Dear GEAE Supplier:

2003

Please retain this letter for future reference, as it details the current GEAE quality system requirements.

In a letter dated January 25, 2002, which was emailed to all suppliers, GEAE flowed down the AS9100 requirement for quality systems. It required all affected suppliers to be either compliant, or certified, to AS9100 by their next GEAE system due date after April 15, 2002.

GEAE, via this letter, is now requiring all affected suppliers, to be AS9100 CERTIFIED by their next GEAE system due date after January 1, 2004. Non-Certified Compliance to AS9100 will no longer be accepted after that date.

AS9100 is an enhanced quality standard developed by the International Aerospace Quality Group (IAQG). (See background information on the IAQG at http://www.iaqg.sae.org/iaqg/). The Americas version is AS9100A; the European version is EN9100; the Asian (Japanese) standard is JISQ9100. All three of these documents are identical and are based upon the latest version of ISO 9001:2000. NOTE: In the rest of this document, the term “9100” refers to any of the three versions.

GEAE’s document S1000 (Revision E) applies to all GEAE suppliers through standard remark C64. S1000 makes 9100 a requirement for all GEAE suppliers classified as manufacturers. Suppliers who are classified as processors, material suppliers, ground support suppliers, and distributors, have individual methods/requirements for approval of their quality systems. The following pages specify the quality system requirements/methods for each type of supplier. If you are unsure of your company’s GEAE classification, refer to your company’s source profile on the GE Supply Chain Web Center, or contact your PQE.

Suppliers need to start making plans today to comply with GEAE’s quality system requirements.

Mike Buffington, Mgr.
GEAE Sourcing Quality
CERTIFICATION to 9100 is now required for all affected suppliers.

As of January 1, 2004, GEAE will only accept certification to 9100. Certification programs require surveillance audits at least once a year over the life of the certificate, and periodic renewal audits.

Approved CRBs:

GEAE requires periodic independent evaluation, and verification of your company’s conformance to 9100 by an accredited 9100 CRB. CRB stands for Certification/Registration Body, previously referred to as Registrar. Since there are three identical versions of 9100 that have been published by the three IAQG Sectors (Americas, Europe, Asia), there are CRBs that have been approved by each Sector of the IAQG. Links that take you to the 9100 accredited CRBs from each Sector are included on the GEAE Supply Chain Web Center under Quality-Audit Information-List of Registrars. GEAE will only accept evaluations of suppliers’ quality systems from CRBs that are listed as accredited for 9100 on one of the IAQG Sector’s lists. If your current CRB is not accredited, they need to become accredited before performing your quality system audit. GEAE will not accept the audit done by unaccredited CRBs. If you are using a regional office of an accredited CRB, and its address is not specifically listed on the IAQG list of accredited CRBs, there are special rules that apply. The rules for CRBs who have multiple offices throughout the world are listed on the GEAE Supply Chain Web Center under Quality-Audit Information-Multiple Office CRB Policy.

Establishing the specific GEAE system requirements for your facility.

Determine how your facility is classified by GEAE. This may be found on your Source Profile at www.supplychainwebcenter.com under Quality-Source Profile-Site Type. Contact your PQE if you have questions.

After you have verified your facility’s “site type,” refer to Table 1 below, for the specific GEAE system requirements.

<table>
<thead>
<tr>
<th>Type of Supplier</th>
<th>Quality System Requirement</th>
<th>Methods of Obtaining Approval</th>
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<tbody>
<tr>
<td>Manufacturer – definition: a supplier who makes parts complete or assembles parts into a sub assembly (NOTE: includes castings and forgings suppliers)</td>
<td>• 9100 (Americas, Europe, or Asia)</td>
<td>• 9100 – via a CRB accredited for 9100 by one of the IAQG Sector schemes</td>
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<tr>
<td>Processor - definition: a supplier who performs operations or processes on hardware owned by other companies (both special processes and straight machining), but does not make parts complete (see note “b” below for rules concerning independent materials labs)</td>
<td>• 9100 (Americas, Europe, or Asia) or • AC7004</td>
<td>• 9100 – via a CRB accredited for 9100 by one of the IAQG Sector schemes • AC7004 – via NADCAP, done in conjunction with a special process audit, or by GEAE, if supplier’s special processes do not require NADCAP approval.</td>
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<tr>
<td>Material Supplier - definition: a supplier who only supplies materials used in the manufacture of components (see note “a” below for types of materials)</td>
<td>• 9100 (Americas, Europe, or Asia) or • ISO 9001:2000</td>
<td>• 9100 – via a CRB accredited for 9100 by one of the IAQG Sector schemes • ISO 9001:2000 – via a CRB approved for 9100 by one of the IAQG Sector schemes</td>
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<td>Distributor – definition: a supplier who acquires material &amp; parts from other suppliers for delivery to GE or other customers</td>
<td>• 9100 (Americas, Europe, or Asia) or • AS 7103 (Pass through Distributors) • AS7104 (Full Distributors) • AS 9120 (Pass thru Distributors)</td>
<td>• 9100 – via a CRB accredited for 9100 by one of the IAQG Sector schemes or • AS 7103/7104 – via NADCAP • 9120 – via a CRB accredited for 9100 by one of the IAQG Sector schemes</td>
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<tr>
<td>Ground Support Supplier - definition: a GESS supplier that only supplies tooling, test equipment, process equipment, and repair tools required for the development, production, and maintenance of GE aircraft engines.</td>
<td>• ISO 9001:2000 or • System audit by GESS or its representative</td>
<td>• ISO 9001:2000 – via a CRB accredited by an internationally recognized accreditation body. • Via GESS or GEAE personnel, or their designee.</td>
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**Table Notes:**

a.) This category, Material Supplier, includes suppliers of weld wire, braze and thermal spray powders, chemicals, dry film lube, paint, plating materials, bar stock, sheet metal, plus melters and converters, non metallic/composite materials, as examples.

b.) Processors who are independent labs, those with codes AI and AS, and who are not associated with a manufacturer, or a processor, do not have to get an AS9100, or AC 7004 audit. The laboratory approval covers the quality system. Code AC, for captive lab quality systems, gets approved as a part of the approval of their parent company.

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**Detailed explanation of requirements listed in Table 1.**

**“Manufacturers”:**

GEAE will require certification to 9100 in the supplier base on January 1, 2004. After January 1, 2004, all GEAE suppliers classified as “manufacturers” must be certified to 9100 by the next GEAE system due date listed on the company’s Source Profile as described below. GEAE requires periodic verification of certification to 9100. The due date for each verification is listed on your Source Profile, under “04 Systems Audit,” as the “Current Audit Due”. Once a supplier has achieved proof
of certification, via an accredited CRB, the supplier shall send the information on the audit to GEAE. GEAE shall evaluate the results of the audit, and shall establish a next audit due date. By that date, the supplier must again demonstrate certification via an accredited CRB, by submitting the results of their most recent audit. Suppliers must submit the latest audit completed to 9100, whether it is a full audit, or a surveillance audit. The next GEAE due date will not exceed the expiration date on the CRB’s approval certificate. Suppliers need to schedule their audits 3 to 6 months prior to the due date to allow them the opportunity to address any findings and receive approval prior to the due date.

“Processors”:

GEAE requires, as a minimum, the following:

Processors will receive approval to the requirements of AC 7004, either by the National Aerospace Defense and Contractors Accreditation Process (NADCAP), or by a GEAE auditor. Information on NADCAP can be seen on the PRI website: http://www.pri.sae.org/

Processors of special processes in the following categories must receive NADCAP accreditation for their special processes by NADCAP: NDT; Heat Treat; Chemical Processing; Welding; Coatings (Thermal Spray & Diffusion Coatings). The specific processes that require NADCAP approval are listed on the Supply Chain Web Center under Quality-Audit Information-NADCAP Approval. These suppliers must receive a NADCAP AC 7004 quality systems assessment, in addition to their special process approval, on the date identified as 04 systems on their Source Profile, or concurrent with their special process audit. NOTE: you must contact GE (e-mail AS9100DATA@ae.ge.com Fax # 513 786 4335) if the next special process audit is after the 04 due date.

Processors of special processes which are not covered by NADCAP will receive an AC 7004 quality systems audit by the GEAE auditor concurrent with the GEAE performed special process.

GEAE will also accept 9100 certification of “processors” under the same system as described above for “manufacturers.”

“Material Supplier”:

GEAE requires, as a minimum, the following:

Material suppliers will receive approval to the requirements of ISO 9001:2000 by an AS 9100 accredited CRB under the same system as described above for manufacturers.

GEAE also will accept 9100 certification of “material suppliers” under the same system as described above for “manufacturers.”

“Distributors”:

GEAE requires, as a minimum, the following:

Distributors will receive approval to the requirements of AC 7103, or AS 7104, by the National Aerospace Defense and Contractors Accreditation Process (NADCAP), or may also receive an approval for AS 9120 from accredited 9100 CRBs. Information on NADCAP can be seen on the PRI website: http://www.pri.sae.org/
Distributors do not need to send information into GEAE when assessments are performed by NADCAP. Information from CRBs (9100) must be sent in as described above.

GEAE will also accept 9100 certification of “distributors” under the same system as described above for “manufacturers.”

“Ground Support Suppliers”:

GESS will accept ISO 9001:2000 of “ground support suppliers” by a CRB accredited by an internationally recognized accreditation body.

System approval may also be obtained via an on-site audit by GESS or GEAE personnel, or their designee.
APPENDIX I

This is a description of the Contractual Requirements for suppliers in the completion of system assessments via CRBs (formerly Registrars). Suppliers may use this document directly on their contracts with CRBs if they wish. It correctly describes the requirements that must be followed for GEAE to accept your CRB’s proof of certification to AS 9100.

The supplier shall:

1.) Contact CRBs who are listed in the links on IAQG Sector webpages (the URL is http://www.iaqg.sae.org/iaqg/audit_information/registrars.htm) as accredited to perform 9100 assessments.

2.) Schedule their AS 9100 assessment in advance to allow adequate time to address findings; investigate root cause of findings; develop an effective corrective action plan; implement corrective actions; and have findings closed by CRB, such that they still can meet the GEAE due date for their systems approval. NOTE: this can take 3 - 4 months after the audit is completed.

3.) Ensure that the CRB meets the requirements as listed in Appendix II (below) in completion of the AS 9100 assessment.

4.) Send all relevant data to GEAE upon receiving certification. You are to submit the following information to GEAE as evidence of conformance to GEAE’s requirement:
   - Copy of CRBs certification to 9100
   - Copy of all findings from the 9100 audit that have been closed out by the CRB.
   - All other paperwork (audit report, etc.) concerning the results of the 9100 audit.

This information needs to be sent to:
   Email AS9100DATA@ae.ge.com or
   Fax 513-786-4335, 30 pages max per transmission. (NOTE: This is a digital fax, which will generate a digital copy of your data)

GEAE will review this information to determine conformance to our requirements and will inform the supplier when the next quality systems due date is.

5.) Comply with future GEAE requirements to obtain additional quality systems assessments. Refer to next “04 Systems Audit Current Audit Due” date on your source profile.

6.) Provide input to GEAE on CRBs’ performance when contacted by GEAE.

7.) Allow GEAE, and/or the Registrar Accreditation Board (RAB) to observe CRBs during audits at your facility. This is a key element in GEAE’s oversight of CRBs.

8.) Allow CRB to send data on audit results to IAQG database per applicable section of the Sector’s controlling document (in the Americas it is AIR 5359 Appendix A). NOTE: the CRB must get this permission in writing from the supplier.
APPENDIX II

This is a description of the Contractual Requirements for CRBs in the completion of AS 9100 assessments. Suppliers may use this document directly on their contracts with CRBs if they wish. It correctly describes the requirements that must be followed for GEAE to accept the CRB’s proof of conformance to AS 9100.

a) CRBs must use approved auditors in accordance with the certification standards of one of the three 9100 approval schemes of the IAQG Sectors. CRBs must operate in accordance to SAE AIR 5359A (Americas), or the applicable document in their IAQG Sector.
b) CRBs must use one of the three 9100 published checklists for 9100 audits.
c) CRB must follow issued IAF guidelines for the length of the audit. Additional time will be required to complete the 9100 complete audit.
d) CRB must rate all findings Major or Minor (or observation) in accordance with ISO guidelines.
e) CRB must evaluate all supplier responses to findings to ensure a good root cause/corrective action.
f) CRB must verify completion of corrective actions as per ISO guidelines and must note closure of acceptable answers on finding document.
g) CRB must send/issue the following to the supplier:

- 9100 Certificate to supplier once all findings are closed out.
- An audit report which identifies the total number of findings to 9100
- Copies of all closed out findings

h) CRBs who re-issue suppliers’ 9100 approval after the last one has expired based upon surveillance must assure that all elements of 9100 have been re-evaluated through surveillance since the last 9100 approval. This statement must accompany the re-approval document for 9100. The maximum interval for surveillance audits is one year.
i) CRB must send all relevant data (including checklist, findings, responses, etc.) to supplier. CRB must allow supplier to share all data with any of the supplier’s customers. CRB must secure the supplier’s written agreement to supply data as per AIR 5359A (or other Sector scheme) to IAQG Database.
j) CRB must allow GEAE, and/or the Registrar Accreditation Board (RAB) to oversee their audit process at suppliers as requested by GEAE or the RAB.
k) Many CRBs have offices (satellites) around the world - in many cases these offices (satellites) are not listed as accredited by the various Accreditation Bodies (see a. above). If the satellite office performs the 9100 audit, the audit will be acceptable to GEAE if the accredited (listed) CRB exhibits control over the audit done by the satellite. This must be demonstrated by the listed CRB office: reviewing the documentation of the audit; issuing final approval & issuing the certificate with the appropriate Accreditation body Mark showing that it came from the Accreditation body approved facility. The accredited (listed) CRB office shall signify the completion of these steps by the issuance of the certificate from their office.