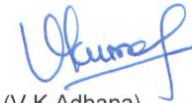


MINISTRY OF DEFENCE, ACQUISITION WING
(Acquisition Wing Secretariat)

Subject : **DRAFT POLICY GUIDELINES ON USE OF CERTIFICATION IN TRIALS
EVALUATION PROCESS OF DEFENCE EQUIPMENT**

1. The **Draft Policy Guidelines on "Use of Certification in Trials Evaluation Process of Defence Equipment"** are uploaded on the MoD website.
2. Comments/ recommendations/ suggestions on the draft are solicited by 11 Oct 2021 at email ID tms-mod@nic.in



(V K Adhana)
Director (Acq)
Telefax: 23792865

MoD I.D. No 1(8)/D(Acq)/19-Pt dated 30th Sep 2021.

No _____
Government of India
Ministry of India
Department of Defence
[Acquisition Wing Secretariat]

South Block, New Delhi-110001
Dated _____

PROPOSED OFFICE ORDER

Subject: Use of Certification in Trials Evaluation Process of Defence Equipment

1. Ref para 44, 45(b) & 75 of Chapter 2 of DAP 2020.
2. The DAP 2020 lays down need for a clear and objective assessment of the extent of trial evaluations including parameters where vendor certification, certification from accredited labs and trials by simulation are accepted. The attributes/ parameters for which Certificate of Conformance (CoC) alongwith test standards and test results from NABL/ internationally accredited and government designated labs are acceptable need to be clearly spelt out. The DAP 2020 also lays down that as far as possible, physical evaluation and environmental tests will only be carried out for critical parameters and other parameters will be evaluated based on vendor certification duly supported by NABL accredited / internationally recognized laboratories.
3. In the spirit of the provisions of DAP 2020, a proposal for implementation of use of certification in trial evaluation process of defence equipment is being issued. To start with a group of tests has been identified for acceptance of Certification in Field Evaluation Trials and is att as Appx A. The SHQs and other concerned agencies including DGQA may recommend any additional parameters as deemed fit to be added to this list. The rationale for selection of parameters for Certification are as under:-
 - (a) **Quantifiable.** Facilities exist which can provide certification for identified parameters.
 - (b) Non Mission Critical Parameters.
 - (c) **COTS Equipment/Technologies.** Especially in vehicle segment viz - Emission Norms, Braking sys etc.
 - (d) **Standard Protocols in Electronic/Communication Equipment.** Parameters wherein the equipment is required to meet Standard Protocols.
 - (e) **Lack of Labs/Facilities with Testing Agencies.** Parameters for which Testing agencies/DGQA do not have requisite Labs/capability to test a certain

parameter and only vendor in possession of data for corroborating certification eg Shelf Life, Engine Life, NBC Protection.

(f) In Service Equipment.

(g) Tests/Parameters Identified For Certification.

4. **Acceptance of Certification.**

(a) In Buy (Global) as well as FTP cases, certification is accepted for a higher percentage of parameters. Whereas when the procurement is from Indian industry/vendors, acceptance of such compliances through certification is restricted to bare minimum, especially for parameters which are often not feasible to be physically evaluated.

(b) Further, the agencies conducting trials have hesitation in accepting certification from reputed Government/DPSU Labs though not accredited for the time being.

(c) The agencies also view vendor certification with suspicion with regard to authenticity of follow-up data of certification.

5. However, it is felt that there is now a requirement of instilling confidence in the stakeholders to accept certification based evaluation in certain identified **non-mission critical** parameters through policy implementation guidelines.

Tenets of Certification Based Trial Evaluation.

6. **Important operational Parameters.** The validation of core/ operational parameters may continue to be primarily by physical trials. However, for other parameters and validation in areas/ terrain other than primary area of employment, a combination of physical and certification evaluation can be undertaken in concert with the capability building process which entails establishment of more accredited labs/facilities.

7. **Evaluation of Parameters at Extreme Limits.** During evaluation of parameters of equipment in extreme weather conditions, ie temperature, humidity, etc, it has been observed that at times, the extreme limits of temperatures/ humidity etc for testing do not become available due to unpredictable seasonal/climatic conditions, thereby leading to considerable delay in trials owing to wait for next season. In such cases, if the maximum/minimum conditions are not available during designated specified window of trials, the equipment may be evaluated in the nearest conditions available (preferably within 10-15%) and certification for extreme conditions be taken.

8. **Certificate of Conformance (CoC) in Design & Development Projects.** Any parameter evaluated at any stage with user satisfaction should not be repeated. Such trials should be in presence of designated representatives. The provision of Certificate of Conformance (CoC) as provided in DAP 2020 needs to be leveraged.

9. **Order of Precedence of Certification**. Certification can be obtained by vendors after evaluation of the system from a recognized lab/ any other authorised agency. It must be ensured that all certificates are supported by test results attached with them and may be accepted in the following order of precedence:-

- (a) International/ NABL accredited lab certification.
- (b) OEM Certification.
- (c) Vendor Certification.

Parameters and Implementation of Certification Based Evaluation

10. **Indicative List of Parameters**. An indicative list of parameters for acceptance by Certification based on analysis of procurement cases in the study are attached as Appendix. These parameters can be suitably aligned / interpreted for trials which have not been specifically mentioned in the study / guidelines.

11. **Other Parameters**. Parameters for evaluation by certification for equipment and weapon systems not covered above needs to be evolved by SHQ on similar lines. Parameters which cannot be verified at the time of trials due to any reason may be accepted based on certification and provision for such parameters may be included in the RFP.

12. **In-Service Equipment**. In- service equipment if required to be evaluated through trials, may be accepted based on certification. Any changes/modifications/ up gradations may be evaluated through limited functional & fitment trials.

13. **Implementation**. These guidelines need to be implemented in following manner:-

- (a) Parameters for which facilities/accredited labs exist to provide certification need to be implemented forthwith.
- (b) Parameters for which facilities/ accredited labs are non-existent for the time being or are very limited in number, these guidelines may implemented by the stakeholders in a progressive manner.
- (c) RFI needs to be suitably aligned for obtaining requisite inputs from industry and stakeholders to arrive at parameters for certification.
- (d) Parameters for evaluation by certification may be spelt out in Trial Methodology as part of RFP and further amplified in Trial Directive.
- (e) Trial Team may be authorized to accept/reject the certification based on scrutiny by User/DGQA/technical representatives of Trial Team.

Miscellaneous Issues

14. **Ownership.**

(a) SHQ being the primary stakeholder will always remain driver in ensuring that all trial & evaluation agencies carryout evaluation of only essential core parameters within specified time frames. User/SHQ will validate trial methodology, draft ATP guidelines, ESP, MET, EMI/EMC and DGQA trial parameters as per user requirement.

(b) The list of parameters identified for evaluation by certification is not exhaustive and would be decided on case to case basis by SHQ, keeping in mind the integrity of the trial process, technical complexity of equipment, facilities existing for providing certification and the overriding requirement of completing the trials in a time bound manner as enunciated in the DAP 2020.

15. **Safeguards.** In order to ensure integrity of trial procedure based on vendor/ lab based certification, it is imperative that certifications are credible & reliable. Hence, all the certifications need to be backed by reliable data to substantiate veracity. In case the Vendor Certification is found to be false, the vendor could be penalized through forfeiture of BGs, financial penalties and/or blacklisting/ suspension and such provisions may be accordingly incorporated in the RFPs.

16. **Capability Building.**

(a) Certification from reputed Government/DPSU/ Private Labs be accepted till requisite accredited Labs are in place to provide certification.

(b) Development & accreditation of infrastructure/ Labs for certification be coordinated with DTIS and need to be fast tracked in next 2 to 4 years.

17. The SHQs, DGQA and other stakeholders are requested to examine the parameters identified for Certification and fwd their comments depending on their equipment/ weapon platforms. The parameters may be revised periodically by SHQ in accordance with the capability building process.

Conclusion

18. DAP 2020 focuses on simplifying the Defence acquisition procedure through refinement of trial process to achieve time bound procurement. Towards this end, there is a requirement of providing impetus to evaluation by certification during trials through synergized approach involving all stakeholders including industry to further 'Self Reliance' of the country in defence sector.

Appendix A
(Refer para 3 of Office
Order)

TESTS IDENTIFIED FOR CERTIFICATION

<u>Ser No</u>	<u>Parameters</u>	<u>Sub Parameters</u>
<u>Quantifiable</u>		
1.	Physical Attributes.	<ul style="list-style-type: none"> • Ground Clearance • Caliber • Barrel Length • Combat weight • Height & similar parameters
2.	Strategic Mobility.	<ul style="list-style-type: none"> • Railways • Air • Naval Ship
3.	Tactical Transportability.	<ul style="list-style-type: none"> • Man Pack • All Vehicles • Para Dropped
<u>Non Mission Critical Parameters</u>		
4.	<u>Maintenance & Reliability.</u>	<ul style="list-style-type: none"> • MTBF / MTTR • Maintainability Aspects • Modular design and construction • Durability (no major OH for xx yrs)
5.	<u>Environmental & Climatic Conditions.</u>	<ul style="list-style-type: none"> • Requirement of System • Operation in terrain / weather conditions • Equipment operation under JSS-55555 • Operational Temperature range
6.	<u>Camouflage.</u>	<ul style="list-style-type: none"> • Surface Colour • Shape
7.	<u>Packaging Standards.</u>	As per specified parameters
<u>COTS Equipment/Technologies</u>		
8.	Emission Norms.	As per CMVR norms prevalent at the time of trials
9.	Braking System.	<ul style="list-style-type: none"> • Anti lock braking system (ABS) • Parking brakes
10.	Gradeability & Side	<ul style="list-style-type: none"> • Specified gradient and Cant angle

	Slope Capability.	<ul style="list-style-type: none"> • Angle of approach and departure
Ser No	<u>Parameters</u>	<u>Sub Parameters</u>
<u>Std Protocols in Electronic/Communication Equipment</u>		
11.	Operation Range.	A/B Vehicle Endurance
12.	EMI / EMC Compatibility.	<ul style="list-style-type: none"> • As per JSG-0261 & Mil Std 464C • Military grade equipment • Cots Equipment • Electrical / Electronic systems • Sub system assemblies & Sub-assemblies
13.	Communication.	<ul style="list-style-type: none"> • Modes of operations • Redundancy of communication equipment • Data/Fax/ Modem Characteristics • Standard Protocols • Traffic policing & traffic shaping • Prioritization and congestion management • Safety Features
14.	Power Supply.	<ul style="list-style-type: none"> • Maintainable / Inaudible • Use mains as power source
<u>Lack of Labs/Facilities with Testing Agencies</u>		
15.	Shelf Life.	<ul style="list-style-type: none"> • As per specified conditions of manufacturer • Explosives / Missiles / Ammunition
16.	NBC Protection.	As per in-service equipment
17.	Firing Related Parameters.	Type of mechanism electric / mechanical
18.	Non Verifiable Parameters.	That cant be verified during FET and certification as per trial directive
<u>In Service Equipment / Equipment Related</u>		
19.	In service Equipment.	Ordinance capable to fire in-service ammunition
20.	Target Seeker.	Active / Passive
21.	Sight System.	Day / Night
22.	Engine Configuration.	GT, Petrol, Diesel, Multi-Fuel