



**Northern Region Farm Machinery Training & Testing Institute
(Ministry of Agriculture and Farmers Welfare)**

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UAS Scheme Requirements

1. Administrative structure

1.1 Legal Entity

Northern Region Farm Machinery Training & Testing Institute (NRFMTTI), Hisar is a subordinate office of Ministry of Agriculture & Farmers Welfare, Deptt. of Agriculture & Farmers Welfare, Govt. of India and is a legal entity such that it can be held legally responsible for all its Certification activities. This institute is deemed to be a legal entity on the basis of its Governmental status. The Testing Wing, that is part of NRFMTTI, Hisar is involved in functions other than certification, is separate and identifiable within the organization.

1.2 Organizational Structure

NRFMTTI, Hisar has well defined and documented the duties, responsibilities and reporting structure of its personnel and any committee and its place within the organization. Since NRFMTTI, HISAR is a defined part of a legal entity, documentation of the organizational structure is included in the line of authority and the relationship to other parts within the same legal entity.

1.3 Integrity

NRFMTTI, Hisar and its personnel maintain integrity at all times. The NRFMTTI, HISAR implement adequate measures to ensure integrity by obtaining under taking from the personnel at the time of joining at this institute.

1.4 Impartiality

- NRFMTTI, Hisar will remain impartial and it is so structured and managed as to safeguard impartiality.
- NRFMTTI, Hisar and its personnel / staff will not engage in any activities that may conflict with their impartiality.
- Personnel involved in the certification process will sign a contract or other document declaring any prior and/or present association on their own part, or on the part of their employer.

- It will be ensured that NRFMTTI, Hisar and any part of the same legal entity and entities under its organizational control is not: be the designer, manufacturer, installer, distributor or maintainer of the certified product; offer or provide management system consultancy or internal auditing to its clients where the certification scheme requires the evaluation of the client's management system.
- It will further ensured that activities of separate legal entities with which the NRFMTTI, HISAR or the legal entity of which it forms a part has relationships, do not compromise the impartiality of its certification activities.
- When a separate legal entity offers or produces a certified product (including products to be certified) or offers or provides consultancy, the NRFMTTI, Hisar's management personnel and personnel in the review and certification decision- making process will not be involved in the activities of the separate legal entity. The personnel of the separate legal entity will not be involved in the management of the NRFMTTI, Hisar, the review, or the certification decision.
- NRFMTTI, Hisar will act impartially in relation to its applicants and certified clients.
- NRFMTTI, Hisar will establish and implement a documented procedure for analyzing threats against impartiality of the NRFMTTI, Hisar. The analysis shall cover all existing potential sources of conflict of interests, arising at NRFMTTI, Hisar's activities (its own activities, activities of the related bodies and activities of personnel it employs) and from its relationships (organizational as well as individual's).
- NRFMTTI, Hisar will ensure that a conflict of interest analysis is carried out at least once annually and whenever a significant change occurs in the NRFMTTI, Hisar's activities, such as changes in the organizational structure and business activities or of the legal status and mergers with, or acquisitions of other organizations.
- It is understood that the relationship that threatens the impartiality of the NRFMTTI, Hisar can be based on ownership, governance, management, personnel, shared resources, finances, contracts, marketing and payment of a sales commission or other inducement for the referral of new clients, etc.
- While carrying out the conflict of interest analysis the following risks, but not limited to them, will also be considered:
 - a) Self-interest threats: threats that arise from a person or body acting in their own interest. A concern related to certification, as a threat to impartiality, is financial self-interest.
 - b) Self-review threats: threats that arise from a person or body reviewing the work done by themselves. The certification of a client, whose product was designed or who was provided service regarding internal evaluation by the NRFMTTI, HISAR or the personnel it employs would be a self-review threat.

- c) Familiarity (or trust) threats: threats that arise from a person or body being too familiar with or trusting of another person instead of seeking evaluation evidence. Repeat evaluation of a client by the same evaluator/auditor, over and over again may also present a familiarity threat.
 - d) Intimidation threats: threats that arise from a person or body having a perception of being coerced openly or secretly, such a threat to be replaced or reported to a supervisor.
- When a relationship poses an unacceptable threat to impartiality then certification will not be provided. Some of the situations requiring prohibitions as mitigation measures which have been described vide clause 4.2.6 of ISO 17065:2012 will be consulted. These will be implemented together with the additional ones given below. NRFMTTI, Hisar and any part of the same legal entity and entities under its organizational control will not:
 - a) Be the designer, manufacturer, installer, distributor or maintainer of the certified product;
 - b) Be the designer, implementer, operator or maintainer of the certified process;
 - c) Be the designer, implementer, provider or maintainer of the certified service;
 - d) Offer or provide consultancy to its clients;
 - e) Offer or provide management system consultancy or internal auditing to its clients where the certification scheme requires the evaluation of the client's management system.
- Further, where risks to impartiality are identified as a result of risk analysis, NRFMTTI, Hisar will establish and implement a documented procedure for mitigation of threats against impartiality. These will be through any of the following mitigation means:
 - a) NRFMTTI, Hisar will not use personnel in evaluations if they have been employed by or involved in consultancy / training towards the client, for a minimum of two years following the end of the employment / consultancy / training.
 - b) NRFMTTI, Hisar will not have any relationship with its clients other than third party conformity assessment.
 - c) NRFMTTI, Hisar will not impart education and/or training within the same legal entity.
 - d) NRFMTTI, Hisar will have a process to eliminate or minimize risk to impartiality if training/education is carried out in a related body which is linked to the NRFMTTI, HISAR by common ownership etc.

1.5 Liability and Financing

- NRFMTTI, Hisar will evaluate its finances and sources of income and demonstrate that initially, and on an ongoing basis, commercial, financial or other pressures do not compromise its impartiality.
- NRFMTTI, Hisar will demonstrate that it has evaluated the risks arising from its certification/inspection activities and that it has adequate arrangements (e.g. insurance or reserves) to cover liabilities arising from its operations in each of its fields of activities and the geographic areas in which it operates.
- NRFMTTI, Hisar will demonstrate that it has a reasonable expectation of being able to provide and to continue to provide the service in accordance with its contractual obligations. NRFMTTI, Hisar will provide sufficient evidence to demonstrate its viability, e.g. management reports or minutes, annual reports, financial audit reports, financial plans, etc.

1.6 Publicly Available Information

- NRFMTTI, Hisar will maintain a website for providing information about the Scheme and its certification activities under the Scheme.
- It will maintain and make publicly available information describing its certification processes for granting, maintaining, extending, renewing, reducing, suspending or withdrawing certification, and about the certification activities and geographical areas in which it operates.
- It will also make publicly available information about applications registered and certifications granted, suspended or withdrawn.
- Moreover, it will make publicly available its processes for handling appeals and complaints.

1.7 Confidentiality

NRFMTTI, Hisar will be responsible for, will retain authority for, and will not delegate, decisions relating to certification, including the granting, maintaining, recertifying, expanding and reducing the scope of the certification, and suspending or withdrawing the certification. In addition to the requirements specified in ISO 17065:2012 (clause 4.5) following will apply:

- NRFMTTI, Hisar will have a documented policy and mechanism to safeguard the confidentiality of information obtained or created during the course of certification activities. It will also be part of the certification agreement.
- NRFMTTI, Hisar will be responsible, through legally enforceable commitments, for the management of all information obtained or created during the performance of certification activities. Except for information that the client makes publicly available, or when agreed between the certification body and the client (e.g. for the purpose of responding to complaints), all other information is considered proprietary information and will be regarded as confidential. NRFMTTI, Hisar will inform the client, in advance, of the information it intends to place in the public domain.

- When NRFMTTI, Hisar is required by law or authorized by contractual arrangements to release confidential information, the client or person concerned shall, unless prohibited by law, be notified of the information provided.
- Personnel, including any committee members, contractors, personnel of external bodies or individuals acting on the NRFMTTI, Hisar's behalf, will keep confidential all information obtained or created during the performance of the NRFMTTI, Hisar's activities. There will be a mechanism such as obtaining signed confidentiality agreements, etc. for ensuring the same.
- NRFMTTI, Hisar will use equipment and facilities that ensure the secure handling of confidential information (e.g. documents, records). When confidential information is made available to other bodies (e.g. accreditation body, agreement group of a peer assessment scheme), NRFMTTI, Hisar will inform its client of this action, in advance, through agreements, etc.
- Information about the client obtained from sources other than the client (e.g. from the complainant or from regulators) through the evaluation process, if used for certification decision by NRFMTTI, Hisar will be made known to the client
- In case of transfer of certificate or application, when the client decides to move from one Certification Body to another, the NRFMTTI, Hisar to which the client is now moving may ask the previous Certification Body for information on the reasons for such movement or the performance of the client with respect to the certification requirements. The previous Certification Body will be obliged to share UAS Requirements to NRFMTTI, Hisar within a reasonable time, not exceeding 10 days from the date of receipt of the request. Such information shall not be considered as confidential and the NRFMTTI, Hisar shall inform its client of this requirement, in advance, through agreements, etc.

1.8 General

- NRFMTTI, Hisar will have, as part of its own organization, personnel having sufficient competence for managing the UAS Certification Scheme that it operates.
- While determining sufficiency of resources NRFMTTI, Hisar will also take in to consideration the requirements with respect to technical personnel competent for the development and establishment of NRFMTTI, Hisar's internal systems in accordance with the UAS Certification Scheme requirements and for operational functions like application review, Evaluation (all stages like initial, renewal), review and decision making.
- NRFMTTI, Hisar will employ, or have access to, a sufficient number of evaluators, including evaluation team leaders, and technical experts to cover all of its activities with respect to UAS Certification Scheme and to handle the volume of evaluation work performed.

- NRFMTTI, Hisar will determine competency requirements (knowledge and skills required for different functions defined in the NRFMTTI, Hisar's structure) and describe the mechanism/predefined routes in terms of education, qualification, experience, knowledge and skills, training, etc. and will cover management as well as certification process related functions. These will include the following:
 - a) Development and establishment of NRFMTTI, Hisar's internal systems in accordance with the UASS Certification Scheme requirements
 - b) Management of the certification activities
 - c) Application review
 - d) Undertaking Evaluation (all stages like initial, renewal, etc.): These shall cover assessors/auditors, team leaders and technical experts as well as evaluation teams as whole;
 - e) Review and decision making.

- Individuals assigned to perform certification functions as stated above need not necessarily each have all the required competencies. However, NRFMTTI, Hisar will ensure that it has the collective competence to perform those functions and that in individual cases an individual or a group of individuals having the required competence can perform the individual function. For example, the certification decision maker may not have the required competence, but if the report has been reviewed by an independent technical expert the collective competence may be evident.

- NRFMTTI, Hisar will also have processes for assessing to determine if the designated persons have the necessary competence as described. Records will show which personnel are designated as competent, the date of assessment and the details of evidence based on which competence is adjudged.

1.9 Competence of Management and Personnel

- NRFMTTI, Hisar will have processes to ensure that personnel have appropriate knowledge of product certification, UAS Certification Scheme requirements and any other related requirements like regulatory requirements etc.
- NRFMTTI, Hisar will have access to the necessary technical expertise for advice on matters directly relating to UAS Certification Scheme. Such advice may be provided externally or by NRFMTTI, Hisar personnel

1.10 Competence Requirements for Personnel Involved in Certification Activities

Application Review Function: The personnel performing the application review will be qualified for their understanding of the UAS Scheme, the certification criteria and process requirements, sufficient for carrying out the application review function effectively in accordance with the certification process requirements. The application reviewer will be qualified on the basis of competence to carry out the review function based on experience of

having performed a technical review under the UAS Certification Scheme or any other comparable scheme.

Technical Review Function: The technical review will consist of an independent and structured assessment to verify if all the UAS Scheme related requirements have been fulfilled. It shall fulfill the following requirements:

- a) The technical review function will be independent of assessment and evaluation functions
- b) The personnel (or group of personnel) performing the certification decision will be qualified for their understanding of the certification criteria, certification scheme and certification process requirements and their ability to correctly grant or expand the UASS Requirements for NRFMTTI, Hisar scope of certification on the basis that the evaluation activities, information and results are a demonstration of fulfillment of requirements of the certification criteria in accordance with the UAS Certification Scheme.
- c) For the purpose of initial evaluation, the technical reviewer(s) or committee will have at least one person who has experience of design, development and operation of unmanned aircrafts, or related knowledge/expertise to be equal to or more than 3 years.

Technical reviewer shall be qualified on the basis of demonstrated competence to carry out the review function based on experience of having performed technical review under the UASS Certification Scheme or other comparable schemes.

Decision making: This function involves decision on granting, maintaining, renewing, extending, reducing, suspending or withdrawing certification. The decision making functionary will fulfill the following requirements:

- a) The person(s) or committee, who take(s) the decision on granting certification under the UAS Certification Scheme will be duly authorized by the NRFMTTI, Hisar for the task and will have knowledge and experience sufficient to evaluate the information obtained from the evaluation process and the review.
- b) The technical review and the decision may be completed concurrently by the same person(s) or committee, provided they fulfill the necessary requirements. In case of a committee, it shall have the combined competence of technical reviewer and decision maker

Impartiality and absence of conflict of interest will be ensured before entrusting the task of certification decision making.

2. Technical Resources

2.1 Personnel

- NRFMTTI, Hisar will have, as part of its own organization, personnel, either employed or on contract, having sufficient competence for managing the certification / inspection process of UAS Certification Scheme.
- NRFMTTI, Hisar will have defined processes for selecting, training, and formally authorizing and monitoring the performance of its personnel involved in carrying out the

various certification / inspection activities and for selecting technical experts, if needed, as per the requirements of the Scheme Document.

2.2 Competence of Evaluators

In addition to the requirement given above, every person undertaking evaluations will have the appropriate qualification, training, experience and skills to perform it. They will have the ability to make professional judgments as to the conformity with general requirements using examination results and to report thereon. They will understand the significance of deviations found and their effect on the safety and security of UAS and NPNT.

2.2.1 Education

- ***Evaluators involved in evaluation of all requirements of technical criteria excluding those of NPNT:*** NRFMTTI, Hisar will ensure that the evaluators have at least a graduation degree in Aeronautical, Electronics, Computer, IT, Mechanical/ Metallurgical engineering or equivalent. For any exemption from these requirements, NRFMTTI, Hisar will approach the scheme owner.
- ***NPNT evaluators:*** NRFMTTI, Hisar will ensure that the evaluators have at least a Graduation degree in software & information technology products and IT enabled services like software engineering, computer science, Information Technology, Artificial Intelligence, Electrical/ Electronic engineering with emphasis on software technology, embedded system technology etc.

2.2.2 Work Experience

- ***Evaluators involved in evaluation of all requirements of technical criteria excluding those of NPNT:*** The evaluators will have at least 3 years of full-time post qualification experience in manufacturing, assembling, operations, inspection or enforcement, or the equivalent industry.
- ***NPNT evaluators*** - The NPNT evaluators will have at least 3 years of full-time post qualification experience in software and IT System testing work experience in one or more of the following:
Telecom software/ Protocol/ Embedded systems/ Mobile Device and Mobile Applications/ IOT Block chain/ AI or UAS software system/ application/ Data analytics Software/ Process and control software/ Sector specific Software & IT system/ Software product test & evaluation as per regulatory framework/ guidelines.

2.2.3 Training

- ***Evaluators involved in evaluation of all requirements of technical criteria excluding those of NPNT:*** NRFMTTI, Hisar will ensure that evaluators have successfully completed training in evaluation techniques and training as applicable in ISO 17065 standard or equivalent.
- ***NPNT evaluators:*** Minimum 3 years of on the job training in developing software/firmware related to UAS or automotive or IoT products or other aviation industry products under the supervision of a qualified personnel with 10 years of experience in the Information Technology (IT) same field.

2.2.4 Evaluation Experience

- *Evaluators involved in evaluation of all requirements of technical criteria excluding those of NPNT:* NRFMTTI, Hisar will ensure that within the last three years, the evaluators has performed at least 10 man-days of evaluation in at least 2 organizations for an equivalent standard, under the leadership of a qualified evaluators, and this demonstration has met with acceptance of the qualified evaluators. The time spent by the observer/trainee will not count towards time spent on evaluation.
- *NPNT Evaluators:* NRFMTTI, Hisar will ensure that NPNT evaluators have a minimum 2 years of IT work experience related to NPNT.

For maintaining the qualification of the evaluator, NRFMTTI, Hisar will ensure that evaluator has performed a minimum of 5 man-days of evaluation per year. NRFMTTI, Hisar will define competence for other personal involved in certification systems other than evaluation function.

2.3 Personnel Records

NRFMTTI, Hisar shall maintain up-to-date personnel records, as per requirements of the Scheme document, of each member of its personnel involved in its certification / inspection activities.