



PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

News media information 202 / 418-0500
Fax-On-Demand 202 / 418-2830
Internet: <http://www.fcc.gov>
<ftp.fcc.gov>
TTY 202 / 418-2555

DA 99-1640
Released: August 17, 1999

FCC Provides Further Information on the Accreditation Requirements for Telecommunication Certification Bodies GEN Docket 98-68

In December 1998, the Commission adopted new rules to streamline its equipment authorization requirements by allowing Telecommunications Certification Bodies (TCBs) to certify equipment under Parts 2 and 68 of the Commission's Rules. This notice provides further information on the accreditation requirements for TCBs.

The requirements for TCBs were specified in the Commission's Report and Order (R&O) in GEN Docket 98-68 (FCC 98-338), adopted on December 17, 1998, http://www.fcc.gov/Engineering_Technology/Orders/1998/fcc98338.pdf. TCBs are required to be accredited by the National Institute of Standards and Technology (NIST), or NIST may allow, in accordance with its procedures, other appropriate qualified accrediting bodies to accredit TCBs.

TCBs are to be accredited in accordance with ISO/IEC Guide 65 (1996), General Requirements for Bodies Operating Product Certification Systems and the appropriate FCC Rules. The staff of the FCC's Office of Engineering and Technology (OET) and Common Carrier Bureau (CCB) have worked closely with NIST, equipment manufacturers and test laboratories to develop an accreditation process that is consistent with the requirements of ISO/IEC Guide 65 and the FCC Rules.

Accreditation will be available for several different scopes of equipment subject to certification. TCBs can choose to obtain accreditation for any or all of the available scopes, depending on their needs. The scopes are defined in the attachment to this notice. The attachment also specifies the capabilities that must be demonstrated to obtain accreditation within each scope. Finally, the attachment clarifies certain aspects of the TCB requirements in the Rules.

NIST will announce the administrative details for applying for TCB accreditation in the near future. The Commission will continue working with NIST to assist in the accreditation of TCBs.

TCBs located outside the United States may certify equipment in accordance with the terms of an effective bilateral or multilateral mutual recognition agreement. Accreditation of TCBs outside the United States shall be consistent with this public notice and the attachment to this notice.

For further information about this notice, please contact Art Wall of the Office of Engineering and Technology at: (202) 418-2442, email: awall@fcc.gov, or Bill Howden of the Common Carrier Bureau at (202) 418-2343, email: whowden@fcc.gov, TTY: (202) 418-0484.

Attachment

Attachment

PROCEDURES FOR ACCREDITING A TELECOMMUNICATION CERTIFICATION BODY

I. TCB Designation Process and Requirements

The process for designation of TCBs and requirements that must be met are contained in the FCC rules. See, in particular, 47 CFR Sections 2.960, 2.962, 68.160 and 68.162.

II. Accreditation Requirements

TCBs shall be capable of testing equipment to a core set of equipment tests for each scope of accreditation, as stated below. TCBs must be accredited in accordance with the general guidelines in ISO/IEC Guide 65 (1996), *General requirements for bodies operating certification systems*. To ensure that it is capable of performing the tests within the scope of accreditation, the TCB must also be accredited to ISO/IEC Guide 25, *General requirements for the competence of calibration and testing laboratories*. Both ISO/IEC Guides are available through the American National Standards Institute, Customer Service, 11 West 42nd Street, New York, NY – 10036, telephone 212-642-4900, facsimile 212-302-1286, or e-mail to jrichard@ansi.org.

III. Accreditation Scopes

TCBs will be accredited to certify one or more of the following scopes of equipment:

A. Unlicensed Radio Frequency Devices

1. Low power transmitters operating on frequencies below 1 GHz (with the exception of spread spectrum devices), emergency alert systems, unintentional radiators (e.g., personal computers and associated peripherals and TV Interface Devices) and consumer ISM devices subject to certification (e.g., microwave ovens, RF lighting and other consumer ISM devices)
2. Low power transmitters operating on frequencies above 1 GHz, with the exception of spread spectrum devices
3. Unlicensed Personal Communication System (PCS) devices
4. Unlicensed National Information Infrastructure (UNII) devices and low power transmitters using spread spectrum techniques

B. Licensed Radio Service Equipment

1. Personal Mobile Radio Services in 47 CFR Parts 22 (cellular), 24, 25, 26, and 27
2. General Mobile Radio Services in the following 47 CFR Parts 22 (non-cellular), 74, 90, 95 and 97
3. Maritime and Aviation Radio Services in 47 CFR Parts 80 and 87

4. Microwave Radio Services in 47 CFR Parts 21, 74 and 101

C. Telephone Terminal Equipment (47 CFR Part 68)

1. Telephone terminal equipment in 47 CFR Part 68

Notes for Accreditation Scopes A, B and C:

(1) The TCB is not required to have the capability to perform each required test, but must have the minimum testing capabilities specified below for each type of equipment.

(2) The measurement procedures for licensed PCS devices and UNII devices and the procedures for determining RF exposure for hand-held transmitters have not been published. Accreditation and designation of a TCB to certify such equipment will be withheld until the appropriate procedures have been published.

IV. Specific Capabilities: Unlicensed Radio Frequency Devices

The TCB must:

- A. Possess a thorough knowledge of FCC Rules contained in 47 CFR Parts 2, 11, 15 & 18, including latest interpretations thereof;
- B. Possess a thorough knowledge of all appropriate procedures (e.g., ANSI C63.4 - 1992, FCC MP-5, etc.) for testing and evaluating radio frequency devices;
- C. Possess a thorough understanding of the FCC equipment authorization program and specifically, 47 CFR Part 2, Subparts I, J and K;
- D. Have copies of all applicable FCC Rules and test procedures and be able to demonstrate an ability to obtain recent rules and interpretations;
- E. Be capable of evaluating the application and results of each of the following types of tests that are appropriate for the scope of accreditation:
 1. Radiated emission tests from 9 kHz to 1 GHz;
 2. Radiated emission tests from 1 GHz to 231 GHz (*for devices having emissions on frequencies above 1 GHz*);
 3. Line conducted emission tests from 9 kHz to 30 MHz;
 4. Power density measurements;
 5. RF bandwidth measurements;
 6. Frequency stability measurements;
 7. RF exposure measurements and computations, as specified in FCC OET Bulletin 65 -- Supplement C and 47 CFR §§ 2.1091 and 2.1093 (*see note 3 in Section I, above*);
 8. Site attenuation measurements per ANSI C63.4-1992;
 9. RF output power measurements, per 47 CFR § 15.247 and 47 CFR Part 15, Subparts

- D and E;
 - 10. RF antenna conducted measurements;
 - 11. Processing gain for direct sequence spread spectrum systems (47 CFR § 15.247);
 - 12. UPCS monitoring tests (47 CFR Part 15, subpart D).
- F. Be capable of evaluating test reports and associated documentation to determine the compliance of devices operating under the general provisions of Part 15, as well as the following specific devices that are appropriate for the scope of accreditation:
- 1. Swept-frequency anti-pilferage systems (47 CFR § 15.223);
 - 2. Low power transmitters, e.g. R/C toys and baby monitors (47 CFR §§ 15.227 and 15.235)
 - 3. Remote control and security systems (47 CFR § 15.231);
 - 4. Cordless telephones (47 CFR § 15.233);
 - 5. Frequency-hopping & direct-sequence spread spectrum systems (47 CFR § 15.247);
 - 6. Cordless telephones (47 CFR § 15.249)
 - 7. Field disturbance sensors, intrusion detectors (47 CFR § 15.245);
 - 8. Biomedical telemetry devices (47 CFR §§ 15.241 and 15.242);
 - 9. Auditory assistance devices (47 CFR § 15.237);
 - 10. Automatic vehicle identification systems (47 CFR § 15.251);
 - 11. Vehicle radar systems (47 CFR § 15.253);
 - 12. Unlicensed Personal Communication Systems (47 CFR Part 15, subpart D);
 - 13. Unlicensed NII devices (47 CFR Part 15, Subpart E);
- G. Be capable of performing the following core set of tests that are within the scope of accreditation (*see note 1 in Section III, above*):
- 1. Radiated emission tests (9 kHz to 1 GHz);
 - 2. Radiated emission tests above 1 GHz that are appropriate for the scope of accreditation;
 - 3. Line conducted emission tests (9 kHz to 30 MHz);
 - 4. Power density measurements;
 - 5. RF bandwidth measurements;
 - 6. Frequency stability measurements (-20°C to +50°C);
 - 7. Site attenuation measurements per ANSI C63.4-1992 (30 MHz to 1000 MHz);
 - 8. RF output power measurements, per 47 CFR § 15.247 and Subparts D & E of Part 15; (*see note 3 in Section I, above*)
 - 9. RF antenna conducted measurements;
- H. Have detailed knowledge and equipment for electronic filing and access to the FCC Internet database. The grants of certification issued by the TCB must include the same information (e.g., grantee codes, note codes, FCC ID, equipment classifications, rules parts, etc.) as the grants issued by the FCC. The information for each grant can be obtained from the FCC database.

V. Specific Capabilities: Licensed Radio Service Equipment

The TCB must:

- A. Possess a thorough knowledge of FCC Rules contained in 47 CFR Parts 2, 22, 24, 25, 26, 27, 74, 80, 87, 90, 95, 97 and 101, including latest interpretations thereof;
- B. Possess a thorough knowledge of all appropriate standards and procedures (e.g., 47 CFR Part 2, EIA/TIA Standard 603, etc.) for testing and evaluating licensed radio equipment;
- C. Possess a thorough understanding of the FCC equipment authorization program covered in 47 CFR Part 2, Subparts I, J and K, including the required government coordination with other U.S. government agencies (e.g., FAA and USCG);
- D. Have copies of all applicable FCC rules and test procedures and be able to obtain recent rules and interpretations;
- E. Be capable of evaluating each of the following types of tests within the scope of accreditation:
 - 1. RF power output measurements (47 CFR § 2.1046);
 - 2. Modulation characteristics measurements (47 CFR § 2.1047);
 - 3. Occupied bandwidth measurements (47 CFR § 2.1049);
 - 4. Spurious emissions at antenna terminals (47 CFR § 2.1051);
 - 5. Field strength of spurious radiation measurements (47 CFR § 2.1053);
 - 6. Frequency stability measurements (47 CFR § 2.1055);
 - 7. RF exposure measurements and computations, as specified in FCC OET Bulletin 65 -- Supplement C and 47 CFR §§ 2.1091 and 2.1093 (*see note 3, above*);
- F. Be capable of evaluating test reports and associated documentation to determine the compliance of the following specific devices within the scope of accreditation:
 - 1. Cellular services (47 CFR Part 22);
 - 2. Licensed personal communication service (47 CFR Part 24);
 - 3. Satellite communication services – GMPCS (47 CFR Part 25);
 - 4. Wireless communication services – WCS (47 CFR Parts 26 & 27);
 - 5. Radio & auxiliary broadcast services (47 CFR Part 74);
 - 6. Aviation radio services (47 CFR Part 87);
 - 7. Maritime radio services (47 CFR Part 80);
 - 8. Private land mobile radio services (47 CFR Part 90);
 - 9. Fixed microwave radio services (47 CFR Part 101);
 - 10. Personal radio services (47 CFR Part 95);
 - 11. Amateur amplifiers under 47 CFR Part 97);
- G. Be capable of performing the following core set of tests that are within the scope of accreditation (*see note 1 in Section I, above*):
 - 1. RF conducted and radiated power output measurements;
 - 2. Modulation characteristics measurements;
 - 3. Occupied bandwidth measurements;
 - 4. Spurious emissions at antenna terminals;
 - 5. Field strength measurements (9 kHz to 40 GHz) that are appropriate for the scope of accreditation;
 - 6. Frequency stability measurements (-30°C to +50°C);

- H. Have detailed knowledge and equipment for electronic filing and access to the FCC Internet database. (The grants of certification must include the same information (e.g., grantee codes, note codes, FCC ID, equipment classifications, rules parts, etc.) as the grants issued by the FCC. The information for each grant can be obtained from the FCC database.)

VI. Specific Capabilities: Telephone Terminal Equipment

The TCB must:

- A. Possess a thorough knowledge of 47 CFR Part 68, including latest interpretations thereof.
- B. Possess a thorough understanding of all appropriate procedures (e.g., TIA/TSB 31B) for testing and evaluating telephone terminal equipment.
- C. Possess a thorough understanding of the FCC equipment authorization program and specifically FCC Form 730 Application Guide.
- D. Have copies of all applicable FCC Rules and test procedures and be able to obtain recent rules and interpretations;
- E. Possess an ability to evaluate each of the following types of tests:
 - 1. Environmental simulation measurements. Specifically, demonstrate ability to perform Type A and Type B surge tests. (47 CFR § 68.302)
 - 2. Leakage current measurements. (47 CFR § 68.304)
 - 3. Hazardous voltage measurements. (47 CFR § 68.306)
 - 4. Analog signal power measurements. (47 CFR § 68.308)
 - 5. Digital signal power measurements. (47 CFR § 68.308)
 - 6. Transverse balance measurements. (47 CFR § 68.310)
 - 7. On-hook impedance measurements. (47 CFR § 68.312)
 - 8. Billing protection measurements. (47 CFR § 68.314)
 - 9. Hearing aid compatibility measurements. Specifically demonstrate an understanding of magnetic field strength measurements (ANSI/EIA/TIA-RS-504) and acoustics measurements (ANSI/EIA/TIA-579-1991 and ANSI/EIA/TIA-470-A-1987)) (47 CFR §§ 68.316 and 68.317)
 - 10. Additional Limitations. (47 CFR § 68.318)
- F. Be capable of evaluating test reports and associated documentation to determine the compliance of devices operating under the general provisions of Part 68, as well as the following specific devices:
 - 1. Data Modem with a loop-start interfaces.
 - 2. Single line telephone set with a loop-start interface.
 - 3. PBX with loop-start, ground-start, reverse battery, E&M tie trunk, and OPS interfaces.
 - 4. PBX with digital trunks that require decoding encoded analog signals. (T-1, ISDN Basic Rate, and ISDN Primary Rate Interfaces)
 - 5. CSU with a T-1 (1.544 Mbps) interface.

6. Digital data modem with sub-rate digital interfaces.
- G. Be capable of performing the following core set of tests that are within the scope of accreditation (*see note 1 in Section I, above*):
1. Environmental simulation measurements. Specifically demonstrate ability to perform Type A and Type B surge tests.
 2. Leakage current measurements.
 3. Hazardous voltage measurements.
 4. Analog signal power measurements.
 5. Digital signal power measurements.
 6. Transverse balance measurements.
 7. On-hook impedance measurements.
 8. Billing protection measurements.
 9. Hearing aid compatibility measurements. Specifically demonstrate an understanding of magnetic field strength measurements (ANSI/EIA/TIA-RS-504) and acoustics measurements (ANSI/EIA/TIA-579-1991 and ANSI/EIA/TIA-470-A-1987))
 10. Automatic redialing.
- H. Have detailed knowledge for conveying information to FCC required by FCC procedures for telephone terminal equipment.

VII. Clarification of TCB Requirements

- A. **TCB acceptance of test data and sub-contracting.** A TCB may accept test data from a manufacturer or independent laboratory for purposes of equipment certification. The TCB shall review the test data and must be confident that the product meets the relevant requirements before it approves product. Alternatively, the TCB may perform the required tests itself on a contract basis with the applicant for certification of the product. In such situations, the TCB may subcontract a portion of, or all, the required testing to an independent laboratory. In such cases, the TCB is responsible for all tests performed by the subcontractor and must maintain appropriate oversight of the subcontractor to ensure reliability of the test results. A subcontractor that is accredited to ISO/IEC Guide 25 should not normally require any additional accreditation by the TCB.
- B. **TCB auditing requirements.** In the Report and Order, the Commission noted that ISO/IEC Guide 65 requires a certification body to perform surveillance activities. The Commission did not specify a number or percentage of products that a TCB should test to satisfy this guideline, since our experience has shown that different levels of scrutiny are required for different products to ensure compliance. We will rely on TCBs to use judgment in complying with this guideline. In general, a TCB is expected to test at least several samples each year for the various types of products it certified. The TCB may perform other types of surveillance, provided such activities are no more burdensome than type testing on the grantee of certification. This will provide TCBs some flexibility in determining continuing compliance of products that they certify. If a product fails to comply with the FCC Rules during the auditing process, the TCB shall immediately notify the grantee and the FCC. A follow-up report shall also be provided to the FCC within 30 days of the

action taken by the grantee to correct the situation. The TCB shall also submit to the FCC within 30 days of such a request, reports of surveillance activities carried out by the TCB. A TCB may be also be required to test a product certified by the TCB and report its findings to the FCC within 30 days to support compliance investigations.

- C. **Records retention.** The TCB shall retain for five years all documentation associated with the approval of a product subject to certification by the Commission.
- D. **Multiple Sites.** A TCB may be accredited for multiple test sites in accordance with guidelines established by NIST.