SAE The Engineering Society For Advancing Mobility Land Sea Air and Space®
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE STANDARD

SAE AS7003 | REV. A

Issued 1990-07-02
Revised 1992-10-30

Superseding AS7003

Submitted for recognition as an American National Standard

NATIONAL AEROSPACE AND DEFENSE CONTRACTORS ACCREDITATION PROGRAM (NADCAP)

PROGRAM OPERATION

FOREWORD

For some time, the Department of Defense (DoD) has been pursuing the concept of a national certification and accreditation program that is nongovernment-sponsored, industry-supported, and government-endorsed and utilized.

At the DoD/SAE/ASTM "Equal Partner" conference in December 1985, the April 1986 Multinational Military Standardization Seminar, and the July 1986 Defense Standardization and Data Management Conference, industry and the DoD highlighted the following key elements for a successful program: (1) a certification or accreditation system that includes informational feedback, (2) a verification system that incorporates audit reviews, (3) sponsorship by nationally recognized private sector organizations with government participation, and (4) a time frame that provides for harmonious transition from the various programs and systems in use today.

The endorsement of the concepts of current certification and accreditation activities and acknowledgment of the need for a national certification and accreditation approval program appear to be very timely considering the directed implementation of the recommendations of the President's Commission on Defense Management, specifically the use of commercial products.

SAE expressed a willingness to cooperate with the DoD in the establishment of national policies and procedures for the formation of a U.S. certification, accreditation, and verification program. At its Spring 1987 meeting the Aerospace Council requested that the AMS Division of SAE develop a proposal for a Third-Party Qualification or Accreditation Program.

By September 1987, the first meeting of an ad hoc committee was held on the third-party qualification/accreditation program. This committee was to become known as the Management Committee of the National Aerospace and Defense Contractors Accreditation Program (NADCAP) and is now recognized as the NADCAP Council.

FOREWORD (Continued)

At its May 1988 meeting the SAE Aerospace Council unanimously approved implementation of two proposed pilot programs: (1) AMD NDT Suppliers Accreditation Program and (2) AMD Sealants Manufacturers Accreditation Program.

The NADCAP Council envisions many benefits of the accreditation program including (1) dramatically reduced costs of quality assurance for original equipment manufacturers (OEMs), (2) improved product quality via in-house continuing surveillance, (3) improved quality and reliability of parts and suppliers to the replacement market, (4) uniformity of audit criteria, (5) reduced receiving inspection and testing at OEMs, (6) reduced cost to suppliers via dramatically reduced audits and surveillance, and (7) eventually reduced costs of Contract Administration Services (CAS) agency efforts. NADCAP accreditation assures a total quality product, process, or service and promotes total quality management (TQM).

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1. SCOPE:

1.1 This Aerospace Standard (AS) documents the procedures for implementing third-party accreditation programs administered by NADCAP.

1.2 Under these programs a supplier of an accredited product, process, or service is authorized by NADCAP to use the program's mark (a mark of conformity) and a certificate to indicate that the accredited product, process, or service is in compliance with applicable standards and/or specifications.

1.3 The procedures in this document are based on ISO/IEC Guides for third-party certification, registration, and accreditation programs where these guides do not violate United States laws. The adoption of these guides allows International harmonization of requirements for certification, registration, and accreditation.

1.4 Covered in this standard are the operations of the NADCAP Council with its committees and task groups, NADCAP headquarters and field personnel, procedures for conducting audits, awarding accreditation, and continuing surveillance of suppliers. Supporting SAE Aerospace Standards provide requirements for supplier compliance with NADCAP requirements for each individual product, process, or service to be accredited. Supporting Audit Criteria document the audit requirements for each NADCAP commodity.

2. REFERENCES:

The following publications form a part of this standard to the extent specified herein. The latest issue of all publications shall apply.

2.1 Applicable Documents:

2.1.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AS7001 National Aerospace and Defense Contractors Accreditation Program (NADCAP) - Program Description
AS7002 National Aerospace and Defense Contractors Accreditation Program (NADCAP) - Rules for Implementation

2.1.2 ANSI Publications: Available from American National Standards Institute, 1430 Broadway, New York, NY 10018.

Z34.1 Standard for Third Party Certification Programs for Products, Processes, and Services

2.2 Related Publications:

The following publications are provided for information purposes only and are not a required part of this document.

2.2.1 Government Publications: Available from Naval Publications and Forms Center, Attn: NPODS, 5801 Tabor Avenue, Philadelphia, PA 19120-5099.

FED-STD-368	Quality Control System Requirements
MIL-STD-1535	Supplier Quality Assurance Program Requirements
MIL-Q-9858	Quality Program Requirements
MIL-I-45208	Inspection System Requirements

2.2.2 ISO Publications: Available from American National Standards Institute, 1430 Broadway, New York, NY 10018.

ISO 8402	Quality - Vocabulary
ISO Guide 2	General terms and their definitions concerning standardization, certification, and testing laboratory accreditation
ISO Guide 27	Guidelines for corrective action to be taken by a certification body in the event of misuse of its mark of conformity
ISO/IEC Guide 28	General rules for a model third-party certification system for products
ISO/IEC Guide 40	General requirements for the acceptance of inspection bodies
ISO/IEC Guide 56	An approach to the review by a certification body of its own internal quality system
ISO 9000	Quality management and quality assurance standards - Guidelines for selection and use
ISO 9001	Quality systems - Model for quality assurance in design/development, production, installation, and servicing
ISO 9002	Quality systems - Model for quality assurance in production and installation
ISO 9003	Quality systems - Model for quality assurance in final inspection and test
ISO 9004	Quality management and quality system elements - Guidelines

2.3 Definitions:

The definitions used in this third-party accreditation program are those from ISO/IEC Guide 2-1986, "General terms and their definitions concerning standardization and related activities."

2.3.1 For use within NADCAP, the following additions or exceptions shall apply:

2.3.1.1 ACCREDITATION: Formal recognition that a producer is competent to furnish a specified product, process, or service.

2.3.1.2 PRODUCER: The manufacturer, distributor, supplier, or other party providing the product, process, or service who is responsible for assuring conformity with all requirements of the referenced standards or specifications and is authorized to use the mark or certificate of conformity.

2.3.1.3 STANDARD: A prescribed set of conditions and requirements, established by authority or agreement, for continuous application. A standard takes the form of a document containing a set of conditions to be fulfilled, or an object of comparison.

2.3.1.4 SPECIFICATION: A concise statement of requirements to be satisfied by a product, process, or service indicating, whenever appropriate, the procedure by which it may be determined whether the requirements given are satisfied. Insofar as is practicable, the requirements of a specification are to be expressed in exact numerical terms describing applicable limits.

2.3.1.5 THIRD-PARTY CERTIFICATION: A form of certification in which the producer's claim of conformity is validated, as part of a third-party certification program by a technically and otherwise competent body other than one controlled by the producer or the buyer.

2.3.1.6 THIRD-PARTY TESTING/INSPECTION BODY: An organization that possesses the necessary technical competence and that is other than one operated or controlled by a manufacturer, supplier, or buyer of a certified product or service in that it has no organizational, financial, or commercial involvements with the producer or buyer that might pose a potential conflict of interest.

2.3.2 Additional relevant definitions from ISO/IEC Guide 2 - 1986 are applicable, the most relevant being essentially quoted below.

2.3.2.1 CONFORMITY: Fulfillment by a product, process, or service of all requirements specified.

2.3.2.2 THIRD PARTY: Person or body that is recognized as being independent of the parties involved, as concerns the issue in question.

NOTE: Parties involved are usually supplier ("first party") and purchaser ("second party") interests.

2.3.2.3 CERTIFICATION OF CONFORMITY: Action by a third party, demonstrating that adequate confidence is provided that a duly identified product, process, or service is in conformity with a specific standard or other normative document.

2.3.2.4 CERTIFICATION SYSTEM: System that has its own rules of procedure and management for carrying out certification of conformity.

NOTE: 1) Certification systems may be operated at, for example, national, regional, or international level.
2) The central body that conducts and administers a certification system may decentralize its activities and rights to certify conformity.

2.3.2.5 CERTIFICATION PROGRAM: Certification system as related to specified products, processes, or services to which the same particular standards and rules, and the same procedure, apply.

NOTE: The term "certification scheme" is used in some countries to cover the same concept as "certification program".

2.3.2.6 CERTIFICATION BODY: Body that conducts certification of conformity.

NOTE: A certification body may operate its own testing and inspection activities or oversee these activities carried out on its behalf by other bodies.

2.3.2.7 INSPECTION BODY (FOR CERTIFICATION): Body that performs inspection services on behalf of a certification body.

2.3.2.8 CERTIFICATE OF CONFORMITY: Document issued under the rules of a certification system, indicating that adequate confidence is provided that a duly identified product, process, or service is in conformity with a specific standard or other normative document.

2.3.2.9 MARK OF CONFORMITY (FOR CERTIFICATION): Protected mark, applied or issued under the rules of a certification system, indicating that adequate confidence is provided that the relevant product, process, or service is in conformity with a specific standard or other normative document.

2.3.2.10 TEST: Technical operation that consists of the determination of one or more characteristics of a given product, process, or service according to a specified procedure.

2.3.2.11 TEST METHOD: Specified technical procedure for performing a test.

2.3.2.12 TEST REPORT: Document that presents test results and other information relevant to a test.

2.3.2.13 TESTING LABORATORY: Laboratory that performs tests.

NOTE: The term "testing laboratory" can be used in the sense of a legal entity, a technical entity or both.

2.3.2.14 INTERLABORATORY TEST COMPARISONS: Organization, performance, and evaluation of tests on the same or similar items or materials by two or more laboratories in accordance with predetermined conditions.

2.3.2.15 (LABORATORY) PROFICIENCY TESTING: Determination of laboratory testing performance by means of interlaboratory test comparisons.

3. NADCAP GENERAL PROGRAM DESCRIPTION:

3.1 NADCAP provides a basic uniform method for assessing and accrediting the capability of suppliers to meet specific program requirements.

3.2 NADCAP identifies suppliers who have demonstrated a capability of providing an identified process, product, or service of specified quality.

3.2.1 NADCAP initially determines supplier capability through audits and information provided by suppliers. Continuing supplier capability is determined through efforts including continuing surveillance, periodic follow-up audits, proficiency evaluations, and evaluation of information received from suppliers, inputs from users concerning supplier's continuing performance, and supplier's information on generic and specific problems from data bases.

3.2.2 NADCAP utilizes finished items and other techniques to maintain continuing awareness of supplier capability and proficiency. For some NADCAP commodities there is continuing surveillance through ongoing inspections or reviews of inspection and tests on supplier processes and finished items to assure compliance with the specified requirements.

3.3 Suppliers apply for accreditation by submitting an application with the necessary information and fees. The application is reviewed by the NADCAP permanent staff and audit personnel are assigned. The audit is conducted using NADCAP approved checklists. The duration of the audit is a function of specific program requirements. The auditor's observations and recommendation are reviewed by the appropriate Task Group and the User's Accreditation Advisory Panel. A report to the NADCAP Council is then given on accreditation status.

3.4 NADCAP accredited suppliers are included on the NADCAP Qualified Manufacturers List (QML) along with their qualified products, processes, or services.

3.4.1 The QML is published annually with quarterly updates and are available to subscribing users of the products, processes, and services through an international on-line network (accessed by a personal computer with a modem). This data management system provides complete information on pending and accredited suppliers with addresses, points of contact, commodities qualified to specification, and any limitations in available services; a list of suppliers by commodity by geographical area; scheduling of audits cross-referenced between auditor and supplier; news alerts and electronic mail.

3.4.2 NADCAP accreditation applies only to suppliers of products, processes, and services and not to certification of individual personnel or product. A product, process, or service provided by an accredited supplier may require certain qualification requirements. Such qualification may be witnessed by the NADCAP audit/inspection personnel.

3.5 Due process is provided to suppliers by means of the NADCAP appeals procedure.

3.6 NADCAP is administered with confidentiality by the NADCAP Council.

3.7 Detailed requirements, audit criteria, and surveillance criteria are prepared by the appropriate task group(s) operating under the NADCAP Council.

4. ORGANIZATION OF NADCAP:

The organization of NADCAP is illustrated in Figure 1.

4.1 NADCAP Council:

4.1.1 The NADCAP Council is the governing body of NADCAP. Membership is in accordance with the most recent revision of the NADCAP Operating Procedures.

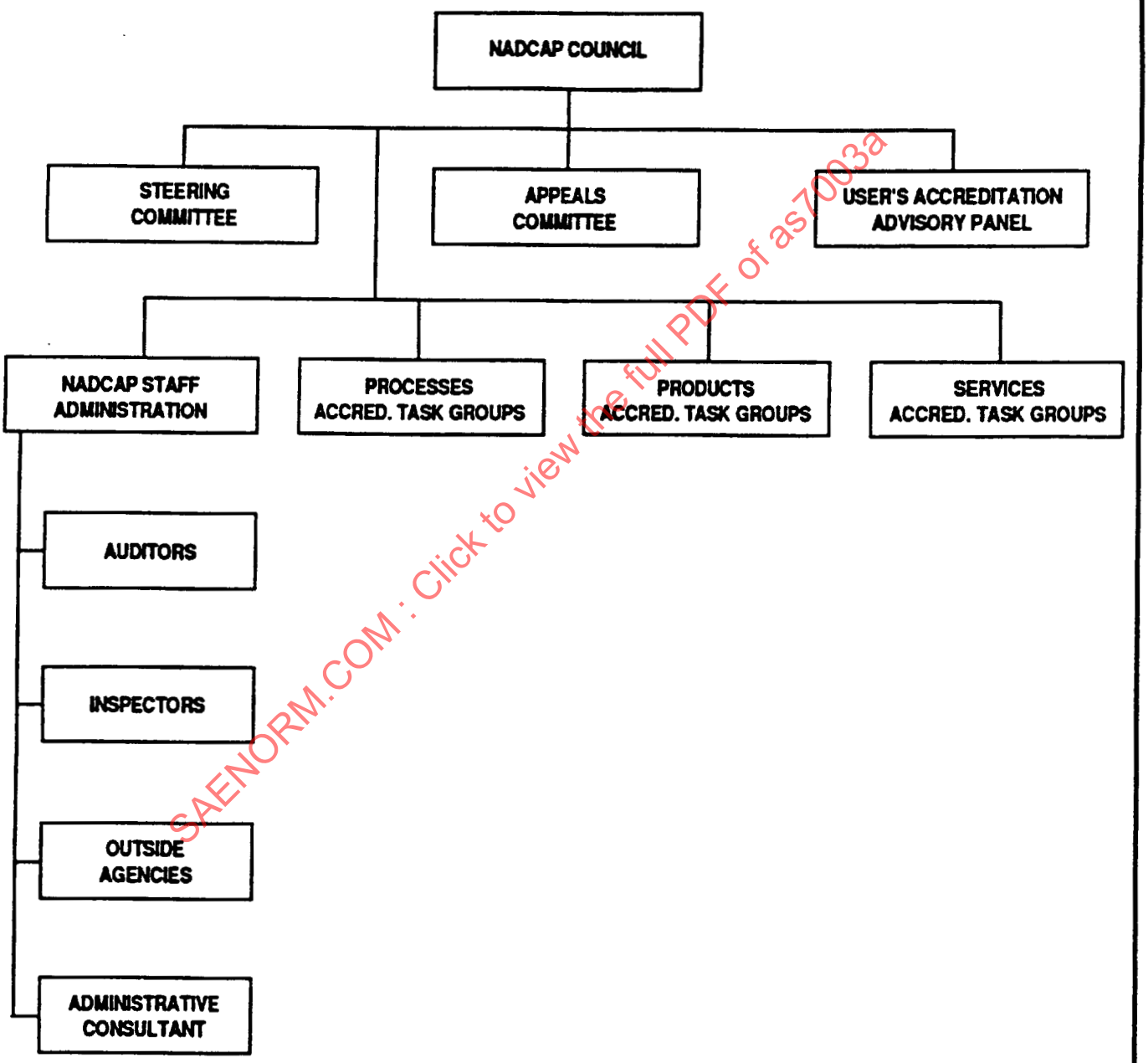

FIGURE 1 - NADCAP Organization

4.1.2 The NADCAP Council shall be responsible for:

a. Selecting a Steering Committee to provide guidance on program direction
b. Formulating policy matters relating to the operation of NADCAP commodity task groups
c. Overseeing the implementation of NADCAP policies
d. Assembling Task Groups as required to detail specific NADCAP requirements for individual products, processes, or services
e. Appointing an ad hoc Audit Committee to monitor NADCAP operations
f. Appointing an ad hoc Appeals Committee to provide a mechanism for processing of supplier's appeals of accreditation decisions
g. Appointing a User's Accreditation Advisory Panel to make final report to the NADCAP Council on accreditation decisions

4.2 NADCAP Staff:

4.2.1 A full-time NADCAP executive working with the NADCAP Council, and the necessary NADCAP staff, shall carry out the day-to-day operations. All NADCAP administrative operations shall be free from control by anyone having a direct commercial interest in any products, processes, or services for which suppliers are to be accredited.

4.2.2 The NADCAP staff is responsible for all administrative functions including:

a. Providing information to the NADCAP Council on qualifications, including academic background and experience, of auditor/inspector candidates
b. Contracting auditors/inspectors as recommended by the appropriate Task Group to perform accreditation functions in accordance with criteria prescribed by the NADCAP Council
c. Processing applications for accreditation and acting as liaison between auditors and suppliers
d. Providing a controlled copy of audit reports to the appropriate Task Group for evaluation and recommendation to the User's Accreditation Advisory Panel
e. Maintaining secured, permanent records of audit reports
f. Expeditiously processing any appeals
g. Issuing certificates of accreditation
h. Maintaining an up-to-date qualified manufacturers list (QML) reflecting those particular products, processes, or services for which suppliers are accredited
i. Maintaining documentation and change control procedures

4.3 Steering Committee:

4.3.1 A Steering Committee, selected by and reporting to the NADCAP Council, shall be composed of individuals representing all interests participating in the NADCAP accreditation process, i.e., the DoD, other U.S. Government agencies, the U.S. Armed Services, OEMs, and suppliers.

4.3.2 The NADCAP Steering Committee shall operate in accordance with the most recent revision of the NADCAP Operating Procedures.

4.3.3 The responsibilities of the Steering Committee shall include:

a. Consideration of policy matters requiring full NADCAP Council attention and action
b. Recommendations to the NADCAP Council on appointments to the User's Accreditation Advisory Panel, Appeals Committee, and Audit Committee
c. Monitoring of decisions on accreditation by the User's Accreditation Advisory Panel
d. Hearing complaints forwarded by the Appeals Committee to the NADCAP Council
e. Coordinating with the NADCAP staff any recommendations for improvement of the program brought to it by the Audit Committee
f. Identifying needs for new accreditation programs

4.4 Task Groups:

4.4.1 The Task Groups shall be composed of personnel with expertise in the particular product, process, or service for which suppliers are to be accredited. A separate Task Group will be formed for each individual NADCAP commodity.

4.4.2 The Task Groups shall operate in accordance with the most recent revision of the NADCAP Operating Procedures.

4.4.3 The Task Group shall have specific responsibilities for the accreditation program including:

a. Preparing the checklist for auditing and continuing surveillance in accordance with NADCAP criteria (see Section 6)
b. Reviewing resumes of auditor/inspector candidates and making recommendations to the NADCAP permanent staff
c. Interviewing candidates for auditor/inspector positions and making hiring recommendations to the NADCAP permanent staff
d. Reviewing audit reports and making a recommendation on accreditation to the User's Accreditation Advisory Panel
e. Participating in the appeals process

4.5 User's Accreditation Advisory Panel:

The User's Accreditation Advisory Panel shall be appointed by the NADCAP Council in accordance with the most recent revision of the NADCAP Operating Procedures. This panel shall be composed of individuals from the user community or ultimate customers with expertise in quality systems evaluation or specific knowledge of products, processes, or services for which suppliers are to be accredited.

The User's Accreditation Advisory Panel shall review reports of the NADCAP permanent staff, auditors or inspectors, and task groups, and assure equity in the administrative process. The User's Accreditation Advisory Panel shall then report to the NADCAP Council on accreditation, withdrawal of accreditation, or other special actions regarding accreditation activities.

4.6 Appeals Committee:

4.6.1 An ad hoc Appeals Committee shall be appointed and convened as necessary by the NADCAP Council to consider appeals of unresolved issues following a supplier/NADCAP conference. Each Appeals Committee shall be composed of individuals with expertise in assurance programs and in the product, process, or service in question.

4.6.2 The Appeals Committee shall hear and rule on complaints involving withholding or withdrawal of accreditation.

4.6.3 The Appeals Committee may recommend that a complaint be heard by the Steering Committee of the NADCAP Council.

4.7 Audit Committee:

An ad hoc Audit Committee shall be appointed by and report to the NADCAP Council. The Audit Committee shall be composed of individuals recognized for their expertise in accreditation management.

The Audit Committee shall conduct periodic reviews of the entire accreditation program, including NADCAP permanent staff activities. Recommendations for improvement shall be made by the Steering Committee to the NADCAP Council.

4.8 NADCAP Committee Personnel:

4.8.1 NADCAP Council Membership:

4.8.1.1 The Chairperson of the NADCAP Council shall be appointed or reconfirmed annually by the Governing Board. The Chairperson of the NADCAP Council is responsible for guiding and directing all NADCAP accreditation programs.

4.8.1.2 Members of the NADCAP Council as well as the Vice-Chairperson and Secretary, shall be appointed annually by the Chairperson. The Governing Board shall approve these appointments.

4.8.1.3 The NADCAP Council Chairperson shall report at each Governing Board meeting on the status and progress of the NADCAP Council. At each meeting, the Chairperson shall submit the names of NADCAP Council members who have been appointed since the last meeting of the Governing Board.

4.8.1.4 The Chairperson of the NADCAP Council shall review the committee membership at least once annually for the purpose of retaining only those members that actively contribute to the effectiveness of the committee. Members who are absent without alternate representation from three consecutive committee meetings shall be dropped automatically unless the Chairperson determines that other circumstances warrant retention. Other indications of inactivity, such as failure to reply to a majority of the questionnaires and ballots circulated to the members, may also be considered cause for removing a person from membership status. The Chairperson shall write a letter to each member removed from a committee, thanking them for services rendered to the committee and stating that they are being removed from committee membership in accordance with rules of NADCAP.

4.8.1.5 In addition to the requirements contained herein, NADCAP council membership shall be in accordance with the most recent revision of the NADCAP Operating Procedures.

4.8.2 Committee Membership:

4.8.2.1 The membership of the NADCAP Council, committees, panels, and task groups consists of individuals selected based on a need for their particular services or individual qualifications. Membership shall not be conditional on membership in any association or group. In addition to providing technical expertise, NADCAP Council members shall render policy guidance to the working panels and task groups. Membership of working panels and task groups consists of individuals chosen to enhance committee recognition as competent and authoritative in its field.

4.8.2.2 The Chairperson of each committee, subcommittee, panel, and task group shall be appointed or reconfirmed annually by the Chairperson of the NADCAP Council. These appointments are then approved by the Governing Board.

4.8.2.3 Members, Vice-Chairpersons, and Secretaries for each committee, subcommittee, panel, and task group shall be appointed or reconfirmed annually by each respective Chairperson.

4.8.2.4 The Chairperson of each committee, subcommittee, panel, or task group shall review the membership of that body at least once annually for the purpose of retaining only those who actively contribute to the effectiveness of the group. Members who are absent without alternate representation from three consecutive meetings shall be dropped automatically unless the Chairperson determines that other circumstances warrant retention. Other indications of inactivity, such as failure to reply to a majority of the questionnaires and ballots circulated to the members, may also be considered cause for removing a person from membership status. The Chairperson shall write a letter to each member removed from a committee, thanking them for services rendered to the committee and stating that they are being removed from committee membership in accordance with NADCAP rules.

4.8.2.5 In addition to the requirements contained herein, NADCAP committee membership shall be in accordance with the most recent revision of the NADCAP Operating Procedures.

4.8.3 Committee Membership Grades: All committee members are appointed. Membership grades shall be in accordance with the most recent revision of the NADCAP Operating Procedures.

4.9 Documentation:

4.9.1 Documents are prepared by the NADCAP Council to establish an accreditation program for suppliers of a product, process, or service.

4.9.2 Where a corresponding SAE technical committee exists, NADCAP operational documents shall be submitted to SAE for review by the appropriate SAE Technical Committees. NADCAP documents will be published as SAE Aerospace Standards. These documents shall include procedural documents for the operation of NADCAP as well as standards for conducting the audit.

NADCAP audit criteria will be published in a form deemed appropriate by NADCAP Council.

All audit criteria and all revisions of audit criteria shall be submitted to the appropriate Technical Committees of the Aerospace Materials Division and/or Aerospace Council of SAE. All comments resulting from the SAE circulation of audit criteria shall be resolved by the Task Group Chairperson or the document Sponsor. Comments that cannot be resolved shall be submitted to the SAE Technical Committee Chairperson for a decision.

4.9.3 The Council shall delegate the preparation of audit criteria and proposed SAE Standards to the Task Group established for the specific product, process, or service to be supplied. The Chairperson of the Task Group shall assign one of its members to act as Sponsor of the document. The Sponsor of the document is charged with the preparation of the first draft and shall also endeavor to resolve all essential comments resulting from circulation of the document.

4.9.4 Every effort shall be made to obtain the unanimous approval of all members of the NADCAP Council. The Task Group may consider a document approved by one of the following methods:

a. Submitted on a letter ballot to the NADCAP Council, the document shall be considered approved 28 days from the date of circulation of the document provided that (1) at least one-half of all members receiving a ballot have responded and have not waived their vote and (2) approving ballots have been returned by at least three-quarters of the responding committee members. The number of waives associated with a particular vote shall be subtracted from the total voting membership when applying the one-half voting response rule, with the limitation that the total voting membership may not be reduced by more than 20%. Dissenting votes must be resolved or forwarded with the document to the SAE staff.

b. Submitted for final voice vote approval at a meeting of the NADCAP Council, the document shall be considered approved, provided the document has been circulated to all committee members at least two weeks prior to the meeting and provided verbal approval (or written approval by absentees) is received from at least three-quarters of the committee's total members entitled to and not waiving their vote.

4.9.5 This procedure shall be followed by each Task Group prior to submitting the document to the NADCAP Council for consideration. The NADCAP Council shall follow this procedure prior to submitting the document to the SAE staff for its consideration. If all dissenting views cannot be resolved by the Task Group, Sponsor, or NADCAP Council, the dissenting views and related reasons, including those of liaison and consultant members, shall be submitted with the document for consideration by the appropriate SAE Aerospace Council committee(s).

Dissenting views and supporting reasons relating to other than the technical content of the document shall be referred to the NADCAP permanent staff for advice.

4.9.6 Each proposed NADCAP document submitted to SAE for final approval shall be accompanied by supporting information from the NADCAP Council to the effect that reasonable efforts have been made to assure that:

a. All substantially concerned parties who are technically competent have had an opportunity to express their views, and these views have been given due consideration
b. Due consideration has been given to the existence of other comparable standards having national acceptance in the given field
c. There is no unfair discrimination inherent in the proposed standard
d. Assurance has been obtained from those concerned that the proposed standard, when properly used, shall provide a satisfactory level of technical quality in its subject area
e. A consensus exists of those substantially concerned with the provisions of the proposed standard

4.9.7 The technical content of a NADCAP document shall not be altered by an SAE Technical Committee or Aerospace Council without referring the proposed alterations back to the NADCAP Council.

4.10 Meetings:

4.10.1 Time: Meetings are held on a quarterly basis and are subject to call by the Chairperson. The NADCAP permanent staff shall aid the Chairperson in avoiding conflicts of dates or locations.

4.10.2 Notices: Notices of meetings of the NADCAP Council shall be issued at least four weeks prior to the date of the meeting, and when sent to committee members, constitute invitations to send technical representatives to the meeting if they so desire. In addition, the NADCAP permanent staff shall, when requested by the Chairperson, send notices of the meeting to noncommittee personnel who are invited to attend the meeting.

4.10.3 Agenda: The Chairperson shall issue a detailed agenda at least two weeks prior to the meeting. This agenda may be distributed by the Chairperson or by the NADCAP permanent staff.

4.10.4 Voting: Except with respect to the coordination and approval of documents, as covered herein, actions by the NADCAP Council or any of its subgroups shall be in accordance with the most recent revision of the NADCAP Operating Procedures.

4.10.5 Minutes: The Chairperson shall assure that accurate minutes are provided to the NADCAP permanent staff. The minutes of all meetings shall be prepared and issued promptly by a member of the NADCAP permanent staff and shall be subject to confirmation, with corrections if necessary, by written vote or at the following meeting. Copies shall be circulated to all members of NADCAP Council, all individuals present at the meeting, and those who request copies through the NADCAP permanent staff.

In the preparation of minutes, every effort shall be made to avoid significant omissions, errors, and ambiguity. This is particularly important as the minutes shall be distributed to individuals outside the committee. In recording actions on documents, if possible, the reasons for committee action are also to be recorded. The following standard note shall be inserted below the title and date of each set of minutes:

> These minutes are not final until confirmed by the NADCAP Council in writing or by vote at a subsequent meeting. Information herein does not constitute a communication or recommendation from NADCAP Council and shall not be considered as such by any agency.

4.11 Personal Code of Ethics and Conflict of Interest:

4.11.1 It is expected that all NADCAP staff, its auditors, NADCAP Council members, and others involved with the NADCAP activity shall exhibit accepted professional standards of conduct and to uphold and advance the integrity of NADCAP.

4.11.2 Each individual acting for or in the name of NADCAP has an inherent responsibility to uphold their position of trust relative to public interest. It is expected that each individual exercise impartial professional judgment to assure confidence in the integrity of NADCAP by avoiding conflicts of interest in all NADCAP related activities.

4.11.3 When a competing interest has the potential to preclude or impair exercising one's independent professional judgment or unreasonably jeopardize the integrity of the NADCAP activity, that individual should voluntarily disassociate themself from that particular activity, whether it be committee discussion, deliberations, and decision-making or an audit activity.

4.11.4 Any person associated with the NADCAP activity who believes that continued participation by any other person may jeopardize the integrity of NADCAP should bring the matter to the attention of the Chairperson of NADCAP Council for discussion and action by the Steering Committee.

5. ADMINISTRATION AND OPERATION:

5.1 Application for Accreditation:

5.1.1 A supplier desiring accreditation shall obtain an application/agreement form for the particular product, process, or service to be accredited. An application form shall be submitted for each facility or location to be accredited.

5.1.2 Upon receipt of the application/agreement form and the prescribed processing fee, the NADCAP staff shall acknowledge receipt to the supplier and furnish the supplier with a copy of this document, a copy of the audit checklist for the particular commodity to be accredited, a contractual agreement to be executed by the supplier, an invoice for the appropriate audit fee, and additional preparatory instructions.

5.1.3 After receiving a properly executed contractual agreement and the required audit fee, the NADCAP staff shall coordinate arrangements for the audit. Guidance to assist suppliers in applying for, obtaining, and maintaining NADCAP accreditation is depicted in the steps outlined in Figure 2. This sequence is provided only as a guide and suppliers may take appropriate additional or alternative steps.

5.2 The Audit Process:

5.2.1 The audit practices for use in NADCAP activities, excluding preparatory activities of arranging for visits to be on site, are as follows:

5.2.2 Audits shall be scheduled and confirmed with consideration of involved parties and with sufficient notification for appropriate arrangements. Periodic unscheduled audits shall not be confirmed, but performed in coordination with NADCAP staff. Audits shall be conducted during normal business hours without disruption of normal supplier operations.

5.2.3 Audits shall utilize the latest issue of audit criteria approved by NADCAP Council.

5.2.4 Audits shall be performed to technical requirements and criteria using only identified specific documents and the latest interpretations.

5.2.5 Auditing shall be conducted in a professional manner. Audit observers shall not participate in actual auditing.

5.2.6 Audit observations shall be documented and reviewed with the supplier before leaving the audit site. A responsible management official shall be required to sign the audit report at the conclusion of the audit.

5.2.7 Audit observations shall be included in the audit report and considered by the DAAP.

5.2.8 The end result of an audit shall be a report to NADCAP Council, but not to the supplier, as to accreditation. The supplier may be made aware of areas for corrective action, but the NADCAP staff will notify the supplier of the NADCAP Council accreditation decision. The recommendation of the auditor is not binding on NADCAP Council.

5.2.9 Auditors shall identify and document distractions and attempts to impair the effectiveness and efficiency of the audit and its observations.

5.2.10 Auditors shall comply with the NADCAP Code of Ethics and Conflict of Interest requirements as set forth herein.

5.2.11 Auditors are not permitted to provide consulting services or offer recommendations for improvements in supplier activities.

SUPPLIER STEPS TO ACCREDITATION

Determine advantages of NADCAP accreditation

↓

Obtain details on NADCAP and application for accreditation from NADCAP headquarters

↓

Review NADCAP application forms, requirements, criteria and standards

↓

Compare NADCAP requirements to existing systems, practices and customer requirements

↓

Make appropriate revisions in current system to meet NADCAP requirements

↓

Identify possible proprietary information and determine how to handle in application and activities with NADCAP

↓

Make decision to apply for accreditation and submit application and fees to NADCAP with information necessary for review

↓

Review response from NADCAP and advise internal personnel and sub-tier suppliers on needs, requirements and criteria in NADCAP program and reviews

↓

Provide NADCAP with information required for visit including point of contact, local travel, accommodations and similar details

↓

Advise NADCAP of suitable dates for assessment and identify a representative responsible for visit and continuing contact with NADCAP

↓

Schedule availability of appropriate management for presence during the NADCAP visit and for review at completion of visit

↓

(Continues)

FIGURE 2

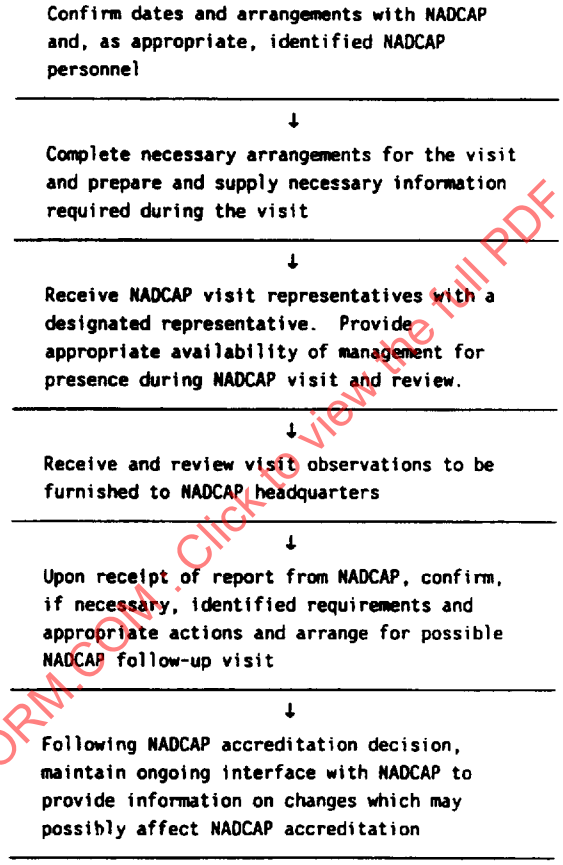

FIGURE 2 (Continued)

5.2.12 Auditors shall be alert to identifying possible improvements in the NADCAP accreditation systems relating to products, processes, or services under accreditation. The auditor shall document observations that result in recommendations to NADCAP Council for improving the accreditation program.

5.3 The Accreditation Process:

5.3.1 Upon completion of an audit, the Auditor shall discuss his observations with supplier management to ensure complete understanding of any nonconformities.

5.3.2 Within five working days of the completion of the audit, as depicted in Figure 3, the auditor shall forward the report to the NADCAP permanent staff for administrative processing.

5.3.3 Within five working days of receipt of this audit report, the NADCAP permanent staff shall furnish a copy of the report summary page to the supplier indicating any need for corrective action.

5.3.4 Within five working days of receipt of the audit report, the supplier shall inform the NADCAP staff by letter of the intended actions with regard to correcting noted nonconformities and the expected time frame for having those corrections in place.

5.3.5 If corrective actions are agreed to by the supplier, the NADCAP staff shall arrange for a follow-up audit, if required, within 20 working days after notification by the supplier that corrective actions are in place.

5.3.6 Should the supplier not agree that there are nonconformities in need of corrective action, due process is provided by the appeals process outlined in 5.4.

5.3.7 The completed audit observations are submitted to the appropriate Task Group for review at its next regularly scheduled quarterly meeting.

5.3.8 The Task Group presents its findings and recommendation on accreditation to the User's Accreditation Advisory Panel which formulates a final report on accreditation to the NADCAP Council.

5.3.9 Within five working days of the NADCAP Council action, the NADCAP staff shall notify the supplier of the decision.

5.4 The Appeals Process:

5.4.1 Should the supplier not agree that there are nonconformities in need of corrective action, the NADCAP staff shall, within five working days of receiving such notification and reasons from the supplier, convene an ad hoc Task Group panel of experts to consider the supplier's objections (Figure 3).

5.4.2 Within five working days of the Task Group panel decision, the NADCAP staff shall notify the supplier of the resulting opinions.

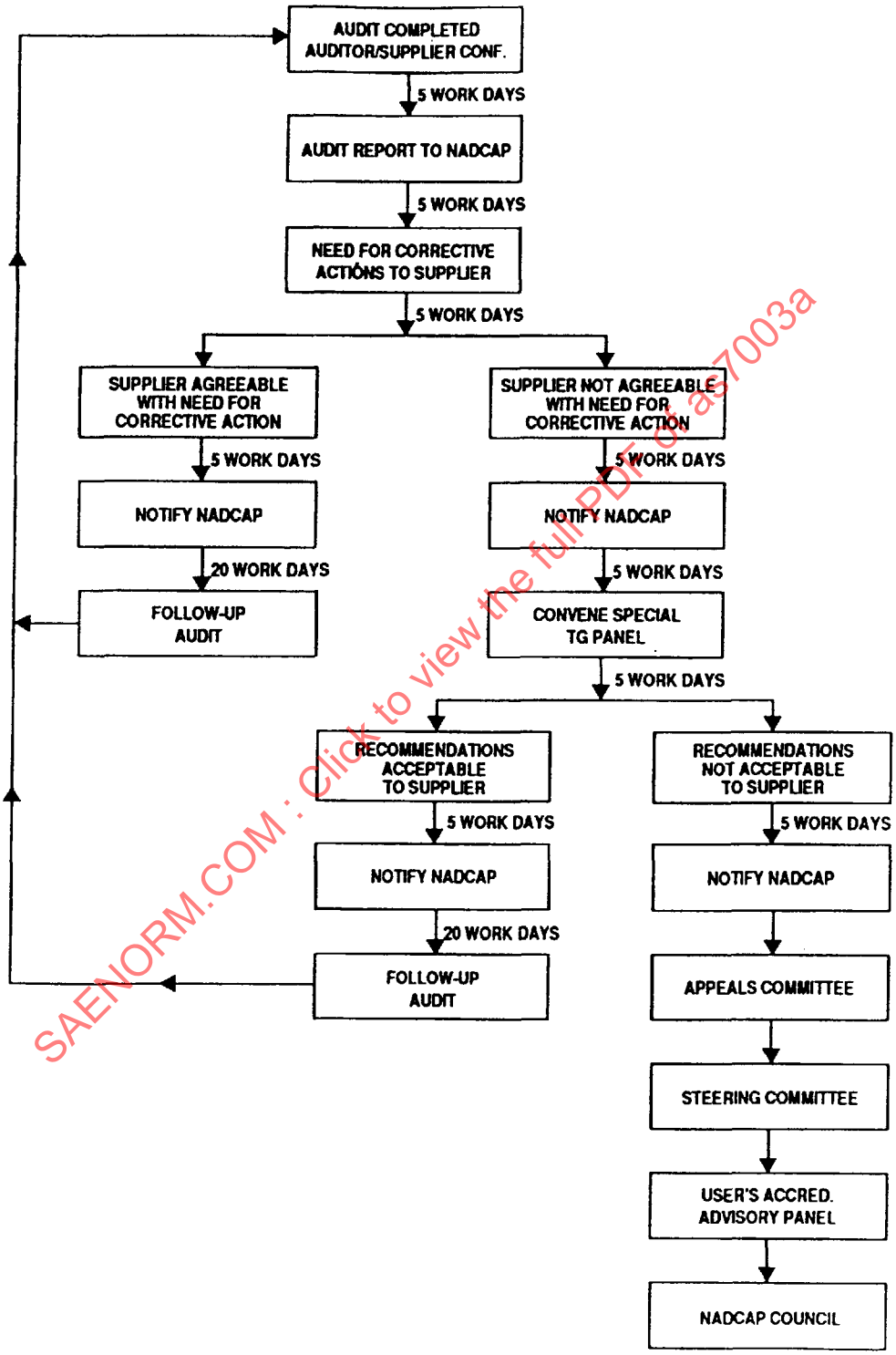

FIGURE 3 - NADCAP Appeals Process

5.4.3 If the situation is resolved at this stage, the NADCAP staff shall provide for a follow-up audit, if required, within 20 working days after notification by the supplier that corrective actions are in place.

5.4.4 Unresolved matters shall be referred to the Appeals Committee for their recommendation through the Steering Committee to the User's Accreditation Advisory Panel regarding a final recommendation on accreditation.

5.4.5 The User's Accreditation Advisory Panel report shall then go to the NADCAP Council.

5.4.6 Within five working days of a NADCAP Council ruling, the NADCAP staff shall notify the supplier of the ruling.

5.5 Accreditation Certificate:

5.5.1 Following approval for accreditation, the NADCAP staff shall notify the supplier and provide the appropriate Accreditation Certificate for the commodity involved.

5.5.2 This certificate shall be signed by an officer of the Governing Board and contain as a minimum:

a. Name of the accreditee
b. Location (address) for which the accreditation is valid
c. Scope of accreditation
d. Effective date of accreditation
e. Term of accreditation

5.6 Continuing Surveillance:

5.6.1 Surveillance practices for use in NADCAP are used in assessing the following:

a. Supplier capability in conjunction with the original audit
b. Supplier continuing capability in conjunction with audits for retention of accreditation
c. Supplier continuing capability through surveillance
d. Supplier submitted items in lots under accreditation programs
e. Special inspections
f. Special investigations

5.6.2 Surveillance shall be performed as requested by NADCAP staff under the following circumstances:

a. As prescribed in accreditation program requirements
b. As prescribed in referenced standards, specifications, or documents
c. As prescribed in special requirements for supplier qualification
d. As contained in special requests by NADCAP staff
e. As determined by inspector to be necessary at time of surveillance visit

5.6.3 Surveillance shall utilize supplier facilities, and as appropriate be combined with ongoing supplier activity where the NADCAP inspector has confidence with inspection capability and findings.

5.6.4 Inspectors shall document necessary information to preserve and improve surveillance and inspector productivity.

5.7 Mark of Conformity:

5.7.1 The mark of conformity is proprietary and is registered with the United States Patent Office under the terms of USCC 1051 et. al [Lanham Act].

5.7.2 The mark of conformity is designed so as to aid in detection of counterfeiting or other forms of misuse.

5.7.3 The mark of conformity shall not be transferred from one product to another.

5.7.4 The mark of conformity shall be directly applied to each unit of production except where physical size of the unit or type of product does not permit, in which case the mark may be applied to the smallest package the unit is marketed in.

5.8 Marking:

5.8.1 Additional marking of accredited products, processes, or services may be appropriate to use in association with the mark of conformity in certain circumstances. Such other markings may be:

a. Name or trademark of NADCAP
b. Name of product classification where such is not completely obvious
c. Identification of the relevant standard(s)

5.9 Publicity by Accreditees:

5.9.1 A supplier has the right to publish that it has been authorized to use the mark of conformity for products, processes, or services for which the accreditation applies.

5.9.2 In every case the supplier shall take sufficient care of his publications and advertising so that no confusion arises between certified and non-certified products, processes, or services to which the accreditation applies.

5.9.3 If the supplier wishes to publish parts of a test report which relates to accredited products, processes, or services, a written agreement must be obtained from NADCAP.

5.10 Confidentiality:

The Governing Board is responsible for ensuring that all NADCAP permanent staff, its auditors, and NADCAP Council members maintain secrecy concerning all confidential or proprietary information with which they become familiar as a result of their exposure to the supplier and/or reports during normal accreditation procedures.

5.11 Misuse of Accreditation Certificate or Mark:

As a part of the program, NADCAP will have surveillance to ensure proper use of the accreditation certificate and logo. Improper or misleading references to the program, the certificate, or the mark that are found in advertisements, brochures, or other publications will be subject to corrective actions that could include legal action and publication of the violation via the QML.

5.12 Suspension of Accreditation:

A supplier may have accreditation suspended for a limited period under the following circumstances:

a. Surveillance reveals a nonconformance to the accreditation requirements that is judged insufficient to warrant withdrawal
b. Misuse of the accreditation certificate or mark that is not suitably retracted and corrected with measures instituted to prevent recurrence
c. Any other violation of the procedures of NADCAP

In the event of suspension of accreditation, NADCAP shall advise the supplier in writing of the corrective actions necessary for the restoration of accreditation.

5.13 Withdrawal or Cancellation of Accreditation:

A supplier may have accreditation withdrawn for the following reasons:

a. Surveillance reveals a nonconformance to the accreditation requirements judged sufficiently serious to warrant withdrawal
b. Failure to pay the prescribed accreditation fee
c. Corrective actions taken for restoration of suspended accreditation are insufficient
d. Any violation of supplier's agreement with NADCAP

Further reasons for cancellation can include:

a. The supplier's wish to discontinue accreditation
b. The process, product, or service no longer being offered by the supplier
c. The supplier is going out of business

5.14 Corrective Action:

5.14.1 NADCAP shall take corrective action in response to:

a. A reported misuse of its registered mark of conformity
b. A situation in which product from an accredited supplier is found to be hazardous

The action that NADCAP chooses to take will depend on a number of factors such as prevailing local and national laws, the nature of the agreement between NADCAP and the party misusing the mark, the seriousness of the misuse, whether the misuse was inadvertent or deliberate, and whether the product is hazardous.

5.14.1 (Continued):

In deciding on what action to take, NADCAP will be guided by a desire to protect the integrity of its mark, to assist persons who may be misled by the misuse of the mark, and to provide equity to competitive users of the mark.

5.14.2 ISO/IEC Guide 27-1983, "Guidelines for corrective action to be taken by a certification body in the event of misuse of its mark of conformity" describes the conditions under which corrective action is taken, the types of corrective action, choice of action against the misuser, timing of corrective action, initiating corrective action with the misuser, and the degree of corrective action to be achieved.

5.15 Self-Audit:

In order to establish and maintain confidence in its competence as an accreditation body, NADCAP has established a system to assess its own conformance to national and international standards.

5.15.1 The NADCAP staff shall be competent for the functions they undertake and shall have the necessary education, training, technical knowledge, and experience.

5.15.2 Information on the academic or other qualifications and experience of each member of the staff should be maintained. Records of training and experience should be kept up-to-date.

5.15.3 The NADCAP staff should have available to them documented instructions pertaining to their duties and responsibilities. These instructions should be kept up-to-date.

5.15.4 Standards on which NADCAP is based, covering products, processes, and services, shall be suitable for use as a basis for accreditation.

5.15.5 Procedures by which NADCAP is operated include provision for:

a. Competent and responsible management and appropriately trained staff
b. Participation on a non-discriminatory basis
c. Both initial and continuing surveillance activities
d. Selection and retention of qualified testing and inspection services
e. Dispute resolution through an impartial appeals mechanism
f. Notification to certificate holders of changes in standards and procedures
g. Confidentiality of proprietary information
h. Maintenance of records
i. Safeguarding use of mark, including legal support
j. Revocation of authorization to use mark.
k. Monitoring procedures regarding periodic inspections, etc.
l. Training program on accreditation for the benefit of industries and staff engaged in accreditation work

5.15.6 The NADCAP requirements for supplier accreditation shall include:

a. Supplier's quality management system and documentation
b. Technically appropriate resources for testing and inspection
c. Complaint records system
d. Provisions against non-conforming products to which the mark is applied
e. Provision for notification of product changes
f. Practices relating to the use of the NADCAP name or mark of conformity

5.15.7 Conformity is indicated by a certificate or mark which:

a. Reflects the registered mark of NADCAP
b. Includes information on product, standards, supplier and other parties, where applicable
c. Presents clearly the extent of accreditation, where applicable

5.15.8 Documentation required by the system includes:

a. Availability of a published NADCAP directory listing products, processes, and services which may be accredited; standards; accredited suppliers; and other parties
b. File of legally binding agreements with accredited suppliers
c. Availability of statement covering operating procedures
d. Availability of annual review or report

5.15.9 NADCAP should have well laid out guidelines from the financial point of view for granting accreditation and for operating the accreditation system.

5.15.10 NADCAP should provide for an independent line of appeal available to suppliers.

6. RECOMMENDED NADCAP AUDIT REQUIREMENTS:

The quality system audit requirements recommended by NADCAP Council for NADCAP accreditation of any process, product, or service are detailed herein. Checklists incorporating these requirements are available in SAE ARP7004 and any associated slash sheets. The audit criteria contained in these documents are designed to meet or exceed the criteria contained in ISO 9001, ISO 9002, and ISO 9003. These audit criteria were developed to assure that all commodities accredited by NADCAP comply with the intent of the ISO 9000 (ASQC 90) standard series documents. Criteria from other quality standards including MIL-STD-1535, MIL-I-45208, MIL-Q-9858, DOD 4120.3M, NASA 5300.4 have also been incorporated into these requirements. Criteria derived from sources other than the ISO 9000 standard series are noted with an asterik (*).

6. (Continued):

When compiling or revising audit criteria for a specific commodity, each Task Group shall assure that all relevant criteria from this section and contained in ARP7004 are included in the commodity-specific audit criteria. This may be accomplished by referencing ARP7004 or by including all relevant criteria in the commodity-specific document. If the Task Group elects to include relevant criteria in the commodity-specific Audit Criteria, the Task Group Chairperson shall provide NADCAP Council with assurances that all relevant criteria have been included and that all requirements relating to these requirements have been addressed. Additional quality requirements may be added at the discretion of NADCAP Council.

6.1 Quality Policy:

Management shall define its policy and objectives for and commitment to quality through the issuance of a quality policy or quality statement.

The quality policy or statement shall be formalized and documented.

*Implementation of the quality policy shall be documented as part of a formal quality plan.

*There shall be provisions for periodic review and revision of the quality plan.

Evidence shall exist that this policy is understood, implemented, and maintained at all levels in the organization.

6.2 Organization: Responsibility and Authority:

The supplier shall define the responsibility, authority, and interrelation of all personnel who manage, perform, and verify work affecting quality.

All positions shall be filled.

Lines of communication and working relationships shall be identified on an organizational chart.

The Quality organization shall be well defined, established, and functioning.

Personnel performing verification activities shall have the organizational freedom and authority to

a. Initiate action to prevent the occurrence of product nonconformity

b. Identify and record any product quality problems

c. Initiate, recommend or provide solutions through designated channels

d. Verify the implementation of solutions

6.2 (Continued):

e. Control further processing, delivery or installation of nonconforming product until the deficiency or unsatisfactory condition has been corrected

f. *Act across all departments

6.3 Organization: Verification Resources and Personnel:

The supplier shall identify in-house verification requirements.

Adequate resources for verification activities shall be provided.

Personnel assigned for verification activities shall be trained.

There shall be verification activities in

a. Inspection
b. Test and monitoring of design
c. Production
d. Installation and servicing processes and/or product

Design reviews and audits of the quality system, processes and/or product shall be carried out by personnel independent of those having direct responsibility for the work being performed.

6.4 Organization: Management Representative and Review:

There shall be an appointed management representative who, irrespective of other responsibilities, has defined authority and responsibility for ensuring that quality systems requirements are implemented, maintained, and in compliance with appropriate quality standards.

Management shall review the quality system at appropriate levels to ensure its continuing stability and effectiveness.

Records of these reviews shall be maintained.

6.5 Quality System:

The supplier shall establish a documented quality system as a means of ensuring that the product conforms to specified requirements.

The quality system shall be endorsed by top management.

The quality system shall include:

a. A documented quality manual
b. Documented quality instructions and/or procedures

There shall be indications of the effective implementation of quality systems, procedures, and instructions.

6.5 (Continued):

The quality manual shall provide for the following:

a. Identification and acquisition of all controls, processes, inspection equipment, fixtures, total production resources, and skills necessary to achieve the required quality

b. Periodic review and updating of quality control, inspection and testing techniques

c. Identification of measurement requirements that exceed capabilities in sufficient time for the capability to be developed

d. Clarification of standards of acceptability for all features and requirements, including those which contain subjective elements

e. Compatibility of the design, production process, installation, inspection, and test procedures, as well as all applicable documentation

*Measurements, responsibilities, time tables and required resources shall be identified.

There shall be provisions for periodic review and revision.

A Quality System Manual and/or other documents including practices, procedures and instructions shall exist that define and outline the quality system.

There shall be procedures to control the distribution, revisions, approvals, and issuance of the Quality System documents.

Quality documents shall be distributed and accessible throughout the operation with appropriate parts located in areas where the work is performed.

*Quality system documents shall show accountability and responsibility.

*The quality system shall foster continuous improvement.

*The quality system shall reference appropriate military standards or specifications.

6.6 Human Resources:

The supplier shall establish procedures for identifying training needs and provide for the training of all personnel performing activities affecting quality.

All personnel who are performing specific assigned tasks shall be qualified on the basis of appropriate education, training, and/or experience as required.

6.6 (Continued):

*A formal, documented training program shall exist.

*Provisions for retraining shall be made.

*Position descriptions, listing individual duties and responsibilities shall be available.

*Employees in key positions shall be trained and qualified.

*Documentation shall be available to support that personnel are trained/qualified to perform their assigned tasks.

*Performance reviews and appraisals shall be scheduled and implemented.

6.7 Communications:

The need for quality shall be emphasized through awareness programs.

There shall be provisions for employees to initiate corrective actions and participate in the quality process.

*There shall be a documented two-way employee communications program in place with responsibility assigned.

*The communications program shall include communications between labor and management.

*Company plans, goals, objectives and customer performance shall be made known to all employees.

*Employee comments and suggestions shall be solicited, reviewed, and acknowledged by the system.

6.8 Work Environment:

*A housekeeping system shall be established that includes a clean up and inspection schedule.

*There shall be a formal safety program in place that has procedures, training provisions, and regular communications.

*Specific individuals and/or functions shall be assigned responsibility for housekeeping or safety.

6.9 Preventive Maintenance:

*There shall be a formal documented preventive maintenance program in place, with statistical predictability developed.

*The maintenance program shall include maintenance schedules, procedures, assigned responsibilities, and a review process.

*Resources shall be allocated to support this program.

6.9 (Continued):

*There shall be a training program for maintenance personnel.

*There shall be contingency plans for unexpected failures or breakdowns.

6.10 Contract Review:

Procedures shall exist for contract review and for the coordination of these activities.

Each contract shall be reviewed to ensure that

a. The requirements are adequately defined and documented
b. Any requirements differing from those in the tender are resolved
c. The supplier has the capability to meet contractual requirements

Records of these contract reviews shall be maintained.

*The Quality organization shall participate in contract review.

6.11 Document Control: Approval and Issue:

Procedures to control all documents and data shall be established and maintained.

Documents shall be reviewed and approved for adequacy by authorized personnel prior to issue.

There shall be procedures to ensure that the pertinent issues of appropriate documents are available at all locations where operations essential to the effective functioning of the quality system are performed.

There shall be procedures to ensure that obsolete documents are promptly removed from all points of issue or use.

6.12 Document Control: Changes/Modifications:

The supplier shall establish and maintain procedures to control all documents and data that relate to all aspects of the quality program.

Changes to documents shall be reviewed and approved by the same functions/organizations that performed the original review or others that have been specifically assigned.

The designated organization shall have access to pertinent background information upon which to base their review and approval.

The nature of the change shall be identified, where practicable, in the document or in appropriate attachments.

A master list or equivalent document control procedure shall be established to identify the current revision of documents in order to preclude the use of nonapplicable documents.

6.12 (Continued):

There shall be procedures to provide for reissue of documents after a practical number of changes have been made.

*There shall be a formal record retention schedule for all documentation.

*A policy shall be established, communicated, and implemented concerning availability and access to records.

6.13 Purchasing: General:

There shall be established procedures to ensure that purchased product conforms to specified requirements.

6.14 Purchasing: Assessment of Subcontractors:

Procedures shall be established and implemented for the selection of suppliers on the basis of their ability to meet subcontractor requirements.

There shall be a formal, written supplier selection and evaluation procedure.

*A summary of in-plant and service quality performance data and quality performance rating shall be used for the selection of sources and corrective action.

Records of acceptable subcontractors shall be established and maintained.

The selection of subcontractors and the type and extent of control exercised by the supplier shall be dependent upon the type of product and, where appropriate, on records of subcontractor's previously demonstrated capability and performance.

Procedures shall be established to ensure that the quality system controls are effective.

Records of the occurrence, frequency, and resolution of nonconformance shall be maintained.

6.15 Purchasing: Data:

Purchasing documents shall contain data clearly describing the product ordered, including, where applicable,

a. The type, class, style, grade or other precise identification

b. The title or other positive identification, and applicable issue of specifications, process drawings, process requirements, inspection instructions and other relevant technical data, including requirements for approval or qualification of product, procedures, process equipment and personnel

6.15 (Continued):

c. The title, number, and issue of the quality system standard to be applied to the commodity

Purchasing documents shall be reviewed for adequacy of specified requirements and approved prior to release.

6.16 Purchasing: Verification of Purchased Product:

Procedures shall be established to afford the purchaser or his representative access to verify at source conformance of purchased products to specified requirements where contractually specified.

Procurement documents shall include provisions for the purchaser or his representative to verify product conformance at the subcontractor's plant as evidence of effective control of quality by the subcontractor.

*Copies of applicable purchase order for materials used for receiving inspection shall be available.

6.17 Purchaser Supplied Product:

Procedures for verification, storage and maintenance of purchaser supplied product shall be established and maintained for incorporation of this product into the production process.

These procedures shall provide for product that is lost, damaged, or otherwise unsuitable for use to be recorded and reported to the purchaser.

6.18 Product Identification and Traceability:

Where appropriate, procedures shall be established and maintained for identifying the product from applicable drawings, specifications or other documents, during all stages of acquisition, production, delivery, and installation.

Individual products or batches shall have a unique identification for traceability when specified as a requirement.

This identification shall be recorded.

Responsibility and accountability for traceability shall be clearly defined.

Controls shall be in effect for traceability of material through all stages from receiving to shipping.

*Test and/or examination samples shall be clearly marked to maintain traceability to the parent product.

6.19 Process Control: General:

*Organizational accountability for process control shall be identified.

Procedures shall be established for approval of processes and equipment, as appropriate.

Process control flow plans or diagrams shall be utilized.

The production processes that directly affect quality shall be identified and measures shall be taken to ensure that these processes are carried out under controlled conditions.

Assurance mechanisms shall exist for critical product characteristics (features) and for control of their related process variables.

Documented work instructions shall be available in areas where they are utilized.

There shall be written standards for the criteria for workmanship.

*Where applicable, process control shall apply to installation as well as production.

Documented work instructions shall define the manner of production, use of suitable production equipment, and compliance with the referenced standards/codes and quality plans.

Processes shall be monitored and controlled to determine the suitability of process and production characteristics during production.

6.20 Process Control: Change Control:

Those responsible for authorization of process changes shall be clearly designated, and where necessary, customer approval shall be sought.

All changes to production tooling, equipment, materials, or processes shall be clearly documented.

Implementation of process change control shall be documented by defined procedures.

Products shall be evaluated after any change to verify that the change instituted had the desired effect on product quality.

Changes in the relationships between process and product characteristics resulting from the change shall be documented and communicated.

