

Basement, Washington, DC 20460. Comments may be submitted electronically to *ow-docket@epamail.epa.gov*. Electronic comments must be submitted as an ASCII, WP6.1, or WP8 file avoiding the use of special characters and any form of encryption. Electronic comments must be identified by the docket number W-98-23. Comments and data will also be accepted on disks in WP6.1, WP8, or ASCII format. Electronic comments on this action may be filed online at many Federal Depository libraries.

Please submit a copy of any references cited in your comments. Facsimiles (faxes) cannot be accepted. EPA would appreciate one original and three copies of your comments and enclosures (including any references). Commenters who would like EPA to acknowledge receipt of their comments should include a self-addressed, stamped envelope.

The proposed rule and supporting documents, including public comments, are available for review in the Water Docket at the address listed previously. For information on how to access Docket materials, please call (202) 260-3027 between 9 a.m. and 4:00 p.m. Eastern Time, Monday through Friday.

**FOR FURTHER INFORMATION CONTACT:** For technical inquiries regarding the proposed regulations, contact the Office of Ground Water and Drinking Water, U.S. Environmental Protection Agency (mailcode 4607), 1200 Pennsylvania Ave., NW., Washington DC, 20460. Phone: (202) 260-3309. For general information, contact the Safe Drinking Water Hotline, phone (800) 426-4791. The Safe Drinking Water Hotline is open Monday through Friday, excluding Federal holidays, from 9:00 a.m. to 5:30 p.m. Eastern Time.

**SUPPLEMENTARY INFORMATION:** On May 10, 2000 EPA published the proposed GWR, 40 CFR parts 141 and 142 (65 FR 30194). The May 10, 2000 notice provided a deadline of 60 days from the date of publication for receipt of public comments. Since the publication date, EPA has received requests to extend the comment period to allow sufficient time for all parties potentially impacted by this proposal to consider and provide comprehensive comments. In response to these requests, EPA has decided to extend the public comment period by an additional 30 days to August 9, 2000.

Dated: June 8, 2000.

**J. Charles Fox,**

*Assistant Administrator.*

[FR Doc. 00-15031 Filed 6-13-00; 8:45 am]

**BILLING CODE 6560-50-U**

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 15

[ET Docket No. 98-153; FCC 00-163]

### Revision of the Rules Regarding Ultra-Wideband Transmission Systems

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** This document is proposing regulations that would permit the operation of ultra-wideband (UWB) radio systems on an unlicensed basis under the Commission's rules. Comments are requested on the standards and operating requirements that are proposed to be applied to UWB systems to prevent interference to other radio services.

**DATES:** Comments must be submitted on or before September 12, 2000, and reply comments on or before October 12, 2000.

**ADDRESSES:** All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of Secretary, Federal Communications Commission, 445 12th Street, SW, TW-A325, Washington, DC 20554.

**FOR FURTHER INFORMATION CONTACT:** John A. Reed, Office of Engineering and Technology, (202) 418-2455.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's Notice of Proposed Rule Making in ET Docket No. 98-153, adopted May 10, 2000, and released May 11, 2000. The complete text of this Notice of Proposed Rule Making is available for inspection and copying during normal business hours in the FCC Reference Center (Room 239), 445 12th Street, SW, Washington, DC, and also may be purchased from the Commission's copy contractor, International Transcription Services, Inc., (202) 857-3800, 2100 M Street, NW, Suite 140, Washington, DC 20037.

### Summary of the Notice of Proposed Rule Making

1. This Notice of Proposed Rule Making responds to an earlier Notice of Inquiry in this proceeding, 63 FR 50184, September 21, 1998. We are proposing to amend 47 CFR 15 to permit products incorporating ultra-wideband (UWB) technologies. While comprehensive tests have not been completed, UWB devices appear to be able to operate on spectrum already occupied by existing radio services without causing interference. This would permit scarce spectrum resources to be used more efficiently. Further testing and analysis

is needed before the risks of interference are completely understood. Such testing is being planned by a number of organizations, and an ample opportunity will be provided to ensure that the test results are submitted into the record for public comment.

2. Most near-term applications involve relatively low powers and short operating ranges. Further, it appears that UWB devices are intended to be mass marketed to businesses and consumers such that individual licensing of each device would be impractical. Accordingly, it is proposed that UWB devices be regulated under part 15 of the rules.

3. *UWB definition.* We propose to employ the definition established by the OSD/DARPA UWB radar review panel with some modifications. The OSD definition states that the -20 dB fractional bandwidth of an UWB emission must be at least 0.25, *i.e.*, the -20 dB bandwidth must be at least 25% of the center frequency. We propose to define a UWB device as any device where the -10 dB fractional bandwidth is greater than 0.25 or the -10 dB bandwidth is greater than 1.5 GHz. The center frequency is proposed to be defined as the average of the upper and lower -10 dB points. We also propose that the bandwidth be determined using the antenna designed to be used with the UWB device. Comments are requested on the following: (1) Should the fractional bandwidth be changed to account for the narrower bandwidth that would be measured using the -10 dB emission points instead of the -20 dB points. (2) Should some other method be used to determine the emission bandwidth, such as a calculated bandwidth based on pulse width. (3) Should UWB be defined as limited to devices that solely use pulsed emissions where the bandwidth is directly related to the narrow pulse width. (4) Should extremely high speed data systems that comply with the UWB bandwidth requirements only because of the high data rate employed, as opposed to meeting the definition solely from the narrow pulse width, be permitted. (5) What alternative definitions should be considered?

4. *Frequency bands of operation.* We observe that ground penetrating radars (GPRs) must operate at frequencies below 2 GHz in order to obtain the penetration depth and resolution necessary to detect and obtain the images of buried objects. GPRs can neither avoid nor notch out the restricted frequency bands. However, it appears that the risk of interference from GPRs is negligible because the overwhelming majority of their energy

is directed into the ground where most of the energy is absorbed and emissions in other directions can be easily shielded. Accordingly, we propose to allow GPRs to operate in any part of the spectrum.

5. It is unclear whether the same arguments that apply to GPRs concerning penetration depth and resolution similarly apply to other imaging devices. We invite comments on whether we should treat such imaging systems the same as GPRs or restrict the operation of such devices below a certain frequency. Comments should address whether the operation of through-wall imaging systems should be limited to parties eligible for licensing under the Public Safety pool of frequencies in part 90 of our rules. Comments also are requested on whether through-wall imaging systems should be required to incorporate automatic power control features that would reduce power levels to the minimum necessary to function based on the composition of the surface and its absorption of RF energy.

6. We believe that most other UWB devices generally can operate in the region of the spectrum above approximately 2 GHz without causing harmful interference to other radio services. We have significant concerns about the operation of UWB devices, except for GPRs and possibly through-wall imaging systems, in the region of the spectrum below approximately 2 GHz. We invite comments on UWB operations, potential restrictions on operation for UWB below 2 GHz and the impacts such restrictions would have on any potential applications for UWB technology. We also invite comments as to the precise frequency below which operations of UWB devices may need to be restricted. We also wish to consider a number of alternative approaches to expressly prohibiting operations below 2 GHz. We invite comment as to whether and at what levels, if any, we should permit operation in the restricted bands below 2 GHz, the viability of establishing a general emission limit for UWB devices below 2 GHz, and whether a very stringent limit, or notch, should be applied to the GPS band. We will consider allowing access to the spectrum below 2 GHz provided test results and detailed technical analysis are submitted demonstrating that there is no risk of harmful interference to GPS, to other services operating in restricted frequency bands, or to TV broadcasting.

7. *Further testing and analysis.* We understand that certain manufacturers of UWB devices and other interested parties are planning tests. We encourage

parties to submit the test results into the record by October 30, 2000. We will issue a public notice to provide an opportunity to provide comments and replies on the test results and analysis.

8. *Emission limits.* We tentatively conclude that it is necessary to regulate both the peak and average emission levels above 1 GHz and the quasi-peak emission levels below 1 GHz. We request comment on whether it is possible for UWB designers to select system parameters to space the UWB spectral lines in places within the GPS band where GPS receivers are less sensitive to interference. We also seek comment on whether we should require use of a scrambler technology that prevents long strings of unchanging bits or, alternatively, a performance requirement that would show that the transmitted spectrum remains noise like in the case of unchanging input data.

9. We believe that the general emission limits contained in § 15.209 of our rules appear appropriate for UWB operations. However, for emissions from UWB devices other than GPRs and, possibly, through-wall imaging systems we tentatively propose that emissions that appear below approximately 2 GHz be attenuated by at least 12 dB below the general emission limits. Comments are requested on whether such an attenuation level is necessary, or whether additional attenuation below 2 GHz is possible or necessary. We also seek comment on whether the proposed reduction in the emission levels should apply to all emissions below 2 GHz or only to emissions below 2 GHz that fall within the restricted bands. Comments also are requested on whether UWB devices other than GPRs, and possibly through-wall imaging systems, should be permitted to operate below 2 GHz provided they comply with these reduced emission levels.

10. A limit on peak emissions is necessary to reduce the potential for UWB emitters to cause harmful interference to radio operations above 1 GHz. The Notice proposes to establish peak emission limits above 1 GHz as follows: (1) the peak level of the emission when measured over a bandwidth of 50 MHz shall not exceed the maximum permitted average emission level by more than 20 dB; and (2) the absolute peak output of the emission over its entire bandwidth shall not exceed the maximum permitted average emission level by more than  $[20 + 20\log_{10}(-10 \text{ dB bandwidth of the UWB emission in Hz}/50 \text{ MHz})]$  dB or 60 dB, whichever is the lower value. We intend to rely heavily on submitted test data in determining what peak emission standards should apply to UWB

products. We believe that further testing and analysis is desirable on the cumulative impact of emissions from multiple UWB transmitters.

11. We believe that the existing limit in § 15.207 for controlling the amount of energy permitted to be conducted onto the AC power lines is a reasonable starting point for establishing standards until additional experience can be gained with this equipment. We do not agree that higher conducted limits, equivalent to the limits for Class A digital devices, should be permitted in non-residential environments.

12. *Measurement procedures.* Below 1 GHz, we propose to require emissions to be measured using a quasi-peak detector. Above 1 GHz, we propose to require average measurements to be made with a 1 MHz resolution bandwidth (RBW) as we currently do for intentional and unintentional radiators. We also propose that spectrum analyzer video averaging with a video bandwidth (VBW) of no greater than 10 kHz or less than 10 Hz be used in conjunction with peak hold to determine the average level as a function of frequency. We request comments on applying the measurement procedures specified in HP Application Note 150–2.

13. We propose to measure the peak emission levels of UWB signals directly in the time domain. For peak measurements over a 50 MHz bandwidth, the IF output of a microwave receiver that uses a wide bandwidth, e.g., 50 MHz, can be analyzed using a conventional oscilloscope. We believe that the total peak output can be measured with standard sampling oscilloscope techniques for UWB signals with evenly spaced identical elements, such as radar signals, and for UWB signals with modulation on their amplitude or spacing. We also request comments on allowing peak measurements to be made using the pulse desensitization correction factor (PDCF) provided the applicant can show that the measurements, as corrected by the PDCF, is the true peak for the waveform being tested. As with average measurements, the procedures specified in HP Application Note 150–2 would be applied. We recognize that the peak level measured with a spectrum analyzer is the RMS peak and must be adjusted to obtain the true peak. We seek comment on the type of UWB signals, if any, for which this latter measurement procedure would be appropriate. Comments also are sought on whether the PDCF should be calculated based on an effective pulse width, i.e., two divided by the bandwidth, in Hertz, of the emitted

fundamental lobe. We seek comment on what type of measurement antennas are needed to make accurate peak measurements and the least restrictive way we might specify this in our rules.

14. For impulse systems, we believe that the center frequency, as determined by the  $-10$  dB points, should be used as the reference for determining the upper frequency range over which emissions should be measured. However, we are concerned that a manufacturer could employ a low frequency carrier with an extremely narrow pulse or that a narrow pulse impulse system could be used with a low frequency antenna, resulting in emissions extending far beyond the tenth harmonic, the normal upper range of measurements. Accordingly, comments are requested on whether a different method of determining the frequency measurement range should be employed, e.g., based on pulse rise time and width. In addition, commenting parties should note that the lower frequency range of measurements would continue to be determined by the lowest radio frequency generated in the device. Comments are requested on whether the pulse repetition frequency, pulse dithering frequency, modulating frequency or other factors would permit the investigation of a low enough frequency to address the possible amplification of the emitted signal due to antenna resonances below the fundamental emission.

15. *Prohibition against Class B, damped wave emissions.* We agree that we should eliminate the prohibition against Class B, damped wave emissions for UWB devices as this prohibition does not appear relevant at the power levels being proposed.

16. *Other matters.* In the Notice we proposed specific regulations regarding the frequency of operation and emission levels that would apply to UWB devices. We also propose to amend 47 CFR 15.215(c) to state that intentional radiators operated under the provisions of 47 CFR 15.217 through 15.255 or subpart E of the current regulations must be designed to ensure that the main lobe or the necessary bandwidth, whichever is less, is contained within the frequency bands designated in those rule sections under which the equipment is operated. The requirement to contain the fundamental emission within one of the specified frequency bands would include the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmission over variations in temperature and supply voltage. If a frequency stability is not

specified, the regulation would continue to recommend that the fundamental emission be kept within at least the central 80 percent of the band in order to minimize the possibility of out-of-band operation.

17. *Initial Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act (RFA),<sup>1</sup> the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this Notice of Proposed Rule Making (“Notice”). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Notice. The Commission will send a copy of this Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration. See 5 U.S.C. 603(a). We have included this IRFA, although we expect that this action will not cause interference to existing radio stations. We have determined to do this analysis to create a fuller record in this proceeding.

#### A. Need for, and Objectives of, the Proposed Rules

This rule making proposal is initiated to obtain comments regarding proposed changes to the regulations for radio frequency devices that do not require a license to operate. The Commission seeks to determine whether its standards should be amended to permit the operation of ultra-wideband transmission systems.

#### B. Legal Basis

The proposed action is taken pursuant to Sections 4(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 301, 302, 303(e), 303(f), 303(r), 304, and 307.

#### C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.<sup>2</sup> The Regulatory Flexibility Act defines the term “small entity” as having the same meaning as the terms “small business,” “small

<sup>1</sup> See 5 U.S.C. 603. The RFA, see 5 U.S.C. 601 et. seq., has been amended by the Contract With America Advancement Act of 1996, Public Law 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Enforcement Fairness Act of 1996 (SBREFA).

<sup>2</sup> 5 U.S.C. 603(b)(3).

organization,” and “small business concern.”<sup>3</sup> A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.<sup>4</sup> Nationwide, there are approximately 4.44 million small business firms, according to SBA reporting data.<sup>5</sup> A small organization is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”<sup>6</sup> Nationwide, as of 1992, there were approximately 275,801 small organizations.<sup>7</sup> “Small governmental jurisdiction” generally means “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000.”<sup>8</sup> As of 1992, there were approximately 85,006 such jurisdictions in the United States. This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.<sup>9</sup> The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (91 percent) are small entities. SBA has defined a small business for Standard Industrial Classification (SIC) category 4812 (Radiotelephone Communications) to be small entities when they have no more than 1500 employees.<sup>10</sup> According to the Bureau of Census, only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees.<sup>11</sup> Given this definition, nearly all such companies are considered small.

#### D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

Part 15 transmitters already are required to be authorized under the Commission’s certification procedure as

<sup>3</sup> Id. Section 601(3).

<sup>4</sup> Id. Section 632.

<sup>5</sup> 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

<sup>6</sup> 5 U.S.C. 601(4).

<sup>7</sup> 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

<sup>8</sup> 5 U.S.C. 601(5).

<sup>9</sup> U.S. Dept. of Commerce, Bureau of the Census, “1992 Census of Governments.”

<sup>10</sup> See 13 CFR 121.201.

<sup>11</sup> U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Subject Series, Establishment and Firm Size, Table 5, Employment Size of Firms, 1992, SIC code 4812 (issued May 1995).

a prerequisite to marketing and importation. The reporting and recordkeeping requirements associated with these equipment authorizations would not be changed by the proposals contained in this Notice. These changes to the regulations would permit the introduction of an entirely new category of radio transmitters. All radio equipment manufacturers, large and small, would be provided with the opportunity to produce this equipment.

*E. Steps Taken To Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered*

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities. We do not expect that the rules proposed in this Notice of Proposed Rule Making will have a significant economic impact on small entities.

In response to the *Notice of Inquiry*, in this proceeding no party raised small entity issues. We have considered several alternatives to the proposed standards, however. For example, in response to some of the comments, we considered the possibility of prohibiting all UWB operation below 2 GHz, (except for ground penetrating radar systems) in order to provide additional interference protection to the authorized radio services operating below this frequency. Instead, we have indicated our concerns about operation below 2 GHz and have stated that such operation would be considered provided test results and technical analysis demonstrated that there was no risk of harmful interference to other authorized entities (which would include small authorized entities). Similar issues were considered for all of the standards proposed in this Notice of Proposed Rule Making. The proposed standards are intended to accommodate most of the systems presented to us without favoring any particular manufacturer's design.

*F. Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rule*

None.

18. The proposed action is authorized under sections 4(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 301, 302, 303(e), 303(f), 303(r), 304, and 307.

Federal Communications Commission.

**Magalie Roman Salas,**

*Secretary.*

[FR Doc. 00-14982 Filed 6-13-00; 8:45 am]

**BILLING CODE 6712-01-P**

**DEPARTMENT OF ENERGY**

**48 CFR Part 970**

**RIN 1991-AB46**

**Acquisition Regulation: Changes to Department of Energy Cost Principles and Various Clauses**

**AGENCY:** Energy.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Department of Energy (DOE) proposes to amend its Acquisition Regulation to delete those cost principles and related provisions of Department of Energy Acquisition Regulation (DEAR) that are adequately covered by the Federal Acquisition Regulation (FAR) and retaining only that coverage which supplements the FAR. There is one policy change in this rulemaking. Cost of Money, a previously unallowable cost, is proposed as an allowable cost. This proposed rulemaking results from a special review performed by DOE and it will be finalized concurrently with another recently proposed rule published March 13, 2000. The two rules will result in a complete reissuance of the DEAR.

**DATES:** Written comments must be submitted no later than August 14, 2000.

**ADDRESSES:** Comments (3 copies) should be addressed to: Terrence D. Sheppard, Office of Procurement and Assistance Management, Office of Procurement and Assistance Policy (MA-51), Department of Energy, 1000 Independence Avenue S.W., Washington, D.C. 20585.

**FOR FURTHER INFORMATION CONTACT:** Terrence D. Sheppard (202) 586-8193; e-mail [terry.sheppard@hq.doe.gov](mailto:terry.sheppard@hq.doe.gov); fax (202) 586-0545.

**SUPPLEMENTARY INFORMATION:**

I. Background

II. Section by Section Analysis

III. Public Comments

IV. Procedural Requirements

A. Review Under Executive Order 12866

B. Review Under Executive Order 12988

C. Review Under the Regulatory Flexibility Act

D. Review Under the Paperwork Reduction Act

E. Review Under the National Environmental Policy Act

F. Review Under Executive Order 12612

G. Review Under the Unfunded Mandates Reform Act of 1995

H. Review Under the Treasury and general Government Appropriations Act, 1999

**I. Background**

The Department of Energy (DOE) and its predecessor agencies have traditionally accomplished their defense and energy research mission responsibilities through the use of management and operating (M&O) contracts. Although M&O contracts are authorized by the Federal Acquisition Regulation (FAR) at Part 17.6, FAR policies generally do not provide the special terms and conditions for award and contract administration processes tailored to the M&O contracting environment. Accordingly, the Department has established specific policies and procedures at Department of Energy Acquisition Regulation (DEAR) Parts 917 and 970. Included among these policies and procedures is a unique set of cost principles which govern the allowability of costs under M&O contracts.

Last year DOE conducted a review of the policies and procedures governing the award and administration of M&O contracts. One of the objectives of the review was to determine whether current DEAR cost principle coverage could be eliminated and reliance placed on similar coverage contained in the FAR. As a result of a comparative analysis between the FAR and the DEAR cost principles and related procedures, the review concluded that the FAR cost principles adequately addressed DOE interests, and that supplemental coverage was necessary only in a limited number of cases.

In this notice DOE proposes to amend the DEAR to implement the results of a comparative analysis of the FAR, Part 31, and DEAR 970.31, and 970.52. The amendments will delete those cost principles and related provisions of DEAR 970 that are adequately covered by the FAR and renumber those cost principles supplemented in the DEAR to conform to the FAR numbering.

One exception is the "Travel costs" cost principle (FAR 31.205-46 and DEAR 970.3102-17). DOE has retained separate coverage, although identical to the current FAR coverage, because there is a proposed change to the FAR section on travel costs that will change the government-wide standard of travel cost allowability to a "reasonableness" standard. If the FAR change is made, DOE will need to retain the current