Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Compatibility Between Cable Systems And	)	
Consumer Electronics Equipment	)	**PP Docket No. 00-67**
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REPORT AND ORDER

Adopted: September 14, 2000 **Released: September 15, 2000**

By the Commission: Commissioner Ness is issuing a statement.

I. INTRODUCTION

1. The Commission opened this proceeding to "resolve outstanding issues regarding the compatibility of cable television systems, digital television receivers, set-top boxes, and other equipment used by consumers to receive and enjoy the ever-increasing array of programming and other services available over cable television systems."[1] The *Notice* raised two primary issues: (1) requirements for a DTV receiver to be labeled "cable-compatible," and (2) licensing terms for copy protection technology. We noted with approval that the industry parties had been negotiating about these and other compatibility issues and had reached agreement on some of them.[2] We expressed "the hope and belief that comprehensive market-driven solutions were attainable and would be superior to a regulatory approach." Because the industries had not resolved these two issues, we "reluctantly" initiated the present rulemaking.

2. Since the *Notice* was issued, the cable and consumer electronics industries accelerated the pace of their labeling discussions and, indeed, filed a joint letter announcing an agreement on two

[1] *Notice of Proposed Rulemaking* in PP Docket No. 00-67, 15 FCC Rcd 8776 (2000) ("*Notice*")

[2] *See Notice* at 8776-77. The Commission noted therein that agreements between the Consumer Electronics Association and the National Cable Television Association in February 2000 had resolved two of the four major compatibility issues then outstanding—technical requirements for direct connection of digital television receivers to digital cable systems, and provision of tuning and program scheduling information to support the navigation function of digital television receivers, including on-screen program guides. The other two issues, labeling and copy protection technology licensing, were addressed in the *Notice*.

specific labels,[3] but this announcement proved premature. Subsequent representations by the Consumer Electronics Association and by consumer electronics retailers[4] made it clear that this letter did not embody the type of consensus required to resolve the labeling issue.[5] In the absence of a clear consensus among all relevant parties, the Commission today adopts three labels for digital television (DTV) equipment.

3. With regard to copy protection, the question that emerged in the comments relates to the Commission's navigation devices rules.[6] Specifically, in order for a commercially available navigation device to display programming that has been encrypted, the navigation device must interface with a security module, known as a POD (point-of-deployment) device. Manufacturers of commercially available navigation devices need a technology license in order to build the interface, and some parties to this proceeding questioned whether copy protection measures could be included in this technology license. Since the question involves our navigation devices rules, we will resolve it in a companion item that we adopt today, the *Further Notice of Proposed Rulemaking and Memorandum Opinion & Order/Declaratory Ruling* in *Implementation of Section 304 of the Telecommunications Act of 1996—Commercial Availability of Navigation Devices.* As detailed therein, we find that our navigation devices rules do permit some amount of copy protection to be included in commercially available navigation devices and in the technology license that manufacturers obtain in order to build the POD-host interface.[7]

4. The *Notice* in this proceeding also raised questions relating to scrambling channels on the basic service tier and our rules requiring cable operators to offer "supplemental equipment" to subscribers. Moreover, at least one commenter provided follow-up information on implementation of the February 22, 2000 agreement between CEA and NCTA on technical standards and PSIP.[8] This *Report*

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[3] *See* Letter from Robert Sachs, President and CEO, National Cable Television Association and Gary Shapiro, President and CEO, Consumer Electronics Association to William Kennard, Chairman, FCC (May 24, 2000) (*"May 24 Letter")*.

[4] *See* Consumer Electronics Association Reply Comments at 2-7, Letter from Michael Petricone to Magalie R. Salas, Federal Communications Commission, Office of the Secretary (June 27, 2000) in PP Docket No. 00-67 (asserting that "as practical matter, implementation of labels by manufacturers over retailer opposition would be difficult."), Consumer Electronics Retailers Coalition Reply Comments at 2 (asserting that the CEA/NCTA labels "would mislead consumers, would impede competition, and would undermine, rather than strengthen, the crucial OpenCable initiative that it was intended to support."), Circuit City Stores, Inc. Reply Comments at 1-4.

[5] We note that NCTA regards the May 24 agreement as responsive to the Commission's call in the *Notice* and stands by the agreement. *See* Letter from Robert Sachs, President and CEO, National Cable Television Association to William Kennard, Chairman, FCC (June 13, 2000).

[6] 47 C.F.R. §§76.1200-1210.

[7] We incorporate by reference all comments and reply comments in PP Docket No. 00-67 into CS Docket No. 97-80.

[8] *See* Letter from Robert Sachs, President and CEO, NCTA and Gary Shapiro, President and CEO, CEA to William Kennard, Chairman FCC (Feb. 22, 2000) ("February 22 Letter")The letter and its two appendices detail agreements on technical requirements for direct connection of digital television receivers to digital cable systems and on provision of tuning and program scheduling information to support the navigation function, including on-screen tuning guides. The term "PSIP" stands for Program and System Information Protocol. PSIP is a set of specifications for how to transmit tuning, scheduling, and related information about programs.

and Order reviews these matters, but no rule changes are adopted.

II. LABELING OF DTV EQUIPMENT

A. Comments[9]

5. In the *Notice*, we sought comment on whether a DTV receiver without an IEEE 1394 connector should be labeled "cable ready."[10] In negotiations, the cable industry had taken the position that every cable-ready DTV should include the 1394 connector, while the consumer electronics industry opposed a blanket requirement for all "cable ready" DTVs to have one. Indeed, the consumer electronics industry wanted the option of producing a less expensive DTV without the 1394 connector. We noted that we were not wedded to the term "cable ready," and that different types of DTV receivers could be capable of accessing different combinations of cable services. We said that, in practical terms, "the issue is how to best indicate to consumers the capability of television receivers to operate with cable television systems."[11]

6. The May 24 letter from CEA and NCTA included labels for two types of DTV receivers. One type of receiver, labeled "Digital Television: Cable Connect," could be directly connected to a cable system offering digital service and receive digital basic and premium cable programming, with a POD from the cable operator required to access encrypted programming. This type of receiver would not include a 1394 connector and would not have interactive (two-way) capability using cable facilities.[12] The "Digital Television: Cable Connect" receiver would also carry a disclaimer indicating that it is not equipped with a 1394 digital connector, noting that users of the receiver "may not receive the cable operator's advanced and interactive digital services and High Definition programming, such as impulse pay-per-view, video-on-demand, enhanced program guide, and data-enhanced television services," and suggesting that the consumer contact the cable operator "for service and programming options."[13] The second type of receiver, designated as "Digital Television—Cable Interactive," would include the same direct connection features as the first type of receiver, and would also feature a 1394 connector. The proposed description indicates that this receiver could be connected to a digital set-top box via the 1394 connector and thus access any advanced and interactive services that the cable operator offered via the set-top box.

7. In commenting on the May 24 letter, Circuit City made the point that the 1394 connector is not the only means of providing interactive services, and suggested that the draft labels were misleading

[9] Appendix B contains a list of comments and reply comments.

[10] *See Notice* at 8783-84. The IEEE 1394 standard describes a two-way "bus" connector capable of carrying a compressed digital video bitstream.

[11] *See Notice* at 8781 (ftn. 34).

[12] For example, a cable subscriber with such a receiver could not use cable facilities to order a pay-per-view movie. Depending on the capabilities of the cable system, however, the subscriber might be able to perform this function using his/her telephone line.

[13] *See* Letter from Robert Sachs, President and CEO, National Cable Television Association and Gary Shapiro, President and CEO, Consumer Electronics Association to William Kennard, Chairman, FCC (May 24, 2000), Attachment.

to the extent that they implied otherwise.[14] Circuit City also pointed out that the 1394 connector might be useful for functions other than connecting a DTV (digital television) receiver to a cable set-top box. And Circuit City also alleged that the cable industry was behind schedule in completing a specification for an integrated bidirectional DTV, i.e., a receiver that integrated advanced and interactive functions and could be directly connected to a cable system, without need for a set-top box.

8. Subsequent communications from industry parties demonstrate the May 24 labels do not represent industry-wide consensus. In a July 5 letter to Chairman Kennard, the president of the Consumer Electronics Association noted that this proceeding "has stimulated a new and broader interest in the labeling issue," refers to "the objections registered by the retail community to the proposed labels," and states that "CEA will very shortly be meeting with other interested parties to discuss the matter and establish a timetable for the expeditious completion of a comprehensive labeling program."[15] Interested parties have informed us that no agreement has been reached yet.

9. Some commenters who oppose the May 24 labels have suggested alternative approaches. For example, NAB/MSTV asserts that "the FCC must *immediately* mandate IEEE 1394/5C interfaces for all DTV sets and set-top boxes (STB) for today's STB environment." (emphasis in original)[16] NAB/MSTV argues that the 1394 connector is needed in order to transport HDTV signals from the cable STB to the DTV receiver and because consumers will need "a consumer-friendly ubiquitous connector for all digital television devices." NAB/MSTV endorses the idea of a direct connection DTV receiver as well but suggests that DTVs with the 1394 will be on the market earlier than direct connection receivers.

10. Several satellite industry commenters expressed concern that the proposed labels are too "cable-centric" and could leave consumers uncertain about whether their equipment can display satellite-delivered programming.[17] These commenters worry that the labels could tilt the competitive balance in favor of cable and against satellite delivery. Echostar suggests "alternative designations which are delivery system neutral, such as "digital ready" and/or "digital compatible" to identify the functionality of new digital television receivers and other consumer equipment." NRTC proposes "the terms "Digital-TV Interactive" and/or "Digital-TV Non-Interactive" to identify the functionality of new digital television receivers and other consumer equipment."

11. Additionally, the Consumer Electronics Retailers Coalition ("CERC") proposes a labeling scheme.[18] It suggests the following.

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[14] Circuit City Reply Comments at 3

[15] Letter from Gary Shapiro, President and CEO, Consumer Electronics Association to William Kennard, Chairman, FCC (July 5, 2000). *See also* Reply Comments of CERC at 8 ("if there are to be any further FCC industry consultations with respect to this proceeding, CERC members would like to be included.")

[16] NAB/MSTV Comments at ii. *See also* Julio Loza Reply Comments at 4. The term "5C" refers to a copy protection technology developed by Intel, Matsushita, Sony, Hitachi, and Toshiba. *See* Comments of the "5" Digital Transmission License Administrator.

[17] *See* Satellite Broadcasting and Communications Association Comments at 4, Echostar Communications Corporation Comments at 3-4, National Rural Telecommunications Cooperative Reply Comments at 4-5..

[18] CERC Reply Comments at 7.

> Cable Interactive—Features two-way communication facility for receipt of advanced and interactive cable services via this receiver's remote control. Cable security card required for receipt of encrypted programming.
>
> Cable Direct—Features direct receipt of cable programming. Two-way communication not available via remote control. Cable security card required for receipt of encrypted programming.

12. MPAA urges that "[A]ny designation that states or implies that the receiving apparatus is "cable-ready" should be restricted to receivers that provide effective content protection."[19] The MPAA criteria for "effective content protection are as follows." The receiver would need to incorporate a POD module that employs encryption and authentication to protect content across the POD-host interface. The POD module would also need to be subject to licensing that imposes content protection obligations on the host device with which the POD is used.

B. Discussion

1. General Considerations

13. We agree that consumers will likely want what Circuit City refers to as a "box-to-box" connector to link digital appliances within the home and that a 1394 connector fulfills this function. However, Section 624A of the Communications Act authorizes us to adopt regulations requiring compatibility of cable systems with televisions receivers and videocassette recorders and not, e.g., DTV connections to a DVD player.[20] Moreover, some consumers may want to use one or more of their television receivers solely to receive broadcast and cable programming. Those receivers would not necessarily need a 1394 connector to receive such signals. Additionally, it is not clear that DTV receivers with 1394 connectors will reach the market earlier than direct connection one-way receivers.[21] For these reasons, we decline to require all "cable-ready" DTV receivers or, indeed, all DTV receivers, to have a 1394 connector. We are confident that the consumer electronics industry will respond to consumer demand and provide DTV receivers with the features that consumers desire, and that the labeling scheme we adopt today will permit consumers to make well-informed decisions about DTV equipment purchases based on a clear understanding of the capabilities of receivers with different labels.

14. We recognize the concerns of the satellite industry regarding "cable-centric" labels, but decline to adopt their suggestions for alternative nomenclature. First, the statute authorizes us specifically to require labeling of cable compatibility. Second, the cable and consumer electronics industries have agreed on technical standards for connection of certain types of DTV receiver (unidirectional) to cable systems.[22] We are not aware of any comparable agreement between the

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[19] *See* MPAA Comments at 4-5. details the criteria for "effective content protection." The receiver would need to incorporate a POD module that employs encryption and authentication to protect content across the POD-host interface. The POD module would also need to be subject to licensing that imposes content protection obligations on the host device with which the POD is used.

[20] *see* 47 U.S.C. §544a(b)

[21] *See* "Audio Notes" in *Audio Week* Vol. 12, # 24 (June 12, 2000).

[22] *See February 22 Letter*.

consumer electronics industry and the direct-to-home satellite industry. Indeed, we are not aware of any agreement on transmission standards among the various satellite providers (e.g., DirecTv, Echostar, C-band). For these reasons we decline to adopt the suggested labels. We do note, however, that our navigation device rules make clear that no one can prohibit the inclusion of satellite reception capability in navigation devices, should a manufacturer wish to include this capability.[23] Moreover, we note that, in response to satellite industry concerns, CEA has stated that it "views these issues as important and will work with the DBS industry to establish appropriate labeling standards with respect to satellite equipment and to resolve any compatibility concerns.[24] We encourage the consumer electronics and satellite industries to work toward a consensus on such standards.

15. With regard to MPAA's argument that any cable ready receiver should provide effective copy protection, DTV receivers that connect directly to a cable system will, as the labels described below make clear, require a POD to receive encrypted programming. As our companion Declaratory Ruling makes clear, the host device license lawfully may include copy protection provisions.[25] Such provisions may be used to ensure that content does not flow out of the host device via an unprotected output. The same regime applies to cable set-top boxes. These set-top boxes ("STBs") will require a POD in order to access encrypted programming. The STB will then connect to a DTV via an interface such as the 1394. Copy protection provisions incorporated in the host device license will be able to ensure that content delivered in encrypted form does not exit the STB via an unprotected output, including via the 1394 output. Hence, copy protection capability will be one of the characteristics of a receiver that is labeled "cable ready." We recognize that the content and consumer electronics industries have not yet agreed on licensing terms for a copy protection technology to protect the 1394 interface. However, one such technology, the so-called "5C" technology, has been developed and standardized, and the industries are negotiating over terms to use it.[26] For these reasons, we decline to include specific copy protection language in our labels.

16. We believe that a significant number of cable subscribers will choose to access cable programming via a digital STB and we believe that, at least initially, the 1394 interface will be the preferred connector for STBs and DTV receivers. These beliefs led us to ask specifically about labels for DTV receivers with and without the 1394 connector. Because the CERC labels do not address 1394 connectors at all, we decline to adopt them.

17. The comments make clear that the labeling question centers on two characteristics of DTV equipment. One is interactivity—there is a distinction between equipment that is "unidirectional" (can only receive one-way services from the cable system) and equipment that is "bidirectional" (can both receive one-way services and allow the subscriber to communicate back to the cable system to access additional or advanced services). The second characteristic is connectivity—consumers may want to connect their DTV receiver to other equipment. (Circuit City refers to this as "box-to-box" connectivity.)

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[23] *See* 47 C.F.R. §76.1204(c).

[24] CEA Reply Comments at 3.

[25] To deploy the POD module, the host device must have an appropriate interface, and, to build that interface, the manufacturer of the host device will need a license for the necessary technology.

[26] The 5C technology is "a cryptographic protocol for protecting audio/video entertainment content from unauthorized copying, intercepting and tampering as it traverses high performance digital interfaces. *See* Comments of the "5C" Digital Transmission License Administrator at 2.

Although the industry has not agreed on a specification for it yet, many commenters anticipate the development of an integrated, bidirectional DTV receiver, with no 1394 connector, but with the ability to access interactive (two-way) services via direct connection to the cable system without the need for a set-top box. For example, CEA states that it is "anxious to continue to work with NCTA to create open standards required for the direct connection to cable systems by receivers that possess full two-way data transmission and reception capability, and which support advanced and interactive services without the need for any set-top box," and notes that "the CEA Cable Compatibility Committee (R-8) has initiated work on standards for two-way operation."[27] For its part, NCTA states that "an integrated bi-directional DTV set can be developed based on the specifications for the bi-directional set-top box which are available" and indicates that "[F]urther discussions are expected between the two industries on developing the specifications for the bi-directional (interactive) DTV sets which retailers are justifiably eager to sell."[28] Although a bidirectional DTV receiver would not need a 1394 connector to access a cable STB, the owner of the receiver might want a 1394 connector in order to connect the DTV to other equipment in the home, perhaps a digital VCR or DVD player on the input side as well as on the output side to a VCR.

18. A subscriber with the device described in the May 24 letter as "Digital TV—Cable Interactive, i.e., a unidirectional DTV receiver equipped with a 1394 connector, could access advanced and interactive services via a set-top box. To the extent that cable operators are continually developing new services, and to the extent that some of those services may require capabilities not available in earlier models of DTV receiver, one can imagine a subscriber wanting a 1394 connector as an "insurance policy." Rather than replacing his or her DTV receiver in order to upgrade the capability to access advanced services, the subscriber might prefer to purchase an upgraded set-top box and connect it to the DTV using a 1394 connector.

19. Several commenters also point out that digital interfaces in addition to the 1394 are likely to become available. For example, Matsushita Electric Corporation of America MECA) states that its commitment to the copy-protected 1394 interface…has never been intended to be exclusive of utilization of, and support for, other present and future interfaces" and "anticipates that, ultimately, OpenCable documents and specifications will support such other interfaces as well."[29] Sony notes that "[O]ther interfaces and means of delivering a signal already exist. Others no doubt will emerge. The labels ultimately adopted must take this into account."[30] For its part, Fox states that, in addition to working

[27] CEA Reply Comments at 8. *See also* Sony Reply Comments at 3 (noting that the May 24 labeling recommendation "does not address the appropriate label that should accompany a fully integrated DTV: one with a built-in receiver, monitor, and navigation device functionality, capable of supporting advanced and interactive digital cable services through direct connection to the cable system. Given consumer desire for simplicity in consumer electronics products, as well as the expected attractiveness of such services, we anticipate that the market for such television receivers will be significant.") and Philips Comments at 6, ftn 8 ("…defining only two levels of "cable-ready" may not be sufficient to effectively inform the consumer of all the different possibilities and limitations of the different combinations of DTV receivers, analog TV receivers and STBs.")

[28] *See* Status Report in CS Docket 97-80 at 10-11 (filed July 7, 2000 by NCTA et al.). *See also* Time Warner Cable Reply Comments at 3 (raising the possibility that when the bidirectional receiver has been "invented," then a label for it might refer to interactive functions).

[29] Matsushita Electric Company of America Comments at 3.

[30] Sony Comments at 3.

with the 5C group, it is working on other "copyright-compliant digital technologies with Victor Company of Japan Ltd. ("JVC").[31] Additionally, ATI refers to the "DVI (with HDCP or some other form of copy protection" as an alternative to 1394.[32]

20. These considerations lead us to establish labels for three types of DTV receiver—a unidirectional receiver capable of direct connection to the cable system, a unidirectional receiver capable of direct connection but that also includes a 1394 connector, and a bidirectional receiver capable of direct connection to the cable system and of accessing interactive services using that direct connection. As suggested above, some consumers may want a DTV receiver that is both bidirectional and has a 1394 connector, and we assume that some manufacturers will cater to this preference. We wish to reemphasize that the 1394 connector is by no means the only digital connector that is, or will become available. DTV receivers and other devices that incorporate the 1394 connector may well also incorporate an additional digital connector or connectors.[33] And, of course, manufacturers, retailers, and others are free to provide information to the consuming public about these connectors. We recognize that, at some point, technological developments may lead to an environment in which, for at least some consumers, another digital connector would be used in place of the 1394 connector. At that point in time, we would, of course, be able to consider adding to our list of labels.

21. Additionally, because specifications for the bidirectional direct connection receiver have not yet been finalized, and because other digital interfaces that are suitable for connecting a cable set-top box to a DTV receiver may be developed, we will keep this docket open and require periodic reports from the cable and consumer electronics industries on the development of the specifications, approved by an accredited standards body, that we anticipate will be adopted. In paras. 35 and 36 infra, we impose limited reporting requirements on the industries with respect to issues that were substantially but not completely resolved by the February 22, 2000 agreements. We adopt a single timetable for the reports on all of these matters, requiring the cable and consumer electronics industries to report to us by October 31, 2000 and every six months thereafter until October 2002 on progress in developing standards to implement the integrated bidirectional receiver. By keeping this docket open and imposing these reporting requirements, we preserve the option of incorporating into our rules the formal standards that we expect will result from continuing industry efforts to implement the February 22, 2000 agreements

[31] Fox Comments at 3. *See also* "JVC Announces Copy Protection System for Digital VHS" (JVC News Release, www.jvc-victor.co.jp/english/products/vcr/D-security.html (noting that Fox has endorsed for its own HD content a copy protection system including Intel's HDCP (High-bandwidth Digital Content Protection) and DVI (Digital Visual Interface) technologies for delivering and copy-protecting uncompressed digital signals.)

[32] ATI Comments at 2. In fact, ATI argues that a "high resolution display device should only be labeled "cable compatible" if it includes either a YPrPb or DVI (with HDCP or some other form of copy protection) connector. This will enable consumers to take full advantage of their high resolution display devices by displaying high resolution computer graphics data in addition to high resolution video data." DVI , or "Digital Video Interface" is a high-speed digital baseband interface that can pass through uncompressed high definition video content. HDCP, or "High-Bandwidth Digital Content Protection" is a copy protection technology suitable for implementation over DVI. We believe that our statutory mandate does not extend to labeling "high resolution display devices" to describe their ability to display computer graphics data. The question of how high resolution content is delivered to computer monitors is one that should be left to the marketplace.

[33] *See*, e.g., Letter from Marc Berejka and Nicos Tsilas, Microsoft Corporation, to Magalie R. Salas, Federal Communications Commission, Office of the Secretary (Sept. 7, 2000), referring to "other standards, such as the Digital Visual Interface ("DVI"), Universal Serial Bus ("USB"), or Internet Protocol ("IP") standard that could facilitate the offering of advanced digital services to American consumers." (ftn omitted).

and to develop specifications for a bidirectional direct connection digital television receiver.

22. Because our statutory labeling authority specifically mentions the terms "cable ready" and "cable compatible," and because we do not wish to constrain unduly the marketing flexibility of manufacturers and retailers, we will base our labels on the term "cable ready." We recognize that manufacturers and retailers may wish to use additional terminology to describe DTV receivers and, consistent with the rules we adopt today, they may do so.

23. Section 624A of the Communications Act, as amended (Act) provides, in part that "[T]he regulations prescribed by the Commission under this section shall include such regulations as are necessary (A) to specify the technical requirements with which a television receiver or video cassette recorder must comply in order to be sold as "cable compatible" or "cable ready."[34] Section 624A also provides that "[T}he Commission shall periodically review and, if necessary, modify the regulations issued pursuant to this section in light of any actions taken in response to such regulations and to reflect improvements and changes in cable systems, television receivers, video cassette recorders, and similar technology."[35] These provisions were adopted in 1992, prior to the authorization of digital television service. At that time, analog cable systems incorporated a limited number of technical capabilities, so a single category of television receivers that could be called "cable ready" was appropriate. Today, cable television systems provide a more varied mix of services than before and that variety is likely to increase over time. Consequently, and consistent with the comments cited in this section, we believe it is appropriate to adopt labels for more than one type of DTV receiver. In addition to our Section 624A authority referenced earlier in this paragraph, Section 336 of the Act also provides us the authority to go beyond the cable ready/not cable ready dichotomy. That section, which addresses the transition from analog to digital television, reads, in pertinent part: "[I]n prescribing the regulations required by subsection (a), the Commission shall …(4) adopt such technical and other requirements as may be necessary or appropriate to assure the quality of the signal used to provide advanced television services, and may adopt regulations that may stipulate the minimum number of hours per day that such signal must be transmitted; and (5) prescribe such other regulations as may be necessary for the protection of the public interest, convenience, and necessity."[36]

2. Label Definitions

24. We will define "Digital Cable Ready 1" as follows: A consumer electronics TV receiving device capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing digital programming. This device does not have a 1394 connector or other digital interface. A security card (or POD) provided by the cable operator is required to view encrypted programming.

25. We will define "Digital Cable Ready 2" as follows: A consumer electronics TV receiving device capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing digital programming. This receiving device will incorporate all features defined in Digital Cable Ready 1 and will also include the 1394 digital interface connector. A security card/POD provided by the cable operator is required to view encrypted

[34] 47 USC §544a(c)(2)

[35] 47 USC §544a(d)

[36] 47 USC§336)(a)(4), (a)(5).

programming. (Note: The 1394 connector may be used for attaching the receiving device to various other consumer appliances, including a digital cable set-top box that incorporates the 1394 connector. Connection of a Digital Cable Ready 2 receiver to a digital set-top box may support advanced and interactive digital services and programming delivered by the cable system via the set-top box.)

26. We will define "Digital Cable Ready 3 as follows: A consumer electronics TV receiving device capable of receiving analog basic, digital basic and digital premium cable television programming. This device will incorporate all features defined in Digital Cable Ready 1 and will also receive advanced and interactive digital services by direct connection to a cable system providing digital programming and advanced and interactive digital services. A security card/POD provided by the cable operator is required to view encrypted programming.[37]

27. Consumer electronics manufacturers currently are marketing DTV receivers capable of receiving off-the air digital terrestrial broadcasts. We note, however, that a DTV receiver could, in principle, comply with our Digital Cable Ready labeling requirements and not have the capability of receiving off-the-air digital signals. In the analog context consumers have the expectation that television sets they purchase to work with their cable systems will also receive over-the-air broadcast signals. We expect that in the digital world this will continue. If, however, manufacturers produce receivers that consumers can use with their digital cable systems, but that will not receive digital broadcast signals, we expect that they would be labeled as such to avoid consumer confusion.

28. Additionally, we wish to reiterate that manufacturers may choose to build television receiving devices that incorporate both the Digital 2 and Digital 3 standards, because the 1394 connector may be used for purposes other than connecting a television receiving device to a cable set-top box (e.g., to connect a television receiving device and a DVD player or a digital recorder).[38] Moreover, we wish to note that agreed-upon industry specifications for the Digital 3 set do not yet exist. We know that the consumer electronics manufacturers are interested in building such a receiver, the retailers are interested in marketing such a receiver, and the cable industry has expressed its willingness to complete the specifications.[39] We encourage the interested parties to work together to complete the relevant specifications promptly.

29. In the *Notice*, we framed the labeling issue as "how to best indicate to consumers the capability of television receivers to operate with cable television systems."[40] We continue to believe that avoiding consumer confusion is an important goal. This is consistent with our decision in the *Equipment Compatibility First Report and Order* to require cable operators to provide subscribers a consumer education program on compatibility issues, a requirement that is still in effect.[41] In Section 624A,

[37] See Appendix D for a "Sample Comparison Chart for Digital Cable Ready TV Receiving Devices."

[38] Equipment meeting both the Digital 2 and Digital 3 standards should carry both labels.

[39] *See* Sony Reply Comments at 3, Circuit City Comments at 5-10, Status Report in CS Docket 97-80 at 10-11 (filed July 7, 2000 by NCTA et al.).

[40] *Notice* at 8781 (ftn. 34).

[41] *See Equipment Compatibility First Report and Order*, 9 FCC Rcd 1981, 1993 ("We continue to believe that a requirement for cable operators to provide their subscribers a consumer education program at regular intervals is necessary and desirable to inform subscribers of compatibility issues and solutions…"). *See also* 47 C.F.R. §76.630(d).

Congress expressed the concern that compatibility problems might reduce consumer demand for and manufacturer willingness to supply "television receivers and video cassette recorders with new and innovative features and functions."[42] Although the specific reference was to receiver features that were disabled due to cable encryption implementation, the Congressional concern for fostering the availability of equipment with "new and innovative features and functions" is clear. Along the same lines, when discussing standards for digital cable transmissions, the Commission proclaimed the necessity of avoiding compatibility problems in order "to allow the mass production of economical consumer equipment that is compatible with cable digital services."[43] Moreover, in the *Notice*, we also pointed out that "[W]ithout resolution of outstanding compatibility issues, the transition from analog to digital broadcasting will be slowed, and the reclamation and reallocation of portion of the spectrum now allocated for analog television service will be delayed.[44]" These considerations--avoiding consumer confusion and helping to speed the digital transition—lead us to take an additional step in labeling requirements. Based on our authority under Sections 624A, 336, and 4(i), we will require that television receiving devices that provide any of the three sets of functions described above must indicate this by a notation of the form "Meets FCC labeling standard Digital Cable Ready **x,**" referencing the applicable designation or designations. The physical placement of the labels shall be governed by the terms of 47 C.F.R. §2.925(d) and (e).

III. OTHER MATTERS

30. The *Notice* sought comment on current cable industry practices with respect to digital services[45], including whether these services are ever provided on the basic service tier, whether they are generally scrambled, and whether we should permit scrambling of nonbroadcast digital channels on the basic tier. We also noted that the question of whether retransmitted local digital broadcast signals must be provided on the same tier that includes local analog broadcast signals is open in the digital must carry proceeding. With regard to current practice, NCTA notes that

> It is premature at this early stage of the digital transition to forecast what services will be encrypted in the future and which will not. As for cable's "current practice," as a general rule, and based on very limited experience, all digital services—with the exception of retransmitted non-encrypted local broadcast signals—are encrypted to provide for basic signal security. These digital services are provided on separate cable programming service ("CPS") digital tiers, not the basic tier.[46]

Time Warner Cable suggests that the "Commission should decline to consider issues relating to scrambling and tier positions of digital broadcast stations in this proceeding, deferring them instead to the pending Digital Must Carry proceeding."[47] On the other hand, the Home Recording Rights Coalition

[42] 17 U.S.C. §544a(a)(2).

[43] *Equipment Compatibility First Report and Order*, 9 FCC Rcd at 2005.

[44] *Notice* at 8777-78.

[45] *Notice* at 8783.

[46] NCTA Comments at 25.

[47] Time Warner Cable Comments at iv.

suggests that a prohibition on scrambling basic services is not needed in the digital domain, "*provided* that such scrambling is not used to *deny viewing* to consumers as a clumsy form of copy protection." (emphasis in original).[48]

31. Joint comments from the four largest commercial broadcasting networks assert their belief in "the critical importance of adequate copy protection for broadcast television, not only for the rapid implementation of DTV but for the future of our medium."[49] The networks express concern at the possibility of unfettered Internet retransmission of their programming and go on to state that

> The Commission should not preclude any digital program service, including broadcast programming, from being carried on the basic programming tier simply because it is encrypted…The ability to encrypt need not affect the universality of broadcast television nor its status as a free to the consumer program service. Because it may well be necessary to require conditional access in order to utilize available copy protection technology, broadcasters and other digital programming services should be afforded the flexibility to encrypt their signals. Accordingly, the Commission should adopt a flexible approach, and should not impose or retain any regulation that would preclude any digital programming service (broadcast or non-broadcast) from being included in a basic programming tier simply because such digital programming service is delivered on a conditional access basis.[50]

Time Warner Cable opines that "[B]roadcasters should not be permitted to demand that cable operators encrypt their retransmitted signals if such signals are not also encrypted when delivered over-the-air.[51] CEA asserts that it "has received indications from certain large MSOs that they plan to scramble all channels, including the broadcast signal on all systems" and argues that cable operators should be required to provide in the clear all "over-the-air broadcast and basic cable programming channels that are generally not subject to scrambling in the analog cable environment."[52]

32. We agree that this proceeding is not the proper venue for resolving issues related to scrambling of digital broadcast signals and their placement on cable service tiers. Tiering and signal carriage issues are more properly considered in our pending digital must carry proceeding.[53] To the

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[48] Home Recording Rights Coalition Comments at 9, ftn 24.

[49] Broadcast Networks Comments at 2.

[50] *Id.* at 3-4. *See also* Fox Entertainment Group Comments at 5 (employment of encryption and other content protection measures by broadcasters "should not affect the availability of free, over-the-air television," and digital broadcasts should be allowed on the basic tier even if "they are delivered on a conditional access basis.") The 5C Digital Transmission Licensing Administrator raises some technical implementation issues with respect to applying 5C encryption to broadcast TV content. *See* Reply Comments of the "5C" Digital Transmission Licensing Administrator at 3-4.

[51] Time Warner Cable Reply Comments at ii.

[52] CEA Comments at 20.

[53] *See Carriage of the Transmissions of Digital Television Broadcast Stations* CS Docket No. 98-120, 13 FCC Rcd 15092 (1998).

extent that commenters such as the Broadcast Networks, Fox Entertainment Group, and the Professional and Collegiate Sports Leagues[54] are raising issues relating to encryption of over-the-air DTV transmissions by broadcast licensees, we believe that the record is insufficient to come to a conclusion.[55]

33. The *Notice* also sought comment on "whether the transition to digital necessitates any amendment to our requirements for cable operators to offer supplemental equipment to subscribers, to enable them to use special features of their digital television receivers." (citation omitted)[56] Examples of special features include "picture in picture" and the ability to view one channel while taping a program on another. Our rules currently require cable operators that scramble any of their signals to provide "supplemental equipment that will enable the simultaneous reception of multiple signals."[57] No commenter suggested modifying our rules and only one commenter addressed the issue. CEA notes that

> Currently, a subscriber to digital cable service would find it impossible to fully utilize the picture-in-picture, channel-shift consecutive recording, and record-while watch functionalities of digital consumer electronics equipment without the provision of one or more operator-supplied set-top boxes. In a modular security environment, two or more PODs and complementary POD interfaces on the host devices will be necessary to effect these functions, because PODs are capable of passing only one channel at a time for display.[58]

This situation is parallel to what exists now in the analog domain, and 47 C.F.R. §76.630(c) reflects this situation. We see no need to impose different requirements for digital television at this time. Hence we will not modify our supplementary equipment rules.

34. A few commenters provide opinions on the two compatibility issues that are the subject of the February 22, 2000 agreement between CEA and NCTA[59], issues on which comment was not sought in the *Notice*. One issue addressed in the February 22 agreement is provision of tuning and program schedule information to support the navigation function of DTV receivers, including on-screen program guides. This information is generally referred to as "PSIP" (Program and System Information Protocol) information. The February 22 agreement outlined a series of steps that the industries need to take in order to ensure provision of this information to DTV receivers. CEA notes that while "significant

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[54] *See* Comments of the Professional and Collegiate Sports Leagues at 2-4.

[55] We note that, in our *Subscription Video* decision, we addressed the difference between broadcast and non-broadcast services, finding generally that services available without subscription fee or the need for specialized equipment are broadcasting. We stated that "the encryption of programming to make it unusable by the public is an indicia of the intent to limit access to the signal." (emphasis added). *See Report and Order* in Gen. Docket No. 85-305, 2 FCC Rcd 1001, 1006 (1987).

[56] *Notice* at 8783.

[57] 47 C.F.R. §76.630(c).

[58] CEA Comments at 4.

[59] Letter from Robert Sachs, President and CEO, NCTA and Gary Shapiro, President and CEO, CEA to William Kennard, Chairman FCC (Feb. 22, 2000).

progress has been made between the cable and consumer electronics industries regarding electronic program guides ("EPGs"), there remain several issues regarding implementation of the February 22, 2000 agreement." CEA goes on to specify two matters relating to PSIP, noting that "program producers must insert guide...information into each program before it is delivered to cable for distribution" and "the cable industry must implement the technical means to ensure that each program's PSIP information is delivered to the DTV set with out corruption, through any and all cable plants."[60] CEA "urges the Commission to support and help promote industry efforts on both actions, each of which will take some time to implement reliably, even as terrestrial broadcasters and their program suppliers have been learning to do over time." [61] Thomson opines that the PSIP agreement reflects "very significant progress," but notes that further work is needed in terms of "filling in important details."[62] NAB/MSTV notes that the PSIP agreement is not complete and asserts that "the Commission must establish quick deadlines for completing the standard and implementation."[63]

35. As noted, the *Notice* did not propose Commission action with respect to PSIP. Moreover, the parties to the agreement express some confidence in their ability to finalize it and do not seek FCC intervention. Nevertheless we are eager to see the agreement finalized and become the basis for actual DTV equipment. Moreover, we indicated our continuing interest in the development of EPGs in our Navigation Devices Report and Order.[64] We anticipate that the implementation of the PSIP agreement will result in the adoption of certain standards by an accredited standards organization or organizations. Since we are keeping this docket open, we will require the cable and consumer electronics industries to report to us by October 31, 2000 and every six months thereafter until October 2002 on progress in implementing the PSIP agreement.

36. NAB/MSTV also expressed concern about implementation of the February 22, 2000 agreement on technical requirements for direct connection of digital television receivers to digital cable systems, complaining that the agreement is embodied in not one but two separate RF interconnection standards.[65] In order to monitor the completion of the agreement, which we expect will lead to standards adopted by an accredited standards organization, we will require the cable and consumer electronics industries to report to us on progress in implementing the technical requirements agreement, according to the same schedule established for tracking progress on the PSIP agreement. These reporting requirements, along with our decision to keep this docket open, will give the Commission the option of incorporating into our rules any formal standards that the industries adopt with respect to technical connection requirements and/or PSIP.

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[60] CEA Comments at iii. *See also* Philips Comments at 2, ftn. 2 ("the NCTA/CEA agreement in principle on carriage of PSIP data will require additional work regarding its implementation—work that is already underway. Philips is confident these efforts will proceed swiftly and urges the Commission to remain involved in ensuring that industry-developed solutions are reached as quickly as possible and without a need for formal government involvement.").

[61] CEA Comments at iii.

[62] Thomson Comments at 4.

[63] NAB/MSTV Comments at 14.

[64] *Report and Order* in CS Docket No. 97-80, 13 FCC Rcd 14775 (1998) at para. 116.

[65] NAB/MSTV Comments at 12-13.

37. Several commenters also raised issues in connection with closed captioning, another issue that was not part of the *Notice* in this proceeding.[66] These matters are the subject of another Commission proceeding in which a Report and Order was recently adopted.[67] Hence this decision will not address closed captioning.

IV. PROCEDURAL MATTERS

38. In order to provide manufacturers sufficient lead time to incorporate the new labels into their DTV product lines, the new labeling rules will take effect on July 1, 2001.

39. Final Regulatory Flexibility Certification. A Final Regulatory Flexibility Certification, *see 5 U.S.C.* §605 , is contained in Appendix C.

V. ORDERING CLAUSES

40. *Ordering Clauses.* **IT IS ORDERED** that, pursuant to Sections 1, 4(i) and (j), 336, and 624A of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 336, and 544a, the Commission's rules **ARE AMENDED**, as set forth in Appendix A.

41. **IT IS FURTHER ORDERED** that the Consumer Information Bureau, Reference Information Center, **SHALL SEND** a copy of this Report & Order, including the Final Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

Federal Communications Commission

Magalie Roman Salas
Secretary

[66] *See*, *e.g.* Comments of Motorola, Inc., Comments of the Media Access Group at the WGBH Educational Foundation, and CEA Comments at 4-5.

[67] *See Report and Order* in ET Docket No. 99-254 and MM Docket No. 95-176, adopted July 31, 2000.

APPENDIX A

Part 15 of Title 47 of the Code of Federal Regulations is amended as follows:

47 C.F.R. §15.3(aa) is amended adding at the end of the last sentence the following.
and the provisions of §15.19(d).

47 C.F.R. §15.19(d) is amended by redesignating the text as 47 C.F.R. §15.19(d)(1) and adding a new 47 C.F.R. §15.19(d)(2) as follows.

(d)(2)(i) Consumer electronics TV receiving devices, including TV receivers, videocassette recorders, and similar devices, that include digital video signal processing capability and incorporate features intended to be used with digital cable television service, but do not provide one or more of the feature sets described in §15.19(d)(2)(ii) of this Chapter, shall not be marketed with terminology that describes the device as "cable ready" or "cable compatible" or otherwise conveys the impression that the device is fully compatible with digital cable service. Devices marketed as "digital cable ready" or "digital cable compatible" or otherwise conveying the impression that the device is fully compatible with digital cable service must offer one or more of the feature sets (i.e., Digital Cable Ready 1, Digital Cable Ready 2, Digital Cable Ready 3) specified in §15.19(d)(2)(ii) of this Chapter and carry the corresponding descriptive label or labels. With respect to their analog signal processing capabilities, these devices must also comply with the technical standards for cable ready equipment set forth in §15.118 of this Chapter. Devices not marketed as "digital cable ready" or "digital cable compatible" may be accompanied by factual statements about the various features of the devices that are intended for use with digital cable service and/or the quality of such features, provided that such statements do not imply that the devices is fully compatible with digital cable service. Statements relating to product features are generally acceptable where they are limited to one or more specific features of a device, rather than the device as a whole.

(d)(2)(ii) Descriptive Labels for consumer electronics TV receiving devices with digital signal processing capability.

Digital Cable Ready 1 refers to a consumer electronics TV receiving device capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing digital programming. This device does not have a 1394 connector or other digital interface. A security card (or POD) provided by the cable operator is required to view encrypted programming.

Digital Cable Ready 2 refers to a consumer electronics TV receiving device capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing digital programming. This receiving device will incorporate all features defined in Digital Cable Ready 1 and will also include the 1394 digital interface connector. A security card (or POD) provided by the cable operator is required to view encrypted programming.

Digital Cable Ready 3 refers to a consumer electronics TV receiving device capable of receiving analog basic, digital basic and digital premium cable television programming. This device will incorporate all features defined in Digital Cable Ready 1and will also receive advanced and interactive digital services by direct connection to a cable system providing digital programming and advanced and interactive digital services and programming. A security card (or POD) provided by the cable operator is required to view encrypted programming.

(d)(2)(iii) Consumer electronics TV receiving devices, including TV receivers, videocassette recorders, and similar devices, that include digital video signal processing capability and that provide one or more of the feature sets (i.e., Digital Cable Ready 1, Digital Cable Ready 2, Digital Cable Ready 3)described in §15.19(d)(2)(ii) of this Chapter, **must** carry the label or labels from 47 C.F.R. §15.19(d)(2)(ii) that describe the feature sets offered by the device. The format of the label or labels shall conform to the provisions of §§2.925(d) and (e) of this Chapter.

(d)(2)(iv) The requirements of this section apply to consumer TV receivers, videocassette recorders and similar devices manufactured or imported for sale in this country on or after July 1, 2001.

47 C.F.R. §15.118(a) is amended by adding the following sentence at the end.

Until such time as generally accepted testing standards are developed, §§15.118(c) and (d) of this Chapter will apply only to the analog portion of covered consumer electronics TV receiving equipment.

APPENDIX B

COMMENTERS

Association of Local Television Stations, Inc.
ATI Technologies
5C Digital Transmission License Administrator
Broadcast Networks (ABC,CBS, Fox, NBC)
Cable Networks (Turner, HBO, Disney, Fox Cable Networks, MTV Networks)
Circuit City Stores
Consumer Electronics Association
Echostar Communications Corporation
Fox Entertainment Group, Inc.
Home Recording Rights Coalition
Information Industry Technology Council
Julio Loza, Private Citizen
Media Access Group at the WGBH Educational Foundation
Metro Goldwyn Mayer Studios Inc.
Motion Picture Association of America
Motorola, Inc.
National Association of Broadcasters and the Association for Maximum Service Television, Inc.
National Cable Television Association (Comments plus separate letter)
Office of Advocacy, US Small Business Administration
Philips Electronics North America Corporation
Professional and Collegiate Sports Leagues
Satellite Broadcasting and Communications Association
Thomson Consumer Electronics
Time Warner Cable
Viacom, Inc.

REPLY COMMENTERS

Association of Local Television Stations, Inc.
Circuit City Stores
Consumer Electronics Association
Consumer Electronics Retailers Association
Digital Transmission Licensing Administrator
Echostar Communications Corporation
Fox Entertainment Group, Inc.
Home Recording Rights Coalition
Matsushita Electric Corporation of America
Motion Picture Association of America
National Association of Broadcasters and the Association for Maximum Service Television, Inc.
National Cable Television Association
National Rural Telecommunications Cooperative
Sony Electronics Inc.
Thomson Consumer Electronics, Inc.
Time Warner Cable
Zenith Electronics Corporation

APPENDIX C
FINAL REGULATORY FLEXIBILITY CERTIFICATION

1. The Regulatory Flexibility Act (RFA)[1] requires that an agency prepare a regulatory flexibility analysis for notice-and-comment rulemaking proceedings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[2] The *Notice of Proposed Rulemaking (Notice)*[3] in this proceeding proposed rules to resolve outstanding compatibility issues between cable television systems and consumer electronics equipment, in particular, requirements for labeling digital television (DTV) receivers to describe their capabilities to operate with digital cable television systems, and questions regarding licensing terms for copy protection technology. Out of an abundance of caution, the Commission published an Initial Regulatory Flexibility Analysis (IRFA) in the *Notice*, even though the Commission was reasonably confident that any economic effect on small entities would be minimal. The IRFA sought written public comment on the proposed rules and our tentative conclusions in the IRFA. We received one written comment in response to the IRFA, from the U.S. Small Business Administration (SBA).[4]

2. As noted, the *Notice* in this proceeding raised two issues -- labeling of digital television receivers and copy protection technology licensing terms. The second issue has now been moved to another proceeding and resolved therein via a declaratory ruling.[5] The present *Report and Order* addresses only the labeling of "consumer electronics TV receiving devices, including TV receivers, videocassette recorders, and similar devices, that include digital video signal processing capability and incorporate features intended to be used with digital cable television service." The impact of the rules adopted is thus on manufacturers of consumer electronics TV receiving devices. The rules do not mandate any particular design or set of features for this equipment. They merely require manufacturers to attach specified labels to receiving devices that provide certain sets of features. Of course, manufacturers of consumer electronics TV receiving devices already package and label their products with various descriptive captions. Moreover, we believe that manufacturers generally find it in their interest to ensure that consumers understand the capabilities of the product being offered for sale. Hence, manufacturers actually have commercial incentives to label their products clearly. (Concomitantly, consumers also benefit from the information in product labels.) For these reasons, and for reasons we discuss additionally below, we certify, pursuant to the RFA, that the labeling requirements adopted in the present *Report and Order* will not have a significant economic impact on a substantial number of small entities.

3. On the labeling issue as described in the IRFA, the SBA stated, "The Commission . . .

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[1] The RFA, *see* 5 U.S.C. § 601 *et seq*., has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[2] *See* 5 U.S.C. § 605(b).

[3] *Notice of Proposed Rulemaking*, Compatibility Between Cable Systems and Consumer Electronics Equipment, PP Docket No. 00-67, FCC 00-137 (rel. April 14, 2000); *see also* 65 Fed.Reg.. 24671 (April 27, 2000).

[4] Comment by the Office of Advocacy, SBA, dated May 24, 2000.

[5] *See Further Notice of Proposed Rulemaking, Memorandum Opinion & Order, and Declaratory Ruling* in CS Docket No. 97-80, Implementation of Section 304 of the Telecommunications Act of 1996—Commercial Availability of Navigation Devices, FCC 00-341, adopted Sept. 14, 2000.

asserts that its labeling rules would have a minimal impact, because labeling would be standardized, costs would be spread over sufficient quantities of goods as to be insubstantial, and manufacturers could pass costs on to their subscribers. But this ignores the differences in output or customer base that may exist between a small company and a large company. A business with less output or fewer customers might find its per unit costs are higher. The Commission should explore any such potential cost discrepancies based on business size, not simply dismiss them as minimal." As described in the *Report and Order*, pursuant to the new rule, manufacturers must label the pertinent products with labels that meet the requirements of Section 2.925 of the Commission's Rules, 47 C.F.R. § 2.925. Manufacturers of transceivers must already label their equipment to demonstrate compliance with the Commission's equipment authorization rules. Such labels must "be permanently affixed to the equipment and . . . be readily visible to the purchaser at the time of purchase." Section 2.925(d). The manufacturer may choose the means to make the label permanent, including using a nameplate (of material of the manufacturer's choosing) fastened to the equipment with a permanent adhesive. While we do not wish to favor one type of labeling choice over another, we note that use of an adhesive label containing the additional information at issue should not create a significant economic impact for any manufacturer, and in fact probably represents an insignificant economic impact. The cost of paper labels with adhesive, containing brief information specified by rule, would appear to be minimal. Finally, the rules permit manufacturers to request alternative means of labeling. Section 2.925(e).

4. The Commission will send a copy of the present *Report and Order*, including a copy of this final certification, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of the *Report and Order*, including a copy of this final certification, to the Chief Counsel for Advocacy of the SBA. In addition, a copy of the *Report and Order* (or a summary thereof) and this final certification will be published in the Federal Register. *See* 5 U.S.C. § 605(b).

APPENDIX D

Sample Comparison Chart for Digital Cable Ready TV Receiving Devices

	Digital Cable Ready 1	Digital Cable Ready 2	Digital Cable Ready 3
Receives analog basic cable service via direct connection	•	•	•
Receives digital basic cable service via direct connection	•	•	•
Receives digital premium cable service via direct connection	•	•	•
Requires a security card (or "POD") to receive encrypted programming	•	•	•
Includes the 1394 connector		•	**Not Required**
Supports interactive and two-way services **over cable**		•	•
Direct Connection to cable for interactive and two-way services			•

NOTES:

(1) The Cable Ready Digital 2 receiving device may incorporate other digital interfaces in addition to the 1394 connector. The Cable Ready Digital 3 connector may incorporate the 1394 digital connector and/or other digital interfaces.

(2) The 1394 connector may be used for attaching the receiving device to various other consumer appliances, including a digital cable set top box that incorporates the 1394 connector.

Separate Statement of Commissioner Susan Ness

In Re: Compatibility Between Cable Systems and Consumer Electronics Equipment (PP Docket No. 00-67)

While I support this item as a necessary step to further the digital transition, I am concerned that our new labeling regime – which is intended to protect consumers -- will not do so.

Consumers today fully expect to have the capability to receive analog over-the-air signals when they purchase a television set. The same will be true of consumers buying integrated digital TV sets in the future. They will naturally expect a digital TV set to be *capable* of receiving a digital over-the-air signal, even if they initially intend to connect it to the cable system.

Manufacturers may be designing digital TV sets that, under the rules we adopt today, will bear the "digital cable ready" label but are unable to receive an over-the-air digital signal. In other words, what will look like a TV set actually will be incapable of ever receiving an over-the-air digital signal.

Our cable compatibility labels should not exacerbate this problem. By placing the FCC imprimatur on a device that, while cable compatible, is incapable of receiving a digital over-the-air signal, we add to consumer confusion – and consternation. In my opinion, a digital television receiver that carries a label blessed by the Federal Communications Commission should be able to receive an over-the-air digital signal.

The marketplace works best when consumers can make *informed* choices. They should have the opportunity to buy a cheaper TV set if they want to; but they should be told if that set cannot perform the basic function that consumers have grown up to expect.

We can solve this problem. Any integrated, cable-compatible digital television receiver that is incapable of receiving an over-the-air signal should bear a warning to that effect. Consumers then will be alerted at the point of sale whether the costly device they are about to buy has the functionality they expect.

To do otherwise is inconsistent with our duty to the American public and inconsistent with our desire to ensure a smooth transition from analog to digital that works for the American public.

I intend to work with my colleagues, along with the consumer electronics, cable, and broadcasting industries over the next few weeks to address what I believe is a critical issue in the transition to digital broadcasting. Hopefully, we can forge an agreement to address this problem; otherwise I am prepared to take further FCC action to protect the American consumer.