 **Applicable Documents** These documents and all other specifications/ drawings/patterns called up therein form part of this SOW to the extent specified herein and are supportive of the SOW when referenced in the Requirements Section
- 2.4.1 **A-A-55126B** Manufacturing Data for Tape, Fastener, Nylon Hook and Loops.
- 3 **PRODUCTION** The Contractor must manufacture garments in accordance with Appendix 1: Manufacturing Data.
- 3.1 For specific tasks the Contractor must refer to the supporting information in:
- a. Appendix 2: CCWPH152, Product Data Management (PDM) Package.
 - b. Appendix 3: Specification for Label, D-80-001-055/SF-001.
 - c. Appendix 4: Specification for Fasteners, slide, Interlocking, D-83-001-005/SF-001.
 - d. Appendix 5: Specification for Cord, Plaited, Spun Synthetic, D-80-001-028/SF-001.
- 3.2 DND reserves the right to conduct testing to verify product compliance with any or all of the performance requirements defined in the specifications.
- 4 **PRE-PRODUCTION** Before full production commences, the Contractor must produce pre-production samples that will go through two stages of pre-production approval. The pre-production samples must be representative of the finished product in all respects.
- 4.1 PPS-1: The first stage evaluates the workmanship of the garment. Once contract is awarded, the Contractor must provide one garment sample for manufacturing and workmanship evaluation. This evaluation will be performed by DND personnel to check for defects and deviations from the manufacturing instructions (Appendix 1). Table 1 below will be used for inspection guideline. PPS-1 must successfully pass the workmanship evaluation before the Contractor can manufacture the samples required for PPS-2.
- a. PPS-1 must represent NSN 20-0083145 (AR size 7344)
 - b. PPS-1 must be received within three weeks of confirmation of receipt of GSM at the Contractor's facility

Table 1: PPS-1 Pre-Production Inspection Requirements

Inspection	Specific Properties to be checked
Garment construction Visual Examination	<ol style="list-style-type: none"> 1. All seams shall be lockchain stitch type 401. 2. All seams shall be 3/8-inch (9.5 mm) wide. 3. Front closure, zipper, top and bottom. 4. Hood opening circumference shall be as per PDM page 12 5. Verify three placements of chemical agent detector paper patch. Para 3.7.6.3, Appendix 1 6. Any unfinished edges or non-conforming seams or stitches. 7. Any incorrect colour or markings. 8. Any material defects including cuts, tears, holes or abrasion marks. 9. Any reworking. ABSOLUTELY NO REWORKING OF THE GARMENT IS ALLOWED ON BARRIER. 10. Loops at front are in proper position in accordance with patterns markings. 11. Serging - 10 stitches per inch, type 501 to 505. 12. Marking label shall be in-accordance with Appendix 1, Para 3.9. 13. Finished measurements in accordance with the Scale of measurements. 14. Garment bag shall have no folds, wrinkles, tears, holes, cuts or delamination of storage bag in Figure 2 of CFTPO-Coveralls.
Workmanship	<ol style="list-style-type: none"> 1. Any malformed or incorrectly assembled or secured components. 2. Any wrongly-sized or missing components. 3. Any incorrect labelling. 4. Any Oily, waxy, greasy, or dirty components.

4.2 PPS-2: The second stage subjects the garments to a Whole Body Simulant test to evaluate the protective properties. After approval of PPS-1, the Contractor must manufacture qty 6 garments for Whole Body Simulant testing. These tests will be performed in accordance with test method MIST, ASTM F2588-12, at the expense of the Crown. Once satisfactory test results are achieved, the Contractor can move on to the Production stage.

- a. PPS-2 must include 6 garments of 3 different sizes:
 - Qty 2 garments representing NSN 20-0083139 (AR size 7040)
 - Qty 2 garments representing NSN 20-0083144 (AR size 7340)
 - Qty 2 garments representing NSN 20-0083145 (AR size 7344)
- b. PPS-2 must be received within three weeks of approval by DND of PPS-1

- 5 **PACKAGING** The packaging and packing must be in accordance with Appendix 6: CFTPO Coveralls and with the additional requirements below:
- 5.1 Coveralls must be clean and dry prior to packaging;
 - 5.2 Excess air must be squeezed out by hand before bag closing;
 - 5.3 The pouch must be fusion heat sealed along its entire perimeter. There must be no fold-over wrinkles, delamination, flex-cracks, tears, holes, cuts, sharp creases or bubbles in the laminates. The integrity of the heat seals may be tested by squeezing the bag while holding the heat seal under 1-inch (2.5 cm) of water for 15 seconds and observing for air bubbles. Air bubbles indicate that the bags are not properly sealed;
 - 5.4 Six units of desiccant, freshly withdrawn from the bulk container, must be placed in the pouch immediately prior to sealing;
 - 5.5 The bulk containers of desiccant are not opened for any longer period than is necessary to withdraw the units of desiccant (see the cautionary label on the bulk containers);
 - 5.6 The coveralls must be packed four per container. The container must be 24-inches by 15-inches by 11 1/2 inches (61 cm by 38 cm by 29 cm).

6 **DELIVERABLES**

- 6.1 The Contractor must deliver at least 1500 garments in accordance with the size roll in the contract. It is desirable to maximize the number of garments produced up to a qty of 1700 or greater.
- 6.2 Delivery of the first 500 garments must not occur later than 4 months after Contract Award.
- 6.3 Delivery of the remainder must not occur later than 6 months after Contract Award.