

GUIDELINES  
ON  
OUTSOURCING OF QUALITY ASSURANCE FUNCTIONS  
OF  
DEFENCE STORES MANUFACTURED BY  
PRIVATE INDUSTRY  
TO  
THIRD PARTY INSPECTION AGENCIES

## DOCUMENT APPROVAL

The thrust of "Make In India" initiative and enhanced involvement of Indian Defence Industry towards greater self-reliance will entail increase in QA work load in the foreseeable future. In order to meet this challenge, DGQA will be increasingly involved as Quality Managers and the task of routine inspections will need to be taken up by certified and competent Third Party Inspection Agencies.

These Guidelines on registration of Third Party Inspection Agencies to perform Quality Assurance functions are prepared in consonance with the Scheme for Outsourcing of Quality Assurance Functions for Defence Stores Manufactured by Private Industries to Third Party Inspection (TPI) Agencies issued vide MoD, Notification No.01847/QA/DGQA/Tech Coord/(16 TC)/D (QA)/18 dated 30 May 2018.

This document has been formulated for effective and efficient management of Third Party Inspection Agencies available in the country. Views of all majors stake holders have been taken while formulating the Guidelines. The implementation is planned in a phased manner with adequate mechanism built in for periodic review and continuous improvement of the system.

Place : New Delhi

Date : Jun 2018

(Shamsher Singh)

Lt Gen

Director General of Quality Assurance

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III LIST OF EFFECTIVE PAGES : Revision level, date of revision of each page shall be shown on this page :-

Page No.	Revision No.	Date
1.	NIL	15.06.18
2.	NIL	15.06.18
3.	NIL	15.06.18
4.	NIL	15.06.18
5.	NIL	15.06.18
6.	NIL	15.06.18
7.	NIL	15.06.18
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9.	NIL	15.06.18
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11.	NIL	15.06.18
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13.	NIL	15.06.18
14.	NIL	15.06.18
15.	NIL	15.06.18
16.	NIL	15.06.18
17.	NIL	15.06.18
18.	NIL	15.06.18
19.	NIL	15.06.18

IV RECORD OF CHANGES : Brief Details of Changes :-

Issue	Date	Page	Brief Details of Changes	Reason for Changes
Ver - 01 ( First Issue )	15.06.2018	All	Nil	-

**DIRECTORATE GENERAL OF QUALITY ASSURANCE  
(Ministry of Defence / Department of Defence Production)**

## **GUIDELINES**

**New Delhi, the 15<sup>th</sup> Jun 2018**

**Subject: *Guidelines for Outsourcing of Quality Assurance Functions of Defence Stores Manufactured by Private Industry to Third Party Inspection (TPI) Agencies.***

**F. No. 01847/QA/DGQA/Tech Coord (16TC)**

### **1. Background and Objective.**

1.1 The Defence products for the Armed Forces are procured Ex-import and manufactured indigenously by the Ordnance Factories / PSUs as also the Private Industry. The involvement of the Indian Industry is still comparatively much lesser and essentially restricted to Components / Sub-assemblies utilised for the end products. This scenario is however now undergoing a transformation. The Defence Sector under the 'Make in India' initiative of the Government is getting the requisite impetus & support for development and manufacturing of Defence Products.

1.2 Presently, DGQA is the main Quality Assurance (QA) Organisation entrusted with the responsibility of assuring Quality & Reliability of Defence Products, both manufactured indigenously and those procured Ex-import. The enhanced involvement of Indian Industry in manufacturing defence products will entail increase in workload of DGQA Organisation, thus over-stretching the available resources.

1.3 It would therefore be imperative to outsource QA functions pertaining to items procured from the Private Industry to Third Party Inspection (TPI) Agencies. Endeavour would be to ensure best practices for Third Party Inspection services without any dilution of stringent quality requirements of Defence Products. This is envisaged to manifest into sharing of the present QA workload as also selective outsourcing of some functions / activities related to overall QA coverage. Need based outsourcing of QA workload / activities to TPI Agencies would facilitate augmenting & optimisation of QA resources.

1.4 **Objective** : The objective of these Guidelines is to lay down broad modalities of outsourcing of Third Party Inspection Agencies to perform Quality Assurance Functions pertaining to Defence Products manufactured by Private Industry within India.

## 2. **Qualitative Requirements (QRs) for Selection of TPI Agencies for QA.**

### 2.1. **Core Criteria for Selection.**

#### 2.1.1 **Mandatory Provisions.**

2.1.1.1 Agency should have been accredited by QCI for Certification / Conformity Assessment pertaining to Quality Management System (QMS) of Manufacturers (ISO 9001: 2015).

2.1.1.2 Agency should have been accredited for Certification of "Conformity Assessment- Requirements for the Operation of Various Types of Bodies Performing Inspection as per IS/ISO/IEC 17020 : 2012"

2.1.1.3 Agency should have been accredited by QCI for ZED Maturity Assessment Model, initially provisionally approved and later formally accredited by NABCB & approved by DC MSME (for MSMEs) {in cases involving Capacity Assessment & Certification Task outsourced to TPI}.

2.1.2 **Preferred Criteria / Additional Weightage.** The following will be accorded preference / additional weightage:

(a) Agencies accredited for Zero Defect Zero Effect - Defence (ZED-D) Maturity Model (as per 2.1.1.3 above).

(b) Agencies accredited to certify Environmental Management System (EMS) / ISO 14001:2015, Occupational Health & Safety Management System (OHSAS 18001: 2007) / ISO 45001etc.

2.2 **Education.** The Assessors employed by the TPI Agencies shall be either Graduates in Engineering/Diploma (three years) or Masters (in Science or Technology) qualification.

2.3 **Technical Skills.** The TPI Agency must have knowledge / expertise in the domains pertaining to various fields of Accreditation viz Inspection, QMS, EMS, ZED-D etc as per core criteria specified at 2.1 above and specific category of products.

2.4. **Work Experience.**

2.4.1 Minimum five years (eight years in case of Diploma Holders) of post qualification work experience and including under mentioned requirements.

2.4.2 At least two years of work in the relevant Industry Sector in appropriate activities  
OR

Min. 50 man-days of Consulting / Certification Auditing/ Maturity Model Assessment/ Accreditation Assessment experience in any of the relevant sectors.

2.4.3 The TPI Agency should have conducted at least two TPIs in the specific or similar category of products in the past three years.

## 2.5 Training Experience.

2.5.1 Trained in Inspection / Auditing as per ISO 17020 / ISO 17021/19011 (Inspection Standards) and ISO 9001: 2015 (QMS Standard) requirements.

2.5.2 Trained in other ISO Standards / recognized Maturity Model Assessment / Consulting / Implementing recognized National Awards eg Baldrige Award etc as per relevant criteria specified under the Scheme.

2.5.3 The Assessors/ Inspection Staff shall undergo structured training for minimum of two weeks (96 hours) in respective fields of Defence product inspection and manufacturing processes. Broadly this may include general awareness about military terminologies, safety requirements, Shelf Life policy, QMS and QC Tools, principles of measurement, general and specific measuring instruments, NDT techniques, Testing Stands/ Jigs/ Fixtures, manufacturing processes, testing of metallic & non-metallic parts etc.

2.6 **Permanent Manpower:** The Agency should have adequate trained and qualified permanent manpower for inspection on their pay roll.

## 2.7 Nationality

2.7.1 The TPI Agency shall have stable and legal establishment in India.

2.7.2 The Assessors / Staff deployed for the Inspection activities shall be Indian Nationals only.

2.8 **Record.** The TPI Agencies shall record competences of Assessors for each Discipline specific competency and Industry Sector.

2.9 **ZED Maturity Model Specific Criteria.** The TPI / Rating Agency must meet all requirements as specified in "ZED RATING Scheme: Provisional Approval System for TPI" (available on QCI Site).

### 3. Method / Procedure for Selection of TPI Agencies.

3.1 Format for Application, Procedure for selection of TPI Agencies including Nodal Agency for Processing, Scope of Tasking & category of Products will be uploaded on the DGQA website.

#### 3.2 Procedure for Selection / Registration of TPI Agencies.

##### 3.2.1 Application.

3.2.1.1 Indian Agencies interested in registration as TPI for the purpose of this Scheme may apply to DGQA in the prescribed Application Format along with the prescribed Application Fee. The applicant shall also enclose the required information and documents as specified in the Application Form.

3.2.1.2 The filled in Application Form for approval shall be duly signed by the CEO/ authorized representative(s) of the TPI Firm / Agency seeking registration.

3.2.1.3 On receipt of the Application Form, it will be scrutinized by the DGQA (designated Authority) and those found complete in all respects will be processed further.

##### 3.2.2 Office Visit.

3.2.2.1 Based on review on the Application for completeness, an Assessment Team comprising a Team Leader and Member(s) will be nominated by DGQA for the purpose of assessment at Applicant's Office and other locations, if required.

3.2.2.2 The Office Assessment may be of two days or more, as required.

3.2.2.3 The names of the members of the Assessment Team will be communicated to the applicant TPI Firm.

3.2.2.4 The Assessment Team Leader shall provide an Assessment Plan to the applicant well in advance prior to the assessment.

3.2.2.5 The date(s) of assessment shall be mutually agreed to between the applicant TPI Agency and the DGQA / Assessment Team.

3.2.2.6 DGQA may decide, based on the report of Office Assessment, to undertake witnessing On-site conduct viz assessment of complete or any part of the actual Third Party Task being performed by the applicant TPI Agency.

3.2.2.7 The Office Assessment will broadly entail the following.

3.2.2.7.1 Opening Meeting for explaining the purpose, scope and the methodology of assessment.

3.2.2.7.2 The actual assessment process shall cover the following :-

- (a) Review of the documented system of the organization to assess its adequacy in line with the assessment criteria as specified.
- (b) Verification of the implementation of the system including scrutiny of the records of personnel competence and other relevant records.
- (c) Demonstration of personnel competence through means like interviews, etc.
- (d) In short, it will be an assessment for verifying technical competence of the applicant TPI Agency for operating under the Scheme.

3.2.2.7.3 Closing Meeting will be conducted to convey the following :-

- (a) Non Conformities and concerns observed in the Applicant's system.
- (b) Assessment Team's recommendations to DGQA.

**3.2.3 Decision.** Based on the report of assessment and the action taken by the applicant on the Non Conformities / concerns, if any, DGQA / Authorised Representative shall take a decision on whether to :-

- (a) Undertake witnessing On-site conduct viz, assessment of complete or any part of the actual Third Party Task being performed by the applicant TPI Agency.

OR

- (b) Grant Approval for Registration to the Applicant as TPI Agency under the Scheme.

### **3.3 Validity of Registration / Approval.**

3.3.1 The certificate will be valid for five years.

3.3.2 DGQA / concerned Team may visit at least one Third Party Task performed by TPI Agency per year of validity.

3.3.3 The period of validity of registration may be renewed subsequently in cycles of five years based on the request of TPI Agency, self declaration and review of past performance on payment of requisite fees.

3.3.4 The approval shall be subject to suspension / withdrawal with due notice of 15 days in the event of any noncompliance to the requirements of the Scheme. Details are at Paragraphs 3.5 & 3.6.

3.3.5 The Registered TPI Agency shall inform DGQA without delay about any changes relevant to its approval, in any aspect of its status or operation relating to the following:-

- (a) Its legal, commercial, ownership or organizational status,
- (b) The organization, top management and key personnel,
- (c) Main policies, resources, premises and scope of approval, and
- (d) Other such matters that may affect the ability of the TPI Agency to fulfill requirements for approval

3.3.6 DGQA shall examine such information and decide on the issue on merit with or without an On-site Verification.

3.4 **Registration Fee.** INR 25,000

3.5 **Suspension of Registration (Partial of full)**

3.5.1 The registration will be suspended either fully or partially based on the following conditions :-

- (a) No / ineffective Corrective Action in response to the Non-Conformities observed during surveillance assessment or reassessment.
- (b) Any major change has taken place in the legal status, ownership, impartiality etc. without the information to DGQA.
- (c) Any willful mis-declaration in the Application Form.
- (d) Inability or unwillingness to ensure compliance to the applicable standards / criteria.
- (e) Excessive and or serious complaints against the inspection system of the registered Inspection Body.
- (f) Non availability of resources in some of the technical areas covered under registration.
- (g) Any other condition deemed appropriate by the Registration Committee.

3.6 **Withdrawal of Registration**

3.6.1 The registration will be withdrawn under the following conditions :-

- (a) If a Registered TPI Agency willfully relinquishes its Registration status.
- (b) If the Non-Conformities are not addressed in spite of suspension for a period more than six months.
- (c) If no action is taken by the Registered TPI Agency in response to the suspension on any other grounds.

### 3.7 Penalty Clause.

3.7.1 In case of unsatisfactory service of Inspection Agencies, Competent Authority may withhold the payment or recover the amount as per the terms and conditions of the Contract / Purchase Order.

## 4. Charter of Duties of TPI Agencies.

### 4.1 Capacity Assessment & Verification of Defence Manufacturing Firms.

4.1.1 Assessment / Rating & Certification of Firms based on ZED-D Maturity Assessment Model (specific to product under consideration).

4.1.2 Gap Analysis, Hand holding & Consulting for improving Rating of Firms (especially relevant to MSMEs in consonance with ZED-D Model).

4.1.3 Re-Assessment / Re-Rating of Firms for final Registration.

### 4.2 Product Realisation Phase.

4.2.1 **Input Material Checks.** Conduct of Document Audit or Quality Audit (sampling based) in Conformity with QAP formulated for that product by AHSP, depending on criticality of that Item/Component.

#### 4.2.2 In Process Checks.

4.2.2.1 Conduct of Process Audit during actual manufacturing of items for specific categories based on criticality of Process/ Product or on as required basis.

4.2.2.2 Surveillance & Quality Audit at specific points of manufacturing process for certain categories of items based on criticality.

4.2.2.3 Surveillance of Machines, Jigs / Fixtures etc, deployed for manufacturing & Quality Control for their serviceability, maintenance & calibration.

4.2.2.4 Review of manufacturing / assembly lines and resource flow having bearing on overall efficiency & quality. Suggest improvements and monitor implementation.

#### 4.2.3 **Product Audit / Final Acceptance Inspection (FAI).**

4.2.3.1 Product Audit of End Store including specified tests such as Radiographic Examination / Shop Floor Tests at Firm Premises / designated NABL accredited labs as per Specification/ QAP laid down by DGQA.

4.2.3.2 Conduct Static Proof at Firm Premises / designated Ranges as per QAP specified by DGQA for Armament Stores.

4.3 **Post Production Support / Defect Investigation (DI).** Associate in DI pertaining to products manufactured by the Private Industry, conduct Visual Inspection, Gauging and Tests / Checks as specified by DGQA / AHSP. Prepare & forward report for final analysis & closure by DGQA / AHSP (as per current procedure) for establishing cause and responsibility for the defect / accident and recommend further necessary action thereof.

### 5. **Selection of Inspection Agency (DGQA or TPI Agency) and Modalities of Payment.**

5.1.1 The Order Placing Agency (OPA) will decide on the option of selecting DGQA or Registered TPI Agency for providing inspection coverage.

5.1.2 Based on the inputs pertaining to the TPI Agency and Product, DGQA will prepare a Compendium of Registered TPI Agencies containing product specific tasking and intimate the same periodically (suggested to be six monthly basis) to the Order Placing Authority. The OPA will accordingly formulate the specific inspection tasking and include the same in Tender / RFP.

5.1.3 DGQA will enter into a Product Specific Rate Contract (RC) with Registered TPI Agencies for 3 Yrs, as considered appropriate for specific product inspection & tasking thereof. This will be periodically intimated to OPA to facilitate selection & tasking of TPI Agency.

5.1.4 The inspection charges will be factored into / included in the overall product cost by the Manufacturing Firm while responding to the Tender / RFP for supplying the requisite defence product.

5.1.5 In cases wherein either the Manufacturing Firm or the Product is new, the initial lot / batch will be inspected by DGQA (preferably with the TPI in attendance) followed by selected TPI Agency. This will establish the performance of Firm or Product as also create a Benchmark for Inspection by the TPI Agency.

5.1.6 There will be no dilution of the Testing Protocol, viz ATP or QAP etc., presently in vogue for a particular product.

5.1.7 Payment for inspection to the TPI Agency will be made by OPA after completion of inspection tasks & issue of I-Note by TPI Agency.

5.1.8 **GoI Orders.** Accordingly, GoI Orders will be issued by MoD / DDP.

## 6. **Authority for Registration of Eligible Agencies.**

6.1 The suggested structure for certifying the eligible Agencies based on above mentioned criteria and selection process is covered in succeeding paragraphs.

6.2 **Composition of Team.** A team will be composed as per the details given below for scrutiny of Applications and Office & On-site Assessment of TPI Agencies under consideration for Registration.

6.2.1 **Presiding Officer.** Brigadier / Equivalent Officer from concerned AHSP / Technical Directorate.

6.2.2 Team will comprise of the following Members :-

(a) Colonel / Lt Colonel / Equivalent Naval / Civilian Officers & AEs/JEs ( Single or Multi Disciplinary, as required) from DGQA.

(b) Colonel / Lt Colonel / Equivalent from the Procurement Agency / Line Directorate.

6.3 **Approving Authority.** ADGQA of the concerned / Nodal Tech Directorate (pertaining to Main Equipment / Product in case of Multi-Disciplinary items).

7. **List of Items for Outsourcing of Inspection Coverage :** List will be periodically updated and uploaded on the DGQA Website.

8. **TPI for Naval Equipment / Systems.** The conditions stipulated in the above Guidelines will be applicable Equipment / Systems procured by the Navy. However, some conditions specific to procurement by Indian Navy are given below.

8.1 Third Party Inspection ( normally by Classification Authorities ) are already being undertaken for non – critical Naval Equipment / Systems.

8.2 Outsourcing of QA Functions will be done by Naval OPAs / Shipyards in consultation with Professional / Production Directorates at IHQ MoD (N) and Naval QA Agencies of DGQA considering criticality of Equipment / Systems. Dual Inspection system may be incorporated on as required basis.

9. **Periodic Review** : The implementation of Scheme would be reviewed periodically and improvements / changes co – opted, as required.

## 10. **Conclusion**

10.1 In order to offset the enhanced workload, consequent to increased participation of Private Industry in Defence Sector, the most viable option is to selectively outsource QA functions to competent TPI Agencies. It has accordingly been endeavoured to formulate Guidelines for selection and tasking of TPI Agencies.

10.2 DGQA with its inherent experience and competence will focus on core functions / responsibilities, retaining appropriate levels of intervention, as required in selection and tasking of TPI resources.

10.3 The Scheme for outsourcing inspection to TPI Agencies is proposed to be implemented in a phased manner based on the procedural arrangements as elaborated. Initially the Scheme will be implemented for Non-core / Low Tech items. Decision on outsourcing other category of products may be taken based on the feedback / experience gained during the initial phase.

## 11. References

- |      |                          |  |
|------|--------------------------|--|
| I    | IS/ISO/IEC 17020 : 2012  | Conformity Assessment - Requirements for the Operation of Various Types of Bodies Performing Inspection. |
| II   | ISO 9001 : 2015          | Certification / Conformity Assessment pertaining to Quality Management System (QMS) of Manufacturers.    |
| III  | BCB 201 (IB – Sep 2005)  | NABCB Document – Accreditation Procedure for Inspection Bodies   |
| IV   | BCB 201 (PCB – Apr 2016) | NABCB Document – Accreditation Procedure for Product Certification Bodies                                |
| V    | BCB 110G                 | NABCB Document – Guidance on the Application of ISO / IEC 17020  |
| VI   | CQAG 9006                | HAL Policy Document on Utilization of Third Party Inspection Services                                    |
| VII  | CQAG 9007                | HAL Document - Corporate Quality Assurance Guidelines on Evaluation and Selection of Inspection Bodies   |
| VIII | AQA Directive 01 /14     | DGAQA Document – Guidelines for Quality Assurance during Outsourcing by Main Contractors.                |