

Scope of Work (SOW)
for
Operation of PPA-QC by
Third Party Inspection Agency
for
MRSAM (IAF) Productionisation

Page 1 of 14

INDEX

| | | |
|----|---|----|
| 1 | INTRODUCTION | 3 |
| 2 | PPA-QC FUNCTIONING | 4 |
| 3 | FIRM REGISTRATION | 5 |
| 4 | DESIRED CERTIFICATIONS | 5 |
| 5 | FINANCIAL CAPABILITY | 6 |
| 6 | PROCESS FLOW, PLANNING AND INSPECTION | 6 |
| 7 | QC ROLE AT VARIOUS STAGES | 7 |
| 8 | MAINTAINACE OF QC/QA RECORDS | 7 |
| 9 | MANPOWER TO BE EMPLOYED | 8 |
| 10 | OTHER POINTS | 10 |
| 11 | VALIDITY OF TENDER ENQUIRY AND CONTRACT | 11 |
| 12 | SECURITY INSTRUCTIONS | 11 |
| 13 | SAFETY OF PERSONALS EMPLOYED | 12 |
| 14 | SECRECY & PATENT RIGHTS | 12 |
| 15 | ARBITRATIONS / SETTLEMENT OF DISPUTES | 12 |
| 16 | OWNERSHIP | 13 |
| 17 | PENALTY | 13 |
| 18 | TERMINATION OF CONTRACT | 13 |
| 19 | FORCE MAJEURE CLAUSE | 13 |
| 20 | INDEMNITY | 13 |
| 21 | PUBLICITY | 14 |
| 22 | PRE-BID MEETING | 14 |

Operation of PPA-QC by Third Party Inspection Agency for MRSAM (IAF) Productionisation

1 INTRODUCTION

The Project MRSAM is the Prime Production Agency responsible for Quality Control (PPA-QC) which includes coordination with various design agency, external QA agency and production partners. The production activity is spread all over India for which the Project shall participate and monitor the production activities.

The QC activity for all systems/ sub-systems of Project MRSAM (IAF) is intended to be carried out through Third Party Inspection Agency as per approved and latest released ATP, QAP, BoM, specification and drawings. The QC activity of production systems / sub-systems need to be carried out at manufacturer's / vendor's locations across PAN India. The majority of systems / sub-systems manufacturers are at Pune, Bengaluru, Hyderabad, Coimbatore & N.Delhi respectively.

In order to monitor, inspect and provide QC coverage for the system / sub-system at various manufacturer's premises, it is required to form Teams / Cells at three (3) major locations i.e. at Hyderabad, Pune & Bengaluru. All three (3) Cells shall be established by the Third Party Inspection Agency at these major locations and the team members shall operate through these Cells.

The **Core Team (CT)** at Hyderabad, "**Hyderabad Cell**" shall monitor the complete product realization activities of MRSAM (IAF) in coordination with above Cells and report to Head PPA-QC, Project MRSAM (IAF), Hyderabad. In addition to above, the CT shall also be involved in inspection of the systems offered by OEMs of located around Hyderabad.

The entire PPA-QC activity shall be carried out under the supervision and instruction of Project Director, MRSAM (IAF), RCI, Hyderabad. The Project MRSAM (IAF), RCI shall award the contract for inspection and QC activity of complete MRSAM (IAF) Weapon System Elements(WSE) to a suitable PAN India "Third Party Inspection Agency" hereinafter referred to as the '**CONTRACTOR**' and enter into a single contract/agreement for inspection and QC coverage at the manufacturer's locations across India.

2 PPA-QC FUNCTIONING

The CONTRACTOR shall be responsible mainly for the following activities

- Raw Material inspection
- Inspection of Bought-out Items
- Verification of valid calibration of machinery and measuring and test equipments
- In Process inspection
- Review of Quality Audit Reports (QAR)
- Qualification / Acceptance Test of sub-systems
- Final Inspection
- Factory Acceptance Test (FAT)
- Tools and Spares inspections
- Clearance for dispatch
- Obsolescence Management
- Inspection of QT for upgraded units
- Documentation of the above activities
- Maintenance of Records at Project Office
- Administration
- Production Management

The Project may depute Project representative or DRDO personnel from any other Lab to provide QC coverage at any of the manufacturer's location, however the local Cell / team shall report the activities performed by the Project or its nominated member to CT.

- 2.1 Project MRSAM (IAF) shall indicate the exact location of all the three (3) QC Cells for operation of office, staff and maintenance of records. Establishment of PPA-QC Cells is the CONTRACTOR responsibility.
- 2.2 All the necessary technical inputs, processes, technical documentation shall be provided by Project. Necessary support for testing activity will be provided exclusively by sub-system / system manufacturer.
- 2.3 The manpower engaged for this activity shall be the employees of the CONTRACTOR.

- 2.4 The CONTRACTOR should engage qualified personnel for monitoring, inspection and giving QC coverage for quality & reliability of the produced system / sub-system at manufacturer's locations and capable of multi- tasking and of taking responsibility of the complete activity. The CONTRACTOR shall engage qualified personnel and provide logistic support for inspection & QC activities.
- 2.5 The contractor's personnel shall review the QARs, inspect the respective sub-system / system as per approved QAP, ATP, technical specifications, BoM, drawings etc and record / document all the activities carried out.
- 2.6 Working hours are generally 8.5 hours including half an hour lunch break from Monday to Saturday with a weekly off on Sunday. All the other holidays shall be observed as per the Rules. Personnel need to attend the activities beyond the working hours and even if it is required on Sundays or public holidays such that the inspection activity is not affected under any circumstances.

3 FIRM REGISTRATION

- 3.1 The CONTRACTOR should be registered with the concerned Govt. Authorities under the Companies Act, 1956 or any other equivalent statutory bodies. The CONTRACTOR should provide an undertaking that they will comply with all relevant statutory requirements, concerning the supply of manpower.

4 REQUIRED CERTIFICATIONS

- 4.1 Keeping in view the requirement of production QC it is envisaged that the contractor shall ensure the below mentioned certifications to ensure the best in quality support and to produce the valid certifications for verification of RCI.
- Recognised/Registered as TPIA services with any of the DRDO Labs/ Programme/ Projects. - Mandatory
 - NABCB certification for National and International accreditation for testing, inspection, Technical and Quality Audits. – Mandatory
 - ISO certified vendor for QMS. - Mandatory
 - Approved as Competent inspector by PESO.
 - Must have experience of discharge of the same nature of duties in defence production.

5 FINANCIAL CAPABILITY

- 5.1 The CONTRACTOR shall ensure that the inspection activities are never affected either due to lack of man-power or due to requirement of funds during the contract period i.e. the CONTRACTOR should have a sound financial background to pay the salaries, OTA & other emoluments by 5th of every month.
- 5.2 The duty and responsibility of the CONTRACTOR to pay salary and any other allowances every month in time and remit statutory dues (Medical / Accidental Insurance, EPF etc and applicable statutory levies as per labour law) to the authorities concerned in respect of the manpower deployed.
- 5.3 Keeping in view this complete Scope of Work, the CONTRACTOR has to quote a price for a total period of Three Years Six Months (3yrs 6M). The break-up price shall be given as per the price bid format. The price shall be negotiated and finalized for the above mentioned period.
- 5.4 The award of contract primarily for one year only. It may be renewed upon project requirement upon year on year basis.
- 5.5 The CONTRACTOR shall submit bills on Quarterly basis for reimbursement. The payment will be made to the CONTRACTOR on pro rata basis on submission of proof of monthly remittance to its employees for that Quarter.

6 PROCESS FLOW, PLANNING AND INSPECTION

- 6.1 The CT shall prepare sub-system / system-wise annual production plan and road maps for inspection in the form of approved documents to Bengaluru Cell and Pune Cell for compliance. A copy of the same to be forwarded to external QA / QC agency for planning and co-ordination activity well in advance.
- 6.2 The CT shall ensure the record of the above, maintain the status reports along with all associated correspondence, and traceability of documentation for all systems / sub-systems of all MRSAM (IAF) WSE.
- 6.3 The CT shall maintain all records of rejection / concession etc are documented properly and the same shall also be ensured by CT for review and audit at system manufacturer's location across Pan India.
- 6.4 Any non-conformance (NCR), obsolescence, technical snags, etc should be reported by CT to the Project for immediate closure by respective System Managers of Project MRSAM (IAF).

- 6.5 The CT shall coordinate with other Cells to ensure availability of Latest / Revised / Production certified documents at Manufacturer's location and ensure that the old versions / revisions are withdrawn at the shop floor level to avoid confusion and degradation of Quality.
- 6.6 The CONTRACTOR shall conduct two-stage inspection of the manufactured item in the manufacturer's location. The first stage inspection shall be done by the firm Internal QC and CONTRACTOR jointly. Subsequently, the second stage inspection/auditing will be done jointly in presence of external QA / QC agency (MSQAA or their nominated agency).
- 6.7 The CONTRACTOR shall ensure that growing QAR is maintained including stage QC clearance certificate by firm QC and stage QA clearance by PPA-QC / MSQAA as per approved QAP documents

7 QC ROLE AT VARIOUS STAGES

- 7.1 The CONTRACTOR shall ensure the proper inspection or review starting from First Article Inspection, Raw-material identification, fabrication, In-process activities to Final Acceptance Testing, pre Dispatch inspection of systems and spares for all sub-systems and systems.
- 7.2 QAR documents to be followed in this regard, during inspecting/clearing a particular System / Sub-system.

8 MAINTAINANCE OF QC/QA RECORDS

The Quality Assurance documentation that shall be used for the MRSAM Program exists as part of the general Contractor's Quality System documentation, detailed hereunder:

- Product Assurance Procedures,
- Workmanship Standards,
- Process Specifications,
- Technological Test Manuals and
- Standard Incoming Procedures.

Records are considered as objective evidence of Quality Status.

- 8.1 The CONTRACTOR shall prepare QA Daily Inspection Report (DQIR) and ensure that the records of all activities are properly maintained. The records shall be periodically audited by Project.

8.2 The CONTRACTOR shall prepare followings communications with PPA-QC / MSQAA for smooth functioning and implementation of standard Quality Management System:

- All call letters along with AT conduct note as per approved format for inspection / testing / witness / review / clearance etc.
- All communication on FRACAS, deviation /concession / waiver salvage board etc, Audits and its enclosure (Quality Audit & Process Audit).
- All communication on issue of QA clearance certificates / I-Notes etc.
- All communication on approval of all the Inspectors working under PPA-QC at all the three cells.

9 MANPOWER TO BE EMPLOYED

| Following are the type of personnel to be employed by the CONTRACTOR./ Qualification and Experience | | Engineering graduate with min. 10 years of experience in QA/QC | Engineering graduate with min. 7 years of experience in QA/QC | Engineering graduate with min. 3 years of experience in QA/QC |
|---|-----------------|--|---|---|
| Designation | | Manager | Senior Engineer | Engineer (QC) |
| Responsibility | | PPA-QC | Team Leader | ME / EEE / ECE |
| Hyderabad Cell | Hyd. | 1 | 1 | 06 |
| | Coimbatore | | | |
| Bengaluru Cell | B'luru | | 1 | 03 |
| | Hosur / Chennai | | | |
| Pune Cell | Pune | | 1 | 07 |
| | Ghaziabad | | | |
| | Delhi | | | |
| Personnel | | 1 | 3 | 16 |
| Total number of Personnel* = 20 | | | | |

* The number of personnel against location is indicative ONLY, Project will avail the manpower upon requirement on not exceeding maximum limit of 20 Nos. Payment will be made ONLY for the actual No. of manpower deployed.

Duties & Responsibilities of QC personnel

- Develop and determine all standards to perform inspection and tests on all procedures and oversee all testing methods and maintain high standards of quality for all processes.
- Develop method statement for the inspection activity including risk assessment, Inspection Test Plan and Checklist based on requirements of the Project.
- Assist the employees to ensure knowledge of all quality standards and ensures compliance to QAPs & ATPs and collaborate with manufacturers to maintain quality of all systems.
- Carry out inspection and checking for all quality related procedures at manufacture's location and ensures activity are as per approved QAPs.
- Review quality of all materials at vendor's site and ensures compliance to sub-system / system specifications and quality.
- Documenting inspection results by completing reports and logs, summarizing and entry of data into quality database.
- Supervise effective implementation of all test and inspection schedule and ensure adherence to all procedures and coordinate with various teams to perform quality audits on processes.
- Carry out Internal Audit at the manufacturer's location as scheduled in the Project Quality Plan, PQP.
- Report to PPA-QC, control, monitor all activities related to Quality Management System, QMS and participate with Project Team in the standard application of quality system processes while serving as impartial observers in matters of testing, evaluating, and recommending corrective action and new initiatives.
- Taking care of QA/QC documents of the assigned tasks, including certificates, calibration, test results, inspection requests, Test Anomaly Notification (TAN), Non-conformance Reports (NCR) and Site Instruction (SI) /observations, and delivered units and other QA/QC documents.
- Responsible for the quality and workmanship of every activity, thorough knowledge of all phases of engineering relating to Mechanical, Electrical, Electronics & Computer discipline interfacing the multidisciplinary operations.
- Responsible for supporting, monitoring, and upgrading the quality control plan and is responsible for ensuring the team complies with Project requirements.

- Maintaining a safe and healthy work environment by following standards and procedures.

9.1 Key Skills & Attributes of QC Personnel

- Excellent knowledge of MS office.
- Excellent written and verbal communication skills.
- Trade related certification courses such as NDT, IPC / QC certification courses.
- Good client interfacing skills and presentation skills.
- Good Analytical skills - Ability to do independent analysis and arrive at conclusions
- Knowledge of statistical tools and methods.
- Hands on experience in lean deployment.
- Strong knowledge of Quality management principles and practices.
- Provide quality work and customer satisfaction.
- Prioritizing workloads and works within strict time constraints.
- Capable of multi-tasking in a fast-paced environment and remaining calm in stressful situations.
- Ability to follow directions when given work assignments with minimal or no supervision and participate in review of project milestones and/or on completion by Seniors.

9.2 The manpower shall be ready to work as per Project requirement and shall be ready to move on temporary duty (TD) anywhere within India.

9.3 However, expenses towards Out Station Transport Allowance (OTA) to be paid as an advance to its personnel. After completion of the QC activity by the individual on tour at an out station location, the CONTRACTOR will be reimbursed upon submission of eligible bills to Project.

9.4 The CONTRACTOR shall maintain proper records of the movements of their personnel. The records shall be periodically audited by Project.

10 OTHER POINTS

10.1 The CONTRACTOR shall ensure logistics support for smooth functioning of PPAQC activities by providing required stationery for office documentation activities at all places.

10.2 The CONTRACTOR must ensure the transport facilities for its personnel, within 50kms.

- 10.3 The CONTRACTOR is responsible for all the issues like personnel security & office security, and mal-function by the man power, misbehavior etc.
- 10.4 The personnel will be stationed only in areas identified for their work and shall not at any time trespass into other areas without appropriate permission.
- 10.5 All equipment's and utilities entrusted to the contractor shall be handled with due care and caution. Any liability whatsoever in nature due to mishandling or otherwise would be borne by the contractor. It is also agreed by and between the parties that in any case, any liability arising, neither RCI / Government nor any person and or agent or representative of RCI / Government will be responsible for the same. In case, it is assessed by the Govt. committee that the damages have been caused due to mishandling or otherwise by the CONTRACTOR, the CONTRACTOR will be liable to pay the entire damages to RCI / Government and or to 3rd party.
- 10.6 In case of exigencies inside RCI (during operation on the machines, material handling etc.) first aid will be provided during the normal working hours of RCI. For emergency beyond the working hours of RCI OR for further medical treatment the CONTRACTOR shall make its own arrangement.

11 VALIDITY OF TENDER ENQUIRY AND CONTRACT

- 11.1 RCI has right to terminate the contract by giving one month notice without assigning any reason whatsoever.

12 SECURITY INSTRUCTIONS

- 12.1 The CONTRACTOR shall ensure strict compliance with the provisions of the applicable Central / State Labour Laws.
- 12.2 The CONTRACTOR shall ensure that his employees are all Indian citizens, antecedents of whom are duly verified by the Police and PVC must be obtained before offering job works.
- 12.3 The employed manpower shall obey the security guidelines of RCI / DRDO.
- 12.4 The CONTRACTOR shall provide Photo Identity Cards to all his employees and these cards to be continuously displayed in work premises.

13 SAFETY OF PERSONNEL EMPLOYED

- 13.1 The safety of all persons engaged by the CONTRACTOR shall rest entirely with the CONTRACTOR and he shall provide his employees proper personal safety equipments. General safety precautions as laid down by RCI will be strictly adhered to in all activities.
- 13.2 The CONTRACTOR shall ensure strict compliance of the provisions of Factories Act and the Workman's Compensation Act. Any liability for the persons employed will be the Contractor's responsibility.

14 SECRECY & PATENT RIGHTS

- 14.1 The CONTRACTOR and all his employees shall abide by Indian Official Secrets Act in vogue & shall provide confirmation of awareness of the above, and required to submit an Non disclosure Agreement (NDA).
- 14.2 The CONTRACTOR shall not take any document/process sheet/data of the results / floppy disks CD etc containing work details outside the designated place of work without any written consent of Project Director.
- 14.3 The CONTRACTOR and his personnel shall not divulge or disclose any details of office, operational process, technical know-how, security arrangements and administrative / organizational matters to any person not authorized. All information are to be considered as highly CONFIDENTIAL / SECRET in nature.
- 14.4 The CONTRACTOR shall not divulge any information that is made known to him or her has come across to receive such information.
- 14.5 Any violation of secrecy, detected at any time of the contract, by any of the employees of the CONTRACTOR may lead to termination of services of the employee / contract itself as deemed fit by RCI. Any violation in this regard shall attract serious action.

15 ARBITRATIONS / SETTLEMENT OF DISPUTES

In the event of any question, dispute or difference arising under this contract or interpretation of the terms of, or in connection with this contract (except as to any matters the decision of which is specially provided for in this contract) the same shall be referred to the sole arbitration of the Director, RCI or some other person appointed by him. Each of the parties hereby specifically waives his right to raise any objection if the Arbitrator so appointed is a Government

Servant. The award of the Arbitrator shall be final and binding on the parties to this contract.

16 OWNERSHIP

- 16.1 The complete ownership of the service provided by the CONTRACTOR shall be with DRDO, Govt. of India and the CONTRACTOR shall at no point of time have any claim of ownership rights including the facilities provided by Project MRSAM (IAF), RCI.
- 16.2 The manpower employed shall be employees of the CONTRACTOR and shall not claim to have been employed by RCI. RCI has no responsibility towards the contractor's employees.

17 PENALTY

- 17.1 In the event of not attending/performing the inspection call raised by RCI, the contractor/ QC Engineer a suitable penalty will be imposed by Director RCI and the same will be deducted from contractor's service charges.

18 TERMINATION OF CONTRACT

- 18.1 The Buyer shall have the right to terminate the contract in part or in full in any of following cases: the stores/services is not received is not received/rendered for per the contracted scheduled(s) and the same has not been extended by Buyer. Or the delivered for causes not attributable to Force majeure for more than 6 months after the scheduled date of delivery and the delivery period has not been extended by the Buyer, ii. The delivery store/service is delayed to causes of Force Majeure by more than 6 months provided Force Majeure clause is included in the contract and the delivery period has not been extended by the Buyer. iii. The seller is declared bankrupt or becomes insolvent. iv. the buyer has noticed that the seller has violated the provisions of as specified earlier to obtain the Contract. v. As per decision of the Arbitration Tribunal.

19 FORCE MAJEURE CLAUSE

- 19.1 Neither party shall bear responsibility for the complete or partial non-performance of any of its obligation. If the non-performance results from such Force Majeure circumstances as Flood, fire Earth Quake and other acts of God as well as War, military operations, blockade, Acts or Actions such Force Majeure circumstances beyond the parties control that have arisen after the conclusion of the present contract.
- 19.2 In such circumstances the time stipulated for the performance of an obligation

under the contract is extended correspondingly for the period of time commensurate with action or circumstances and their consequences.

19.3 The party for which it becomes impossible to meet obligations under the Contract due to Force Majeure conditions, is to notify in written form to the other party of the beginning and cessation of the above circumstances immediately, but in any case not later than 10 (Ten) days from their commencement'.

19.4 Certificate of chamber of commerce (Commerce and Industry) or other competent authority or organization of the respective country shall be considered as sufficient proof of commencement and cessation of the above circumstances.

20 INDEMNITY

CONTRACTOR shall indemnify, protect and save the RCI, DRDO against all claims, losses, costs damages, expenses, action suits and other proceeding, resulting from infringement of any patent trademarks, copyrights etc. or such other statutory infringements in respects of all services provided by him.

21 PUBLICITY

Any publicity by the CONTRACTOR in which the name of the RCI, DRDO is to be used should be done only with the explicit written permission from RCI, DRDO.

22 PRE-BID MEETING

Vendors have to attend Pre-bid meeting as per RFP.