

67-CCL

ENGINEERING CHANGE PROPOSAL (ECP), PAGE 1				1. DATE (YYMMDD) 010501		Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.						2. PROCURING ACTIVITY NO. LIQ2004	
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.						3. DODAAC	
4. ORIGINATOR a. TYPED NAME (First, Middle Initial, Last) SERGIO E. GALECKI			b. ADDRESS (Street, City, State, Zip Code) ARDEC-TACOM AMSTA-AR-QAC-C, BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000			5. CLASS OF ECP I	
8. ECP DESIGNATION a. MODEL/TYPE M249			b. CAGE CODE 19200			6. JUST. CODE C	
c. SYSTEM DESIGNATION M249 MACHINE GUN			9. BASELINE AFFECTED FUNCTIONAL <input type="checkbox"/> PRODUCT <input checked="" type="checkbox"/> ALLOCATED		7. PRIORITY R		
d. ECP NO. LIQ2004			e. TYPE		f. REV		
11. SPECIFICATIONS AFFECTED			10. OTHER SYS./CONFIG. ITEMS AFFECTED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>				
11. SPECIFICATIONS AFFECTED			12. DRAWINGS AFFECTED				
	CAGE Code	Specification/Document No.	Rev.	SCN	CAGE Code	Number	Rev.
a. SYSTEM							
b. DEVELOPMENT							
c. PRODUCT							
13. TITLE OF CHANGE UPDATE QAPS TO LATEST FORMAT							
14. CONTRACT NO. AND LINE ITEM				15. PROCURING CONTRACTING OFFICER			
				a. NAME (First, Middle Initial, Last)			
				b. CODE		c. TELEPHONE NO.	
16. CONFIGURATION ITEM NOMENCLATURE M249 MACHINE GUN						17. IN PRODUCTION YES <input type="checkbox"/> NO <input type="checkbox"/>	
18. ALL LOWER LEVEL ITEMS AFFECTED							
a. NOMENCLATURE PIN, SPRING			b. PART NO.		c. NSN		
19. DESCRIPTION OF CHANGE UPDATE QAPS TO LATEST FORMAT							
20. NEED FOR CHANGE TO INCORPORATE LATEST SPECIFICATION CALLOUTS							
21. PRODUCTION EFFECTIVITY BY SERIAL NUMBER				22. EFFECT ON PRODUCTION DELIVERY SCHEDULE			
23. RETROFIT							
a. RECOMMENDED ITEM EFFECTIVITY				b. SHIP / VEHICLE CLASS AFFECTED			
c. ESTIMATED KIT DELIVERY SCHEDULE				d. LOCATIONS OR SHIP / VEHICLE NUMBERS AFFECTED			
24. ESTIMATED COSTS / SAVINGS UNDER CONTRACT				25. ESTIMATED NET TOTAL COSTS / SAVINGS			
26. SUBMITTING ACTIVITY a. AUTHORIZED SIGNATURE				b. TITLE			
27. APPROVAL / DISAPPROVAL w/mod							
a. CLASS I <input checked="" type="checkbox"/> APPROVAL RECOMMENDED <input type="checkbox"/> DISAPPROVAL RECOMMENDED		b. CLASS II <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED		c. CLASS II CONCUR IN CLASSIFICATION OF CHANGE <input type="checkbox"/> DO NOT CONCUR IN CLASSIFICATION OF CHANGE			
d. GOVERNMENT ACTIVITY				e. SIGNATURE		f. DATE SIGNED (YYMMDD)	
g. APPROVAL w/mod <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED		h. GOVERNMENT ACTIVITY TACOM-ARDEC, AMSTA-AR-CCL-F		i. SIGNATURE Ronald E. Ellis Chief, CCAC Prod & Field Sp Team		j. DATE SIGNED (YYMMDD) 20010620	

11 MAY 2001

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	OMB No. 0704 - 0188
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. LIQ2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO.
a. TYPED NAME (First, Middle Initial, Last)	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	8. DOCUMENT NO. SQ 9348240
Sergio E. Galecki			
9. TITLE OF DOCUMENT	10. REVISION LETTER		11. ECP NO.
PIN, SPRING	a. CURRENT -	b. NEW A	LIQ2004
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES			Sheet 1 of 1
M249 Machine Gun			
13. DESCRIPTION OF REVISION			
UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture.		
	(2.) Revised document must be received before manufacture may incorporate this change.		
	(3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT	c. TYPED NAME (First, Middle Initial, Last)		
RONALD E. ELBE, ARDEC, AMSTA-AR-CCL-F			
d. TITLE	e. SIGNATURE	f. DATE SIGNED	
Ronald E. Elbe Chief, CCAC Prod & Field Spt Team		20010620	
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)	f. DATE SIGNED	

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348240 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. PART I. LIST OF APPLICABLE DOCUMENTS

DRAWINGS

9348240 Pin, Spring

DRAFT

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

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REVISIONS

4. RELEASE NUMBER																					
5. DATE																					
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5. DATE																					
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A														
	7. SHEET	1	2	3	4	5	6														
	8. REVISION																				
	7. SHEET																				

8. QAP FOR: <p style="text-align: center;">Pin, Spring: M240 M.G.</p>										FSCM:					CAGE CODE: <p style="text-align: center;">19200</p>				
9. SUBMITTED BY:										10. QAP NO: <p style="text-align: center;">9348240</p>									
11. DATE: <p style="text-align: center;">921215</p>			12. APPROVED:					13. RELEASE NO.: <p style="text-align: center;">G1S2002R1</p>			14. PAGE NO.: <p style="text-align: center;">1</p>			15. NO. OF PAGES: <p style="text-align: center;">6</p>					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

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1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

					FSCM:	CAGE CODE: 19200
18 REVISION	A					10. QAP NO: 9348240
SYMBOL						14. PAGE NO.: 2
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

DRAFT

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

					FSCM:	CAGE CODE: 19200
16 REVISION	A					10. QAP NO: 9348240
SYMBOL						14. PAGE NO.: 3
AND DATE						

QUALITY ASSURANCE PROVISIONS DRAFT - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

CLASS	CHARACTERISTICS	ZONE	CONFORMANCE CRITERIA	INSPECTION METHOD
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Diameter (1.75)		III	SMTE
102.	Rockwell Hardness			SMTE/501
103.	Salt Spray			502
104.	Coating Weight			503
105.	Supplement oil			504
<u>MINOR:</u>				
201.	Length (12.5)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348240
402.	Hardness	CTR	Dwg. 9348240/501
403.	Protective Finish	CTR	Dwg. 9348240

					FSCM:	CAGE CODE: 19200
18 REVISION	A				10. QAP NO: 9348240 14. PAGE NO.: 4	
SYMBOL						
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. 501. Hardness. Five samples will be selected from each heat treatment batch. Testing shall be in accordance with ASTM E18. Each test treatment batch shall remain segregated until all tests are completed. If any sample fails to comply with the hardness requirements, it shall be classified as defective and the lot shall be rejected. A heat treatment batch is defined as parts that have been heat treated at the same time in the same furnace and quench bath for all phases of the heat treatment process.

502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ~~all~~ treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.

503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.

504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.

2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.

3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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16 REVISION	A				10. QAP NO: 9348240	
SYMBOL					14. PAGE NO.: 5	
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.
- a. Contract number or purchase order number.
 - b. Drawing number with revision letter and date of revision.
 - c. Nomenclature of item inspected (drawing title).
 - d. Number of pieces inspected.
 - e. Individual characteristics inspected.
 - f. Conformance/nonconformance criteria.
 - g. Description and quality of defects found.
 - h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
 - i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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16 REVISION	A					10. QAP NO: 9348240
SYMBOL						14. PAGE NO.: 6
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD) 010430	Form Approved OMB No. 0704 - 0188
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4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	8. DOCUMENT NO. SQ 9348218
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	11. ECP NO. LIQ2004
9. TITLE OF DOCUMENT PIN, RETAINING, FRONT	10. REVISION LETTER a. CURRENT - b. NEW A		Sheet 1 of 1
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture. (2.) Revised document must be received before manufacture may incorporate this change. (3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO ACCEPT REVISION	c. TYPED NAME (First, Middle Initial, Last)		
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		f. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348218 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. PART I. LIST OF APPLICABLE DOCUMENTS

DRAWINGS

9348218 Pin, Retaining, Front

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

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 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

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REVISIONS

4. RELEASE NUMBER																			
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REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A												
	7. SHEET	1	2	3	4	5	6												
	6. REVISION																		
	7. SHEET																		
8. QAP FOR:										FSCM:					CAGE CODE:				
Pin, Retaining, Front: M249 M.G.															19200				
9. SUBMITTED BY:										10. QAP NO:									
										9348218									
11. DATE:		12. APPROVED:				13. RELEASE NO.:			14. PAGE NO.:			15. NO. OF PAGES:							
921215						G1S2002R1			1			6							

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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					FSCM:	CAGE CODE: 19200
16 REVISION	A					10. QAP NO: 9348218
SYMBOL						14. PAGE NO.: 2
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A					10. QAP NO: 9348218
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Diameter (2.35)		III	SMTE
102.	Rockwell Hardness			SMTE/501
103.	Salt Spray			502
104.	Coating Weight			503
105.	Supplement oil			504
<u>MINOR:</u>				
201.	Length (10.25)		II	SMTE
202.	Protective finish		II	SMTE
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348218
402.	Hardness	CTR	Dwg. 9348218/501
403.	Protective Finish	CTR	Dwg. 9348218

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SYMBOL						14. PAGE NO.: 4
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
501. Hardness. Five samples will be selected from each heat treatment batch. Testing shall be in accordance with ASTM E18. Each test treatment batch shall remain segregated until all tests are completed. If any sample fails to comply with the hardness requirements, it shall be classified as defective and the lot shall be rejected. A heat treatment batch is defined as parts that have been heat treated at the same time in the same furnace and quench bath for all phases of the heat treatment process.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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16 REVISION	A					10. QAP NO: 9348218
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AND DATE						5

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.

- a. Contract number or purchase order number.
- b. Drawing number with revision letter and date of revision.
- c. Nomenclature of item inspected (drawing title).
- d. Number of pieces inspected.
- e. Individual characteristics inspected.
- f. Conformance/nonconformance criteria.
- g. Description and quality of defects found.
- h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
- i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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16 REVISION	A					10. QAP NO: 9348218
SYMBOL						14. PAGE NO.: 6
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved OMB No. 0704 - 0188
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.			2. PROCURING ACTIVITY NO. L1Q2004
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO. 3
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	8. DOCUMENT NO. SQ 93A8234
9. TITLE OF DOCUMENT PIN SPRING	10. REVISION LETTER		11. ECP NO. L1Q2004
	a. CURRENT -	b. NEW A	
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			Sheet 1 of 1
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture.		
	(2.) Revised document must be received before manufacture may incorporate this change.		
	(3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT TACOM-ARDEC, AMSTA-AR-CCLF		c. TYPED NAME (First, Middle Initial, Last)	
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		f. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348234 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

9348234 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																			
5. DATE																			
4. RELEASE NUMBER																			
5. DATE																			
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A												
	7. SHEET	1	2	3	4	5	6												
	6. REVISION																		
	7. SHEET																		
8. QAP FOR:										FSCM:					CAGE CODE:				
Pin, Spring: M249 M.G.															19200				
9. SUBMITTED BY:										10. QAP NO:									
										9348234									
11. DATE:		12. APPROVED:				13. RELEASE NO.:			14. PAGE NO.:			15. NO. OF PAGES:							
921215						G1S2002R1			1			6							

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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16 REVISION	A						10. QAP NO: 9348234
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A					10. QAP NO: 9348234
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AND DATE						3

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (6.55)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348324
402.	Hardness	CTR	Dwg. 9348324/501
403.	Protective Finish	CTR	Dwg. 9348324

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16 REVISION	A					10. QAP NO: 9348234
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AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ~~oil~~ treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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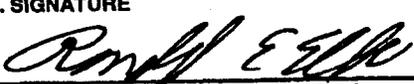
					FSCM:	CAGE CODE: 19200
16 REVISION	A					10. QAP NO: 9348234
SYMBOL						14. PAGE NO.: 5
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.
- a. Contract number or purchase order number.
 - b. Drawing number with revision letter and date of revision.
 - c. Nomenclature of item inspected (drawing title).
 - d. Number of pieces inspected.
 - e. Individual characteristics inspected.
 - f. Conformance/nonconformance criteria.
 - g. Description and quality of defects found.
 - h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
 - i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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					FSCM:	CAGE CODE: 19200
18 REVISION	A					10. QAP NO: 9348234
SYMBOL						14. PAGE NO.: 8
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved OMB No. 0704 - 0188
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. LIQ2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO. 4
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	8. DOCUMENT NO. SQ 9348325
9. TITLE OF DOCUMENT PIN, SPRING	10. REVISION LETTER a. CURRENT - b. NEW A		11. ECP NO. LIQ2004
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			Sheet 1 of 1
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture. (2.) Revised document must be received before manufacture may incorporate this change. (3.) Custodian of master document shall make above revision and furnish revised document.		
b. DOCUMENT NO. AMSTA-AR-QAC-C	c. TYPED NAME (First, Middle Initial, Last)		
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		f. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348325 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

9348235 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																				
5. DATE																				
4. RELEASE NUMBER																				
5. DATE																				
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A													
	7. SHEET	1	2	3	4	5	6													
	6. REVISION																			
	7. SHEET																			

8. QAP FOR: <p style="text-align: center;">Pin, Spring, M249 M.G.</p>										FSCM:					CAGE CODE: <p style="text-align: center;">19200</p>				
9. SUBMITTED BY:										10. QAP NO: <p style="text-align: center;">9348325</p>									
11. DATE: <p style="text-align: center;">921215</p>			12. APPROVED:					13. RELEASE NO.: <p style="text-align: center;">G1S2002R1</p>			14. PAGE NO.: <p style="text-align: center;">1</p>			15. NO. OF PAGES: <p style="text-align: center;">6</p>					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

- g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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16 REVISION	A				10. QAP NO: 9348325	
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A					10. QAP NO: 9348325
SYMBOL						14. PAGE NO.: 3
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (3.9)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348325
402.	Hardness	CTR	Dwg. 9348325/501
403.	Protective Finish	CTR	Dwg. 9348325

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18 REVISION	A					10. QAP NO: 9348325
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ^{oil} treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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16 REVISION	A				10. QAP NO: 9348325
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.

- a. Contract number or purchase order number.
- b. Drawing number with revision letter and date of revision.
- c. Nomenclature of item inspected (drawing title).
- d. Number of pieces inspected.
- e. Individual characteristics inspected.
- f. Conformance/nonconformance criteria.
- g. Description and quality of defects found.
- h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
- i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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16 REVISION	A					10. QAP NO: 9348325
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AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	OMB No. 0704 - 0188
<small>Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small> PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. LIQ2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO.
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	5 8. DOCUMENT NO. SQ 9348337
9. TITLE OF DOCUMENT PIN, SPRING		10. REVISION LETTER	
		a. CURRENT -	b. NEW A
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			11. ECP NO. LIQ2004
Sheet 1 of 1			
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture.		
	(2.) Revised document must be received before manufacture may incorporate this change.		
	(3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT TACOM-ARDEC, AMSTA-AR-CCL-F		c. TYPED NAME (First, Middle Initial, Last)	
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		f. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348337 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

9348337 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																			
5. DATE																			
4. RELEASE NUMBER																			
5. DATE																			
REVISION STATUS OF SHEETS	8. REVISION	A	A	A	A	A	A												
	7. SHEET	1	2	3	4	5	6												
	8. REVISION																		
	7. SHEET																		

8. QAP FOR: <p style="text-align: center;">Pin, Spring: M249 M.G.</p>										FSCM:			CAGE CODE: <p style="text-align: center;">19200</p>		
9. SUBMITTED BY:										10. QAP NO: <p style="text-align: center;">9348337</p>					
11. DATE: <p style="text-align: center;">921215</p>		12. APPROVED:				13. RELEASE NO.: <p style="text-align: center;">G1S2002R1</p>			14. PAGE NO.: <p style="text-align: center;">1</p>		15. NO. OF PAGES: <p style="text-align: center;">6</p>				

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. **PART II. CONFORMANCE PROVISIONS**

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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16 REVISION	A				10. QAP NO: 9348337	
SYMBOL					14. PAGE NO.: 2	
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A				10. QAP NO: 9348337
SYMBOL					14. PAGE NO.: 3
AND DATE					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. **PART III INSPECTION REQUIREMENTS**

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (3.4)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348337
402.	Hardness	CTR	Dwg. 9348337/501
403.	Protective Finish	CTR	Dwg. 9348337

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					FSCM:	CAGE CODE: 19200
16 REVISION	A					
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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18 REVISION	A				10. QAP NO: 9348337	
SYMBOL					14. PAGE NO.: 5	
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.

- a. Contract number or purchase order number.
- b. Drawing number with revision letter and date of revision.
- c. Nomenclature of item inspected (drawing title).
- d. Number of pieces inspected.
- e. Individual characteristics inspected.
- f. Conformance/nonconformance criteria.
- g. Description and quality of defects found.
- h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
- i. Date of inspection.
 - (1) Sampling Plan
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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16 REVISION	A				10. QAP NO: 9348337	
SYMBOL					14. PAGE NO.: 6	
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD) 010430	Form Approved OMB No. 0704 - 0188
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.			2. PROCURING ACTIVITY NO. L1Q2004
<small>Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small> PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			3. DODAAC
		4. ORIGINATOR	5. CAGE CODE
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	b. ADDRESS (Street, City, State, Zip Code) ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	6. NOR NO. 6
9. TITLE OF DOCUMENT PIN, SPRING	10. REVISION LETTER		8. DOCUMENT NO. SQ 9348353
	a. CURRENT -	b. NEW A	11. ECP NO. L1Q2004
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			Sheet 1 of 1
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	<input type="checkbox"/> (1.) Existing document supplemented by this NOR may be used in manufacture. <input type="checkbox"/> (2.) Revised document must be received before manufacture may incorporate this change. <input checked="" type="checkbox"/> (3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT TACOM-ARDEC, AMSTA-AR-CCL-F		c. TYPED NAME (First, Middle Initial, Last)	
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		f. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348353 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

9348353 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																				
5. DATE																				
4. RELEASE NUMBER																				
5. DATE																				
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A													
	7. SHEET	1	2	3	4	5	6													
	6. REVISION																			
	7. SHEET																			

8. QAP FOR: <p style="text-align: center;">Pin, Spring: M249 M.G.</p>						FSCM:			CAGE CODE: <p style="text-align: center;">19200</p>		
9. SUBMITTED BY:						10. QAP NO: <p style="text-align: center;">9348353</p>					
11. DATE: <p style="text-align: center;">921215</p>		12. APPROVED:				13. RELEASE NO.: <p style="text-align: center;">G1S2002R1</p>		14. PAGE NO.: <p style="text-align: center;">1</p>		15. NO. OF PAGES: <p style="text-align: center;">6</p>	

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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				FSCM:	CAGE CODE: 19200
16 REVISION	A				10. QAP NO: 9348353
SYMBOL					14. PAGE NO.:
AND DATE					2

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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					FSCM:	CAGE CODE: 19200
16 REVISION	A					10. QAP NO: 9348353
SYMBOL						14. PAGE NO.: 3
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

CLASS	CHARACTERISTICS	ZONE	CONFORMANCE CRITERIA	INSPECTION METHOD
CRITICAL:	None			
MAJOR:				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
MINOR:				
201.	Diameter (2.85)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

NUMBER	CHARACTERISTIC	CERTIFICATION METHOD	TEST DATA TO COMPLY WITH
401.	Material	CTR	Dwg. 9348353
402.	Hardness	CTR	Dwg. 9348353/501
403.	Protective Finish	CTR	Dwg. 9348353

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				FSCM:	CAGE CODE: 19200
16 REVISION	A				10. QAP NO: 9348353
SYMBOL					14. PAGE NO.: 4
AND DATE					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental oil treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected. DIL
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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				FSCM:	CAGE CODE: 19200
18 REVISION	A				10. QAP NO: 9348353
SYMBOL					14. PAGE NO.:
AND DATE					5

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.

- a. Contract number or purchase order number.
- b. Drawing number with revision letter and date of revision.
- c. Nomenclature of item inspected (drawing title).
- d. Number of pieces inspected.
- e. Individual characteristics inspected.
- f. Conformance/nonconformance criteria.
- g. Description and quality of defects found.
- h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
- i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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					FSCM:	CAGE CODE: 19200
16 REVISION	A					10. QAP NO: 9348353
SYMBOL						14. PAGE NO.:
AND DATE						6

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	OMB No. 0704 - 0188
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Service, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. L1B2004
4. ORIGINATOR		5. CAGE CODE	6. NOR NO. 7
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	b. ADDRESS (Street, City, State, Zip Code) ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	8. DOCUMENT NO. SQ9348363
9. TITLE OF DOCUMENT PIN SPRING	10. REVISION LETTER a. CURRENT - b. NEW A		11. ECP NO. L1Q2004
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			Sheet 1 of 1
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture. (2.) Revised document must be received before manufacture may incorporate this change. (3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT TACOM-ARDEC, AMSTA-AR-CCL-F		c. TYPED NAME (First, Middle Initial, Last)	
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)	f. DATE SIGNED	

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348263 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

9348363 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																			
5. DATE																			
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5. DATE																			
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A												
	7. SHEET	1	2	3	4	5	6												
	6. REVISION																		
	7. SHEET																		

8. QAP FOR: <p style="text-align: center;">Pin, Spring: M249 M.G.</p>										FSCM:			CAGE CODE: <p style="text-align: center;">19200</p>		
9. SUBMITTED BY:										10. QAP NO: <p style="text-align: center;">9348363</p>					
11. DATE: <p style="text-align: center;">921215</p>		12. APPROVED:				13. RELEASE NO.: <p style="text-align: center;">G1S2002R1</p>		14. PAGE NO.: <p style="text-align: center;">1</p>		15. NO. OF PAGES: <p style="text-align: center;">6</p>					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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16 REVISION	A						10. QAP NO: 9348363
SYMBOL							14. PAGE NO.: 2
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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					FSCM:	CAGE CODE: 19200
16 REVISION	A				10. QAP NO: 9348363	
SYMBOL					14. PAGE NO.: 3	
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (4.5)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348363
402.	Hardness	CTR	Dwg. 9348363/501
403.	Protective Finish	CTR	Dwg. 9348363

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				FSCM:	CAGE CODE: 19200
18 REVISION	A				10. QAP NO: 9348363
SYMBOL					14. PAGE NO.:
AND DATE					4

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ~~oil~~ treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected. oil
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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16 REVISION	A					10. QAP NO: 9348363
SYMBOL						14. PAGE NO.:
AND DATE						5

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.

- a. Contract number or purchase order number.
- b. Drawing number with revision letter and date of revision.
- c. Nomenclature of item inspected (drawing title).
- d. Number of pieces inspected.
- e. Individual characteristics inspected.
- f. Conformance/nonconformance criteria.
- g. Description and quality of defects found.
- h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
- i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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					FSCM:	CAGE CODE: 19200
16 REVISION	A				10. QAP NO: 9348363	
SYMBOL					14. PAGE NO.: 6	
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	OMB No. 0704 - 0188
<small>Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small> PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. LIQ2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO.
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	8. DOCUMENT NO. SQ 9348394
9. TITLE OF DOCUMENT PIN, SPRING	10. REVISION LETTER		11. ECP NO. LIQ2004
		a. CURRENT -	b. NEW A
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			Sheet 1 of 1
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture. (2.) Revised document must be received before manufacture may incorporate this change. (3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT TAGC/ARDEC, AMSTA-AR-CCL-F	c. TYPED NAME (First, Middle Initial, Last)		
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		i. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348394 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

9348394 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																			
5. DATE																			
4. RELEASE NUMBER																			
5. DATE																			
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A												
	7. SHEET	1	2	3	4	5	6												
	6. REVISION																		
	7. SHEET																		
8. QAP FOR:										FSCM:					CAGE CODE:				
Pin, Spring: M249 M.G.															19200				
9. SUBMITTED BY:										10. QAP NO:									
										9348394									
11. DATE:		12. APPROVED:				13. RELEASE NO.:			14. PAGE NO.:			15. NO. OF PAGES:							
921215						G1S2002R1			1			6							

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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					FSCM:	CAGE CODE: 19200
18 REVISION	A					10. QAP NO: 9348394
SYMBOL						14. PAGE NO.: 2
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A				10. QAP NO: 9348394
SYMBOL					14. PAGE NO.: 3
AND DATE					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (2.35)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Vistal

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348394
402.	Hardness	CTR	Dwg. 9348394/501
403.	Protective Finish	CTR	Dwg. 9348394

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					FSCM:	CAGE CODE: 19200
16 REVISION	A					10. QAP NO: 9348394
SYMBOL						14. PAGE NO.: 4
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ^{oil} treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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16 REVISION	A					10. QAP NO: 9348394
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AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.
- a. Contract number or purchase order number.
 - b. Drawing number with revision letter and date of revision.
 - c. Nomenclature of item inspected (drawing title).
 - d. Number of pieces inspected.
 - e. Individual characteristics inspected.
 - f. Conformance/nonconformance criteria.
 - g. Description and quality of defects found.
 - h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
 - i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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					FSCM:	CAGE CODE: 19200
18 REVISION	A					10. QAP NO: 9348394
SYMBOL						14. PAGE NO.: 6
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved OMB No. 0704 - 0188
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	
<small>Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small> PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. LIQ2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO.
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	9 8. DOCUMENT NO. SQ 9348397
9. TITLE OF DOCUMENT PIN - SPRING	10. REVISION LETTER		11. ECP NO.
	a. CURRENT -	b. NEW A	LIQ2004
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			Sheet 1 of 1
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	<input type="checkbox"/> (1.) Existing document supplemented by this NOR may be used in manufacture. <input type="checkbox"/> (2.) Revised document must be received before manufacture may incorporate this change. <input type="checkbox"/> (3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT TACOM-ARDEC, AMSTA-AR-CCL-F		c. TYPED NAME (First, Middle Initial, Last)	
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		f. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348397 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. PART I. LIST OF APPLICABLE DOCUMENTS

DRAWINGS

9348397 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																				
5. DATE																				
4. RELEASE NUMBER																				
5. DATE																				
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A													
	7. SHEET	1	2	3	4	5	6													
	6. REVISION																			
	7. SHEET																			

8. QAP FOR: <p style="text-align: center;">Pin, Spring: M249 M.G.</p>						FSCM:		CAGE CODE: <p style="text-align: center;">19200</p>		
9. SUBMITTED BY:						10. QAP NO: <p style="text-align: center;">9348397</p>				
11. DATE: <p style="text-align: center;">921215</p>		12. APPROVED:			13. RELEASE NO.: <p style="text-align: center;">G1S2002R1</p>		14. PAGE NO.: <p style="text-align: center;">1</p>		15. NO. OF PAGES: <p style="text-align: center;">6</p>	

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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				FSCM:	CAGE CODE: 19200
16 REVISION	A				10. QAP NO: 9348397
SYMBOL					14. PAGE NO.:
AND DATE					2

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A					10. QAP NO: 9348397
SYMBOL						14. PAGE NO.:
AND DATE						3

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (4.5)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348397
402.	Hardness	CTR	Dwg. 9348397/501
403.	Protective Finish	CTR	Dwg. 9348397

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				FSCM:	CAGE CODE: 19200
16 REVISION	A				10. QAP NO: 9348397
SYMBOL					14. PAGE NO.: 4
AND DATE					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental oil treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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16 REVISION	A				10. QAP NO: 9348397	
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AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.
- a. Contract number or purchase order number.
 - b. Drawing number with revision letter and date of revision.
 - c. Nomenclature of item inspected (drawing title).
 - d. Number of pieces inspected.
 - e. Individual characteristics inspected.
 - f. Conformance/nonconformance criteria.
 - g. Description and quality of defects found.
 - h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
 - i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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					FSCM:	CAGE CODE: 19200
16 REVISION	A					10. QAP NO: 9348397
SYMBOL						14. PAGE NO.: 6
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved OMB No. 0704 - 0188
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. LIQ 2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO.
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	10 8. DOCUMENT NO. SQ 93A2398
9. TITLE OF DOCUMENT PIN, SPRING		10. REVISION LETTER	
		a. CURRENT -	b. NEW A
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			11. ECP NO. LIQ 2004
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture.		
	(2.) Revised document must be received before manufacture may incorporate this change.		
	(3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT TACOM-ARDEC, AMSTA-AR-CCL-F		c. TYPED NAME (First, Middle Initial, Last)	
d. TITLE Ronald E. Elbe Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		f. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348398 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

9348398 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																			
5. DATE																			
4. RELEASE NUMBER																			
5. DATE																			
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A												
	7. SHEET	1	2	3	4	5	6												
	6. REVISION																		
	7. SHEET																		

8. QAP FOR: Pin, Spring: M249 M.G. FSCM: CAGE CODE:
19200

9. SUBMITTED BY: 10. QAP NO:
9348398

11. DATE: 921215	12. APPROVED:	13. RELEASE NO.: G1S2002R1	14. PAGE NO.: 1	15. NO. OF PAGES: 6
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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18 REVISION	A				10. QAP NO: 9348398
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A					10. QAP NO: 9348398
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (2.85)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348398
402.	Hardness	CTR	Dwg. 9348398/501
403.	Protective Finish	CTR	Dwg. 9348398

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16 REVISION	A				10. QAP NO: 9348398
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AND DATE					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. **501. Salt Spray Test.** Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
- 502. Phosphate Coating Salt Spray Test.** Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ^{oil} treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
- 503. Phosphate Coating Weight Test.** Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
- 504. Supplement Coating Salt Spray Test.** Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

- ~~1. **Inspection Equipment.** The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.~~
- ~~2. **Equipment Utilization.** Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.~~
- ~~3. **Inspection Standards.** Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.~~

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18 REVISION	A				10. QAP NO: 9348398
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AND DATE					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.
- a. Contract number or purchase order number.
 - b. Drawing number with revision letter and date of revision.
 - c. Nomenclature of item inspected (drawing title).
 - d. Number of pieces inspected.
 - e. Individual characteristics inspected.
 - f. Conformance/nonconformance criteria.
 - g. Description and quality of defects found.
 - h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
 - i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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					FSCM:	CAGE CODE: 19200
18 REVISION	A					10. QAP NO: 9348398
SYMBOL						14. PAGE NO.: 6
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	OMB No. 0704 - 0188
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.			2. PROCURING ACTIVITY NO.
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			L1Q2004
4. ORIGINATOR		5. CAGE CODE	6. NOR NO.
a. TYPED NAME (First, Middle Initial, Last)	b. ADDRESS (Street, City, State, Zip Code)	7. CAGE CODE	8. DOCUMENT NO.
Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	19200	SQ 9348404
9. TITLE OF DOCUMENT	10. REVISION LETTER		11. ECP NO.
DIN, SPRING	a. CURRENT	b. NEW	L1Q2004
	-	A	
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES			Sheet 1 of 1
M249 Machine Gun			
13. DESCRIPTION OF REVISION			
UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture.		
	(2.) Revised document must be received before manufacture may incorporate this change.		
	(3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT		c. TYPED NAME (First, Middle Initial, Last)	
TACOM-ARDEC, AMSTA-AR-CCL-F			
d. TITLE	e. SIGNATURE	f. DATE SIGNED	
Ronald E. Elbe Chief, CCAC Prod & Field Spt Team		200/0620	
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)	f. DATE SIGNED	

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 9348404 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

9348404 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																			
5. DATE																			
4. RELEASE NUMBER																			
5. DATE																			
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A												
	7. SHEET	1	2	3	4	5	6												
	6. REVISION																		
	7. SHEET																		

8. QAP FOR: <p style="text-align: center;">Pin, Spring: M249 M.G.</p>										FSCM:			CAGE CODE: <p style="text-align: center;">19200</p>		
9. SUBMITTED BY:										10. QAP NO: <p style="text-align: center;">9348404</p>					
11. DATE: <p style="text-align: center;">921215</p>		12. APPROVED:				13. RELEASE NO.: <p style="text-align: center;">G1S2002R1</p>			14. PAGE NO.:		15. NO. OF PAGES:				

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 24.415.

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AND DATE						2

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A					10. QAP NO: 9348404
SYMBOL						14. PAGE NO.: 3
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (2.85)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 9348404
402.	Hardness	CTR	Dwg. 9348404/501
403.	Protective Finish	CTR	Dwg. 9348404

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16 REVISION	A				10. QAP NO: 9348404	
SYMBOL					14. PAGE NO.: 4	
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ~~oil~~ treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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16 REVISION	A					10. QAP NO: 9348404
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AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.
- a. Contract number or purchase order number.
 - b. Drawing number with revision letter and date of revision.
 - c. Nomenclature of item inspected (drawing title).
 - d. Number of pieces inspected.
 - e. Individual characteristics inspected.
 - f. Conformance/nonconformance criteria.
 - g. Description and quality of defects found.
 - h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
 - i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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16 REVISION	A					10. QAP NO: 9348404
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AND DATE						6

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved OMB No. 0704 - 0188
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	
<small>Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small> PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. LIQ2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO. 12
a. TYPED NAME (First, Middle Initial, Last) Sergio E. Galecki	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	8. DOCUMENT NO. SQ12556753
9. TITLE OF DOCUMENT PIN, BUFFER, SPACER	10. REVISION LETTER		11. ECP NO. LIQ2004
	a. CURRENT -	b. NEW A	
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			Sheet 1 of 1
13. DESCRIPTION OF REVISION UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	<input type="checkbox"/> (1.) Existing document supplemented by this NOR may be used in manufacture. <input type="checkbox"/> (2.) Revised document must be received before manufacture may incorporate this change. <input type="checkbox"/> (3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT TACOM-ARDEC, AMSTA-AR-CCL-F		c. TYPED NAME (First, Middle Initial, Last)	
d. TITLE Ronald E. Ette Chief, CCAC Prod & Field Spt Team	e. SIGNATURE 		f. DATE SIGNED 20010620
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)		f. DATE SIGNED

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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16 REVISION	A					10. QAP NO: 12556953
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AND DATE						2

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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16 REVISION	A				10. QAP NO: 12556953	
SYMBOL					14. PAGE NO.: 3	
AND DATE						

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Length (7.20)		II	SMTE
202.	Thickness (0.5)		II	SMTE
203.	Diameter (2.85)		II	SMTE
204.	Protective finish		II	Visual
205.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 12556963
402.	Hardness	CTR	Dwg. 12556963/501
403.	Protective Finish	CTR	Dwg. 12556963

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16 REVISION	A				10. QAP NO: 12556953
SYMBOL					14. PAGE NO.: 4
AND DATE					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ^Q treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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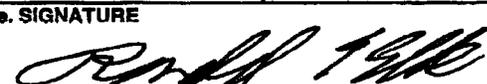
					FSCM:	CAGE CODE: 19200
16 REVISION	A					10. QAP NO: 12558953
SYMBOL						14. PAGE NO.:
AND DATE						5

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.
- a. Contract number or purchase order number.
 - b. Drawing number with revision letter and date of revision.
 - c. Nomenclature of item inspected (drawing title).
 - d. Number of pieces inspected.
 - e. Individual characteristics inspected.
 - f. Conformance/nonconformance criteria.
 - g. Description and quality of defects found.
 - h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
 - i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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16 REVISION	A					10. QAP NO: 12556953
SYMBOL						14. PAGE NO.: 6
AND DATE						

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved OMB No. 0704 - 0188
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	
<small>Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small> PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. L1Q2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO.
a. TYPED NAME (First, Middle Initial, Last)	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	8. DOCUMENT NO. SQ12556796
Sergio E. Galecki			9. ECP NO. L1Q2004
9. TITLE OF DOCUMENT PIN - SPRING		10. REVISION LETTER	
		a. CURRENT	b. NEW
		-	A
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES M249 Machine Gun			Sheet 1 of 1
13. DESCRIPTION OF REVISION			
UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture. (2.) Revised document must be received before manufacture may incorporate this change. (3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT		c. TYPED NAME (First, Middle Initial, Last)	
TACOM-ARDEC, AMSTA-AR-CCL-F			
d. TITLE	e. SIGNATURE	f. DATE SIGNED	
Ronald E. Elbe Chief, CCAC Prod & Field Spt Team		20010620	
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)	f. DATE SIGNED	

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 12556996 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

12556996 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
 MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
 DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
 ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																	
5. DATE																	
4. RELEASE NUMBER																	
5. DATE																	
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A										
	7. SHEET	1	2	3	4	5	6										
	6. REVISION																
	7. SHEET																

8. QAP FOR: <p style="text-align: center;">Pin, Spring: M249 M.G.</p>										FSCM:			CAGE CODE: <p style="text-align: center;">19200</p>			
9. SUBMITTED BY:										10. QAP NO: <p style="text-align: center;">12556996</p>						
11. DATE: <p style="text-align: center;">921215</p>		12. APPROVED:				13. RELEASE NO.: <p style="text-align: center;">G1S2002R1</p>			14. PAGE NO.: <p style="text-align: center;">1</p>		15. NO. OF PAGES: <p style="text-align: center;">6</p>					

QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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16 REVISION	A					10. QAP NO: 12556996
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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18 REVISION	A					10. QAP NO: 12556996
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (3.4)		II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg. 12556996
402.	Hardness	CTR	Dwg 12556996/501
403.	Protective Finish	CTR	Dwg 12556996

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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ~~oil~~ treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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16 REVISION	A					
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

- 3.
4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.
- a. Contract number or purchase order number.
 - b. Drawing number with revision letter and date of revision.
 - c. Nomenclature of item inspected (drawing title).
 - d. Number of pieces inspected.
 - e. Individual characteristics inspected.
 - f. Conformance/nonconformance criteria.
 - g. Description and quality of defects found.
 - h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
 - i. Date of inspection.
 - (1) Sampling Plan
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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16 REVISION	A					10. QAP NO: 12556996
SYMBOL						14. PAGE NO.:
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NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved OMB No. 0704 - 0188
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.		010430	
<small>Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small> PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT / PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.			2. PROCURING ACTIVITY NO. LIQ2004
			3. DODAAC
4. ORIGINATOR	b. ADDRESS (Street, City, State, Zip Code)	5. CAGE CODE	6. NOR NO.
a. TYPED NAME (First, Middle Initial, Last)	ARDEC-TACOM AMSTA-AR-QAC-C BLDG. 65 N PICATINNY ARSENAL, NJ 07806-5000	7. CAGE CODE 19200	8. DOCUMENT NO. SQ 12557012
Sergio E. Galecki			
9. TITLE OF DOCUMENT	10. REVISION LETTER		11. ECP NO.
PIN, SPRING	a. CURRENT	b. NEW	LIQ2004
	-	A	
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES			Sheet 1 of 1
M249 Machine Gun			
13. DESCRIPTION OF REVISION			
UPDATE QAP TO LATEST FORMAT AND TO INCORPORATE THE LATEST SPECIFICATION CALLOUTS.			
14. THIS SECTION FOR GOVERNMENT USE ONLY			
a. (X one)	(1.) Existing document supplemented by this NOR may be used in manufacture. (2.) Revised document must be received before manufacture may incorporate this change. (3.) Custodian of master document shall make above revision and furnish revised document.		
b. AUTHORITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT	c. TYPED NAME (First, Middle Initial, Last)		
TACOM-ARDEC, AMSTA-AR-QAC-F			
d. TITLE	e. SIGNATURE	f. DATE SIGNED	
Ronald E. Elbe Chief, CCAC Prod & Field Spt Team		20010620	
15a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)	f. DATE SIGNED	

QUALITY ASSURANCE PROVISIONS (QAP)

1. COMMAND AGENCY:

U.S. ARMY ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PICATINNY ARSENAL, NJ 07806-5000

2. THESE QAP'S FORM PART OF DRAWING / SPECIFICATION 12557012 AS SPECIFIED IN THE CONTRACT.
INSPECTION SHALL BE CONDUCTED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH REFERENCED DOCUMENTS.

3. **PART I. LIST OF APPLICABLE DOCUMENTS**

DRAWINGS

12557012 Pin, Spring

STANDARDS

MIL-STD-1916 DOD Preferred Methods for Acceptance of Product

SPECIFICATIONS

MIL-PRF-3150 Lubricating Oil, Preservative, Medium
MIL-PRF-16173 Corrosion Preventative Compound, Solvent Cut Back, Cold Application
DOD-P-16232 Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)

NON GOVERNMENT PUBLICATIONS

ASTM E 18 Standard Methods of test for Rockwell Hardness and Rockwell Superficial Hardness of Material
ASTM B 117 Method of Salt Spray (Fog) Testing

(Application for copies of ASTM documents should be addressed to American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959)

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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REVISIONS

4. RELEASE NUMBER																				
5. DATE																				
4. RELEASE NUMBER																				
5. DATE																				
REVISION STATUS OF SHEETS	6. REVISION	A	A	A	A	A	A													
	7. SHEET	1	2	3	4	5	6													
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	7. SHEET																			
8. QAP FOR:										FSCM:					CAGE CODE:					
Pin, Spring: M249 M.G.															19200					
9. SUBMITTED BY:										10. QAP NO:										
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11. DATE:		12. APPROVED:				13. RELEASE NO.:			14. PAGE NO.:			15. NO. OF PAGES:								
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART II. CONFORMANCE PROVISIONS

1. General Provisions.

1.1 Classification of characteristics. There are two classes of characteristics covered in this QAP. The two classes are: major characteristics and minor characteristics, as defined in MIL-STD-1916.

1.2 Workmanship. The quality of workmanship shall not adversely affect safety, function, performance, serviceability, interchangeability and appearance. Completed parts and assemblies shall not exhibit defective material or processing such as: seams, laps, laminations, cracks, fins, extraneous material, visible steps or irregularities, sharp edges, nicks, scratches, burrs, tool scores and gouges, deformations, missing operations, improper assembly, missing parts, stains, corrosion, non-specified oxidation (rust), unauthorized salvaging operations (e.g., hammering to shape, repair by welding, straightening, bending, etc.).

1.3 Certification provisions.

1.3.1 Certified test reports (CTR). When specified in the contract or documents referenced herein, the contractor shall make available to the Government a CTR for each lot of parts, assemblies, subsystems and systems by lot number prior to acceptance. This test report is in addition to, and not in lieu of, any rights of the Government under this contract or law. A CTR may be used as an element incident to, but shall not be used as the sole basis for Government acceptance of the contract item(s) unless so indicated in the technical documentation or contract. As a minimum, the report shall contain the following:

- a. Name of company and date.
- b. Contract number or purchase order number, national stock number and drawing number.
- c. Complete nomenclature of supplies together with lot number or other identification. The quantity in each lot or shipment shall be given.
- d. All inspections and tests required by contract (i.e., material, processes, performance, functional, etc.) shall be recorded in test reports. These reports shall identify each lot submitted for acceptance by lot number, the specification or drawing, revision and date, grade or type as applicable, number of specimens tested, specified characteristics and requirements, and actual results obtained.
- e. Reports of raw material producer's chemical, mechanical, and physical analyses.
- f. A statement as follows, certifying that material meets all requirements of the contract:

"The undersigned, individually, and as the authorized representative of the contractor, warrants and represents that: All the information supplied above is true and accurate; the material covered by this certificate conforms to all contract requirements (including but not limited to the drawings and specifications); the inspection test results, and the analyses appearing herein are true and accurate; and this certificate is made for the purpose of inducing payment and with knowledge that the information and certification may be used as a basis for payment."

g. Signature and title of certifying official.

1.3.2 Certificate of Conformance (COC). When COC(s) are to be provided, the COC(s) shall be drawn up to meet the requirements of the Federal Acquisition Regulations (FAR) 52.246-15.

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16 REVISION	A					10. QAP NO: 12557012
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.

2. First Article.

2.1 Submission. Unless otherwise specified, a first article sample consisting of the sample items in quantities as specified herein shall be submitted for inspection and approval in accordance with the terms of this contract. The sample items will be subjected to any or all of the conformance inspections listed in Part III of this QAP and may be inspected for compliance with any or all of the requirements of the applicable drawing(s) and specification(s). The certification requirements of Part IV apply.

2.2 Rejection. If any sample item fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure to comply with any of the requirements.

3. Verification. Verification inspection shall consist of inspection of all conformance characteristics contained in Part III, Inspection Requirements, and Part IV, Certification Provisions, of this QAP. Failure to comply with the conformance criteria specified shall be cause for rejection of the lot or quantity represented. All other quality characteristics not specifically listed herein are subject to control under the contractor's quality program or inspection system.

3.1 Lot formation. Inspection lots shall comply with the lotting requirements of MIL-STD-1916, paragraph 4.2.

3.2 Attributes sampling inspection. The provisions/procedures of MIL-STD-1916 are applicable to this QAP. Unless otherwise specified, attributes sampling for the conformance characteristics listed in Part III herein shall be in accordance with MIL-STD-1916, Table II, using the verification level cited in the conformance criteria columns of Part III. The procedure in MIL-STD-1916 for normal inspection shall be used at the start of production for current or previous suppliers of the item. For all new suppliers of the item, tightened inspection shall be used at the start of production and be continued until the criteria for normal inspection are met.

3.3 Alternative verification provisions. Unless otherwise specified, alternative verification provisions, such as statistical process control (preferred), variables or continuous sampling plans, may be used by the contractor in lieu of the inspection provisions contained herein when such alternative(s) provide an equivalent or better level of quality, and provided they have been described in a written proposal which has been approved by the Government.

3.4 Inspection equipment. Unless otherwise specified herein or the contract, all inspection equipment required to perform the examinations and tests in this QAP shall be designed, documented and maintained by the contractor, including any fixtures necessary to accommodate the test procedures. Inspection equipment shall incorporate the appropriate measurement capability, precision and accuracy to assure rejection of all nonconforming product.

3.5 Components and Assemblies. All components shall conform to the drawings for those components prior to installation into an assembly.

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18 REVISION	A				10. QAP NO: 12557012	
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. PART III INSPECTION REQUIREMENTS

1. Classification of Conformance Characteristics.

<u>CLASS</u>	<u>CHARACTERISTICS</u>	<u>ZONE</u>	<u>CONFORMANCE CRITERIA</u>	<u>INSPECTION METHOD</u>
<u>CRITICAL:</u>	None			
<u>MAJOR:</u>				
101.	Rockwell Hardness			SMTE/501
102.	Salt Spray			502
103.	Coating Weight			503
104.	Supplement oil			504
<u>MINOR:</u>				
201.	Diameter (3.4)	B-2	II	SMTE
202.	Protective finish		II	Visual
203.	Workmanship		II	Visual

PART IV. CERTIFICATION REQUIREMENTS

The certification provisions of para. 1.3 for Certified Test Reports (CTRs) and Certification of Conformance (COCs) shall apply. CTRs and COCs are required for the following:

<u>NUMBER</u>	<u>CHARACTERISTIC</u>	<u>CERTIFICATION METHOD</u>	<u>TEST DATA TO COMPLY WITH</u>
401.	Material	CTR	Dwg.12557012
402.	Hardness	CTR	Dwg 12557012/501
403.	Protective Finish	CTR	Dwg 12557012

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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3. 501. Salt Spray Test. Five (5) parts shall be selected from each lot. The test shall be performed as specified in DOD-P-16232 and ASTM B 117 without the supplemental oil. Test procedures and equipment shall have the prior approval of the Government. If any part shows evidence of corrosion, it shall be classified as defective and the entire lot shall be rejected.
502. Phosphate Coating Salt Spray Test. Four (4) items selected randomly from each lot shall be tested. Phosphated parts shall be checked prior to supplemental ⁶¹¹ treatment IAW DOD-P-16232 using a 5% salt solution IAW ASTM B 117. The duration of the test shall be as specified in DOD-P-16232. Should any item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
503. Phosphate Coating Weight Test. Two (2) test specimens distributed randomly and processed concurrently with the items, or two (2) items selected at random from each lot shall be tested. The test specimens shall be the requirements of DOD-P-16232. Conduct this test as specified in DOD-P-16232. Should any specimen or item fail to meet the applicable requirement, the quantity represented by the sample shall be rejected.
504. Supplement Coating Salt Spray Test. Perform this test at the time of first article and at least semimonthly during production. Three test panels for first article and three test panels per processing tank or dispenser used during production shall be prepared and tested. This test of the supplemental coating on unphosphated steel shall be conducted IAW MIL-PRF-3150 or MIL-PRF-16173, as applicable, and ASTM-B-117 using a 5% salt solution. The duration of the test shall be as described in the applicable specification. If any test panel fails to meet the salt spray requirement of MIL-PRF-3150 or MIL-PRF-16173, as applicable, the first article or production quantity processed since the last acceptable test shall be rejected.

PART VI. NOTES

1. Inspection Equipment. The contractor is required to furnish all equipment to perform inspections and tests stipulated herein and any others required for acceptance. Designs of special test equipment (STE) or equipment designed by the contractor, to be used for major and critical characteristics, shall be submitted to the Government technical agency for approval prior to use. When the contractor choose to use standard measuring test equipment (SMTE) for major and critical characteristics in lieu of a gage called out in the QAP, description of the setup, procedure, and sample calculations shall be submitted to the Government technical agency prior to use. The local Government quality assurance representative (QAR) shall approve equipment and procedures used for minor characteristics.
2. Equipment Utilization. Use of the contractor's or Government furnished inspection equipment, when desired by the Government representative shall be permitted without charge. Government furnished acceptance inspection equipment shall not be used by the contractor in lieu of contractor work gages and equipment.
3. Inspection Standards. Inspection standards shall be utilized for those characteristics requiring inspection decisions by visual means. Items selected as visual comparison standards shall be mutually agreed to by the contractor and the Government, within drawing and specification requirements, and shall be used to assist in determining configuration and minimum acceptance criteria. The visual comparison standards selected shall be subject to approval by the responsible Government technical agency. Each comparison or inspection standard shall be kept under the control of the contractor's inspection element and be positively identified as to the characteristic or condition the standard represents, date established as the standard, number of the standard, and identity of the contractor and the Government inspection personnel establishing the standard.

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18 REVISION	A				10. QAP NO: 12557012
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QUALITY ASSURANCE PROVISIONS (QAP) - (CONTINUATION SHEET)

3.
 4. Inspection Records. The contractor's records of inspection shall be accurate, complete, and be made available to the Government upon request. The contractor's records of inspection shall provide, as a minimum, the following information.

- a. Contract number or purchase order number.
- b. Drawing number with revision letter and date of revision.
- c. Nomenclature of item inspected (drawing title).
- d. Number of pieces inspected.
- e. Individual characteristics inspected.
- f. Conformance/nonconformance criteria.
- g. Description and quality of defects found.
- h. Results of inspection (e.g. identification of conforming and nonconforming product). Actual inspection and tests results shall be recorded when actual measurements and tests were the basis for conformance/nonconformance decisions.
- i. Date of inspection.
 - (1) Sampling Plan.
 - (2) Verification levels (VL) used.
 - (3) Lot size and lot number.
 - (4) Sample Size.

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16 REVISION	A				10. QAP NO: 12557012	
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DEPARTMENT OF THE ARMY
 UNITED STATES ARMY TANK - AUTOMOTIVE AND ARMAMENTS COMMAND
 1 ROCK ISLAND ARSENAL
 ROCK ISLAND, ILLINOIS 61299-7630
 27 Jun 2001

Rcvd 3 Jul 01

REPLY TO
 ATTENTION OF
 Crew Served Weapons Contracting Team

SUBJECT: Contract DAAE20-96-C-0326 and DAAE20-00-D-0101, M249 SAW

Mr. Joe Taylor
 FN Manufacturing Inc.
 797 Clemson Road
 Columbia, South Carolina 29229

Dear Mr. Taylor:

Enclosed is approved Engineering Change Proposal (ECP) L1Q2004 which is proposed for incorporation into referenced contract in accordance with FAR 52.243-1, Changes Clause.

If you can incorporate this change at no cost to the government and no change to the delivery schedule, please have an authorized representative sign the acknowledgment below. This letter becomes your authorization to proceed with the ECP.

Your authorized representative's signature signifies your agreement to the change and your willingness to incorporate them at no cost to the government and no change to the delivery schedule. These changes are effective on the date you sign the acknowledgment.

ACKNOWLEDGMENT

SIGNATURE

Jeff Rankin

DATE

7-13-01

Typed Name Jeff Rankin

Title Director, Contracts

If you cannot incorporate this ECP at no cost to the government and no change to the delivery schedule, please notify the point of contact by 13 Jul 2001 and provide a firm cost proposal/delivery schedule. If you plan to submit a cost proposal do not incorporate this ECP until the contracting officer authorizes you to do so.

The point of contact is Teresa Stottlemire, AMSTA-LC-CSCA, (309) 782-4626, data fax (309) 782-3813, electronic mail stottlemiret@ria.army.mil.

Sincerely,

Daniel L. Thorpe

Daniel L. Thorpe
 Contracting Officer

Enclosure

Copy Furnished:
 DCMC Atlanta, Attn: Karen Benner
 DCMC Atlanta, Terry Smith c/o FNMI