Operation and Marketing of RF Devices Prior to Equipment Authorization

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Why are there pre-authorization limits?

- Equipment authorization rules ensure that RF devices comply with FCC rules and reduce risk of interference
- Permitting some operation and marketing of RF devices prior to equipment authorization advances development of new technology

- **Goal:** Balance the benefits of providing opportunities for manufacturers of RF devices to develop, test and demonstrate their products AND the potential costs of harmful interference to other authorized spectrum users if non-compliant equipment enters into commerce

General Rule - Operations: Section 2.805

- An RF device may not be operated prior to equipment authorization, except under these circumstances:
  - Part 5 Experimental Radio Service license already granted
  - Experimentation or compliance testing within anechoic chamber or Faraday cage
  - Device is designed to operate under Parts 15, 18 or 95, subject to certain restrictions
  - Special circumstances for devices designed to operate under rules other than Parts 15, 18 or 95

Section 2.805: Parts 15, 18 & 95 Devices

- Operation prior to equipment authorization allowed provided:
  - Device complies with existing rules, etc., AND
  - Device will be inoperable or retrieved at conclusion or operation, AND
  - Purpose of operation is either
    - Demonstration at trade show or exhibition, OR
    - Evaluation of performance and customer acceptability (developmental, design or pre-production stages)
      - Permitted for early development of devices
      - Short duration operation permitted at non-manufacturer location
  - Part 5 Experimental License not required under these conditions

Section 2.805: Non-Parts 15, 18 & 95 Devices

- Operation of any device prior to equipment authorization allowed under two categories
- Category 1: Under authority of a service licensee
  - Device complies with existing FCC rules, etc. AND
    - Service licensee grants permission, operation is only in their authorized frequency bands, and service licensee remains responsible for operation meeting the terms and conditions of its license, OR
    - Special temporary authority
  - Devices will be inoperable or retrieved at conclusion of operation
  - Short-term, limited operation, e.g., testing or demonstration
  - Part 5 Experimental License not required under these conditions

Section 2.805: Non-Parts 15, 18 & 95 Devices

- Category 2: Low power demonstrations
  - Device operates at or below Section 15.209 (a) limits, AND
  - Purpose of operation is either
    - Demonstration at trade show or exhibition, OR
    - Evaluation of performance and customer acceptability (developmental, design or pre-production stages)
      - Permitted for early development of devices
      - Short duration operation permitted at non-manufacturer location
  - Devices will be inoperable or retrieved at conclusion of operation
  - Part 5 Experimental License not required under these conditions

Part 5 Experimental Licenses

- RF device can be operated prior to equipment authorization when RF spectrum is used for experimentation, product development and market trials.
  - Device under test does not need to comply with existing FCC rules, etc.

- Scope of activity covered includes:
  - Research and experimentation
  - Developing new radio techniques, equipment, operational or engineering data
  - Field strength surveys
  - Testing devices for regulatory approval
  - Many other uses

Part 5—Types of Experimental Licenses

- Conventional: One or more closely-related experiments or projects at specified locations and frequencies
  - Used for basic research and experimentation and includes other specific types of operation
    - Product development trials—to evaluate product performance at conceptual, developmental and design stages, under expected use conditions
    - Market trials—to evaluate specific product performance and customer acceptability prior to production stage, under expected use conditions to evaluate actual performance and effectiveness
    - Special Temporary Authority
      - » For operations lasting 180 days or less

Part 5—Types of Experimental Licenses (cont'd)

- Program: Covers ongoing program of research and experimentation under a single authorization,
  - Qualified institutions only, e.g., universities, research labs, RF equipment manufacturers
  - Experiments conducted at facility or location under licensee's control, and
  - Public disclosure of each experiment prior to start

- Compliance testing: FCC-recognized test labs

- Medical testing: For testing in clinical trials medical devices that use RF wireless technology for diagnosis, treatment or patient monitoring
  - Limited to devices under Parts 15, 18 and 95
  - Qualified health care institutions and medical device manufacturers

General Rule - Marketing: Section 2.803

- No person may market an RF device unless the device has been authorized under the FCC's Part 2 Subpart J rules (certification, verification, Declaration of Conformity)
- Marketing defined
  - sale or lease
  - offering for sale or lease (including advertising)
  - importation
  - shipment
  - distribution for purpose of selling/leasing/offering for sale

Section 2.803 Exceptions: Marketing

- Limited marketing permitting for devices that could be authorized under current FCC rules without getting a Part 5 license
  - Conditional sales contracts (manufacturers and wholesalers/retailers)
  - Offered for sale to business/commercial/industrial/scientific/medical
  - Advertised or displayed at trade shows/exhibitions
  - Evaluation kits sales to product and software developers, system integrators

Section 2.803 Exception: Importation

Section 2.1204 related Exception:

- Complies with FCC technical administrative regulations
- Testing and evaluation for FCC compliance, product development, or marketing suitability—not for sale; up to 4,000 units
- Demonstration at trade shows, not for sale; up to 200 units for licensed services, all others up to 10 units
- Import solely for export; device generally not marketed or offered for sale in the U.S.
- Exclusive use of U.S. Government
- Personal use, not for sale (up to 3 units)
- For repair, not for sale
- Implanted medical devices

Part 5: Limited Marketing

- Part 5 Experimental License for market trials
  - Limited marketing permitted under specific rules
  - Equipment nonfunctioning or reclaimed at end of trial
- All RF devices being studied are authorized under Part 5 license
  - Includes devices under Parts 15, 18 and 95
  - Devices comply with current FCC rules or waivers
- Limited marketing permitted
  - Part 5 licensee owns transmitting and/or receiving equipment
  - Licensees can sell equipment to each other
  - Licensees may lease equipment to trial participants, e.g., end user
  - Only minimum number of devices necessary to conduct trial permitted
- Trial devices are rendered inoperable or retrieved by licensee at conclusion

Marketing: Section 2.803 v. Part 5 Market Trial

Section 2.803

- Equipment could be authorized under existing FCC rules
- Conditional sales: manufacturer to wholesaler/retailer
- Offers for sale: commercial, industrial, etc. entities
- Advertise or display at trade shows, etc.
- Special labels required

Part 5 Market Trial

- Equipment could be authorized under existing FCC rules
- Some cost-recovery permitted
- Multiple licensees conducting trial can sell equipment to each other
- Licensees may lease equipment to end users
- Render equipment inoperable or retrieved

Summary

- FCC provides flexible rules and options to meet the many and varying needs of industry to develop, test and market products to reduce the time to get new products to the American public
- Contact FCC to determine if Experimental License is needed for a specific market evaluation activity
  - Email: elb@fcc.gov

Questions and Answers

Thanks!