

this action does not impose any enforceable duty, or contain any "unfunded mandates" as described in Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4), or require prior consultation as specified by Executive Order 12875 (58 FR 58093, October 28, 1993) or special consideration as required by Executive Order 12898 (59 FR 7629, February 16, 1994).

Because FFDCA section 408(l)(6) permits establishment of this regulation without a notice of proposed rulemaking, the regulatory flexibility analysis requirements of the Regulatory Flexibility Act, 5 U.S.C. 604(a), do not apply. Nonetheless, the Agency has previously assessed whether establishing tolerances or exemptions from tolerance, raising tolerance levels, or expanding exemptions adversely impact small entities and concluded, as a generic matter, that there is no adverse impact. (46 FR 24950) (May 4, 1981).

Under 5 U.S.C. 801(a)(1)(A) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Title II of Pub. L. 104-121, 110 Stat. 847), EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office prior to publication of the rule in today's **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).

**List of Subjects in 40 CFR Part 180**

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: May 8, 1997.

**Peter Caulkins,**

*Acting Director, Registration Division, Office of Pesticide Programs.*

Therefore, 40 CFR Chapter I is amended as follows:

**PART 180—[AMENDED]**

1. The authority citation for part 180 continues to read as follows:

**Authority:** 21 U.S.C. 346a and 371.

2. Section 180.499 is amended as follows:

i. By redesignating the existing text as paragraph (b), revising the introductory text of newly designated paragraph (b), in the third column to the table by changing "March 15, 1999" to "3/15/99", and alphabetically adding entries for tomatoes; tomato paste and tomato puree.

ii. By correctly alphabetizing the entry for "milk" in the table.

iii. By adding and reserving paragraphs (a), (c), and (d).

**§ 180.499 Propamocarb hydrochloride; tolerances for residues.**

(a) *General.* [Reserved]

(b) *Section 18 emergency exemptions.* Time-limited tolerances are established for residues of the fungicide propamocarb hydrochloride in connection with use of the pesticide under section 18 emergency exemptions granted by EPA. The tolerances will expire and are revoked on the dates specified in the following table.

Commodity	Parts per million	Expiration/Revocation Date
* * *	*	*
Tomatoes .....	0.5	May 15, 1999
Tomato, puree ....	1.0	May 15, 1999
Tomato, paste ....	3.0	May 15, 1999

(c) *Tolerance with regional registrations.* [Reserved]

(d) *Indirect or inadvertent residues.* [Reserved]

[FR Doc. 97-12908 Filed 5-15-97; 8:45 am]  
BILLING CODE 6560-50-F

**DEPARTMENT OF THE INTERIOR**

**Bureau of Land Management**

**43 CFR Part 3800**

[WO-660-4120-02-24 1A]

RIN 1004-AC40

**Mining Claims Under the General Mining Laws; Surface Management**

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Final rule; correction.

**SUMMARY:** The Bureau of Land Management (BLM) published in the **Federal Register** of February 28, 1997, a final rule amending the bonding provisions of the regulations on mining on public lands under the Mining Law of 1872. The preamble of that final rule contained an editing error creating an internal contradiction in the preamble. This document corrects that error.

**EFFECTIVE DATE:** Effective on May 16, 1997.

**ADDRESSES:** Inquiries or suggestions should be sent to the Solid Minerals Group at Director (320), Bureau of Land Management, Room 501 LS, 1849 C Street, N.W., Washington, D.C. 20240.

**FOR FURTHER INFORMATION CONTACT:** Richard Deery, (202) 452-0350.

**SUPPLEMENTARY INFORMATION:** BLM published a final rule in the **Federal Register** of February 28, 1997 (62 FR 9093), amending the bonding provisions of the regulations on hardrock mining on public lands under the Mining Law of 1872 (30 U.S.C. 22 *et seq.*). In the preamble of the final rule, because of an editing error, the final two sentences in the last paragraph of the third column on page 9095 appear to contradict each other in explaining when operators working under an existing notice must provide a certification under the regulations. This document corrects that error.

In rule FR Doc. 97-5016, published on February 28, 1997 (62 FR 9093), make the following correction. On page 9095, in the last paragraph of the third column, revise the final sentence to read as follows: "For existing notices on file with BLM under which operations have not yet begun, the claimant or operator will have to provide the certification before initiating operations."

Dated: May 9, 1997.

**Bob Armstrong,**

*Assistant Secretary of the Interior.*

[FR Doc. 97-12822 Filed 5-15-97; 8:45 am]  
BILLING CODE 4310-84-P

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR Part 73**

[MM Docket No. MM 87-268; FCC 97-116]

**Advanced Television Systems**

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** This *Report and Order* amends the Commission's rules by adopting service rules to implement digital television. The intended effect of this action is to promote rapid conversion to and implementation of digital television. This *Report & Order* contains new or modified information collections subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new or modified information collections contained in this proceeding.

**DATES:** *Effective Dates:* The new rules are effective June 16, 1997. Written comments by the public on the new and/or modified information collections are due July 15, 1997.

**ADDRESSES:** In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judy Boley, Federal Communications Commission, Room 234, 1919 M Street, N.W., Washington, DC 20554, or via the Internet to [jboley@fcc.gov](mailto:jboley@fcc.gov).

**FOR FURTHER INFORMATION CONTACT:** Saul Shapiro, Mass Media Bureau, (202) 418-2600, Gretchen Rubin, Mass Media Bureau, Policy and Rules Division, (202) 418-2120; Mania K. Baghdadi, Mass Media Bureau, Policy and Rules Division, Legal Branch, (202) 418-2130; Dan Bring, Mass Media Bureau, Policy and Rules Division, Policy Analysis Branch, (202) 418-2170, or Gordon Godfrey, Mass Media Bureau, Policy and Rules Division, Engineering Policy Branch, (202) 418-2190. For additional information concerning the information collections contained in this *Report and Order* contact Judy Boley at 202-418-0214, or via the Internet at [jboley@fcc.gov](mailto:jboley@fcc.gov).

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's *Fifth Report and Order* in MM Docket No. 87-268; FCC 97-116, adopted April 3, 1997 and released April 21, 1997. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Center (Room 239), 1919 M Street, N.W., Washington, D.C., and also may be purchased from the Commission's copy contractor, International Transcription Service, Inc., 2100 M Street, N.W., Suite 140, Washington, D.C., 20037, (202) 857-3800.

## Synopsis of Report and Order

### I. Introduction

1. Television has played a critical role in the United States in the second half of the twentieth century. A technological breakthrough—digital television—now offers the opportunity for broadcast television service to meet the competitive and other challenges of the twenty-first century.<sup>1</sup>

<sup>1</sup> This *Fifth Report and Order* follows the adoption of a standard for the transmission of digital television. *Fourth Report and Order* (62 FR 14006, March 25, 1997) in MM Docket No. 87-268, 11 FCC Rcd 17771 (1996) (“*Fourth Report and Order*”). We have previously issued the following documents in this proceeding. *Notice of Inquiry* (52 FR 34259, September 10, 1987) in MM Docket No. 87-268, 2 FCC Rcd 5125, 5127 (1987) (“*First Inquiry*”); *Tentative Decision and Further Notice of Inquiry* in MM Docket No. 87-268, 3 FCC Rcd 6520 (1988) (“*Second Inquiry*”); *First Report and Order* (55 FR 39275, September 26, 1990) in MM Docket No. 87-268, 5 FCC Rcd 5627 (1990) (“*First Order*”); *Notice of Proposed Rule Making* (56 FR 58207, November 18, 1991) in MM Docket No. 87-268, 6

2. The Telecommunications Act of 1996 (“1996 Act”) provided that initial eligibility for any advanced television licenses issued by the Commission should be limited to existing broadcasters, conditioned on the eventual return of either the current 6 MHz channel or the new digital channel. Today we adopt rules to implement the statute. Our rules are designed to give digital television the greatest chance to meet its potential. We recognize the challenges that will be faced by broadcasters in adopting this new technology. Accordingly, we have generally refrained from regulation and have sought to maximize broadcasters’ flexibility to provide a digital service to meet the audience’s needs and desires. Where appropriate, however, we have adopted rules we believe will ensure a smooth transition to digital television for broadcasters and viewers. These rules include an aggressive but reasonable construction schedule, a requirement that broadcasters continue to provide a free, over-the-air television service, and a simulcasting requirement phased in at the end of the transition period. Further, we recognize that digital broadcasters remain public trustees with a responsibility to serve the public interest.

### II. Issue Analysis

#### A. Goals

3. Digital technology holds great promise. It allows delivery of brilliant, high-definition, multiple digital-quality programs, and ancillary and supplementary services such as data transfer. In recent years, competition in the video programming market has dramatically intensified. Cable, Direct Broadcast Satellite (DBS), Local Multipoint Distribution System (LMDS), wireless cable, Open Video Systems

FCC Rcd 7024 (1991) (“*Notice*”); *Second Report and Order/Further Notice of Proposed Rule Making* in MM Docket No. 87-268, 7 FCC Rcd 3340 (1992) (“*Second Report/Further Notice*”); *Second Further Notice of Proposed Rule Making* (57 FR 38652, August 26, 1992) in MM Docket No. 87-268, 7 FCC Rcd 5376 (1992) (“*Second Further Notice*”); *Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making* (57 FR 53588, November 12, 1992) in MM Docket No. 87-268, 7 FCC Rcd 6924 (1992) (“*Third Report/Further Notice*”); *Fourth Further Notice of Proposed Rule Making/Third Notice of Inquiry* (60 FR 42130, August 15, 1995) in MM Docket No. 87-268, 10 FCC Rcd 10541 (1995) (“*Fourth Further Notice/Third Inquiry*”); *Fifth Further Notice of Proposed Rule Making* (61 FR 26864, May 29, 1996) in MM Docket No. 87-268, 11 FCC Rcd 6235 (1996) (“*Fifth Further Notice*”); *Sixth Further Notice of Proposed Rule Making* (61 FR 43209, August 21, 1996) in MM Docket No. 87-268, 11 FCC Rcd 10968 (1996) (“*Sixth Further Notice*”). We note that we also adopt today the *Sixth Report and Order*, MM Docket No. 87-268, FCC 97-115, released April 21, 1997 (“*Sixth Report and Order*”).

(OVS) providers, and others vie, or will soon vie, with broadcast television for audience. Many operators in those services are poised to use digital. The viability of digital broadcast television will require millions of Americans to purchase digital television equipment. Because of the advantages to the American public of digital technology—both in terms of services and in terms of efficient spectrum management—our rules must strengthen, not hamper, the possibilities for broadcast DTV’s success.

4. In the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995), we outlined the goals of: “(1) preserving a free, universal broadcasting service; (2) fostering an expeditious and orderly transition to digital technology that will allow the public to receive the benefits of digital television while taking account of consumer investment in NTSC television sets; (3) managing the spectrum to permit the recovery of contiguous blocks of spectrum, so as to promote spectrum efficiency and to allow the public the full benefit of its spectrum; and (4) ensuring that the spectrum—both ATV channels and recovered channels—will be used in a manner that best serves the public interest.” In the context of the implementation of a DTV standard, we also enumerated the goals: “(1) to ensure that all affected parties have sufficient confidence and certainty in order to promote the smooth introduction of a free and universally available digital broadcast television service; (2) to increase the availability of new products and service to consumers through the introduction of digital broadcasting; (3) to ensure that our rules encourage technological innovation and competition; and (4) to minimize regulation and assure that any regulations that we do adopt remain in effect no longer than necessary.” These goals can be distilled into the two essential objectives that underlie the decisions we make today.

5. First, we wish to promote and preserve free, universally available, local broadcast television in a digital world. Only if DTV achieves broad acceptance can we be assured of the preservation of broadcast television’s unique benefit: free, widely accessible programming that serves the public interest. DTV will also help ensure robust competition in the video market that will bring more choices at less cost to American consumers. Particularly given the intense competition in video programming, and the move by other video programming providers to adopt digital technology, it is desirable to encourage broadcasters to offer digital

television as soon as possible. We make decisions today designed to promote the viability of digital television services. Digital broadcasters must be permitted the freedom to succeed in a competitive market, and by doing so, attract consumers to digital. In addition, broadcasters' ability to adapt their services to meet consumer demand will be critical to a successful initiation of DTV.

6. Second, we wish to promote spectrum efficiency and rapid recovery of spectrum. Decisions that promote the success of digital television—our first goal—promote this goal as well. The more quickly that broadcasters and consumers move to digital, the more rapidly spectrum can be recovered and then be reallocated or reassigned, or both. The faster broadcasters roll out digital television, the earlier we can recover spectrum.

7. Our decisions today further these goals. They ensure that broadcasters have more flexibility in their business. Broadcasters will be able to experiment with innovative offerings and different service packages as they continue to provide at least one free program service and meet their public-interest obligations. We choose to impose few restrictions on broadcasters and to allow them to make decisions that will further their ability to respond to the marketplace. We leave to broadcasters' business judgment such decisions as whether to provide high definition television or whether, initially, to simulcast the NTSC stream on DTV, and what and how many ancillary and supplementary services to provide. To aid the launch of digital services, we provide for a rapid construction of digital facilities by network-affiliated stations in the top markets, in order to expose a significant number of households, as early as possible, to the benefits of DTV. We require those most able to bear the risks of introducing digital television to proceed most quickly. Our decisions here will foster the swift development of DTV, which should enable us to meet our target of ending NTSC service by 2006. To permit careful monitoring of the development of digital television and an opportunity to reassess the decisions we make today, we intend to conduct a review of DTV every two years until the cessation of NTSC service.

#### B. Channel Bandwidth

8. *Background.* In the *Fourth Further Notice/Third Inquiry*, (60 FR 42130, August 15, 1995), we noted that we had previously decided that DTV would be introduced by assigning existing broadcasters a temporary channel on

which to operate a DTV station during the transition period.<sup>2</sup> We also noted that the DTV transmission system was designed for a 6 MHz channel and added that "we continue to believe that providing 6 MHz channels for ATV purposes represents the optimum balance of broadcast needs and spectrum efficiency."<sup>3</sup> Nonetheless, we invited comment on any means of achieving greater spectrum efficiency, and, in this section, we will discuss whether 6 MHz channels should be allotted.

9. *Comments.* All broadcasters filing comments support affording a second 6 MHz channel per broadcaster for DTV. Joint Broadcasters, for example, state that the entire 6 MHz is required; assigning less would deprive the public of HDTV and set back the transition, because the Grand Alliance system presupposes 6 MHz channels, and anything different would require an entirely new design and testing program. Additionally, equipment manufacturers generally support the provision of 6 MHz channels for DTV purposes, noting that 6 MHz of spectrum is required for HDTV broadcasts.

10. However, Media Access Project, et al. ("MAP") argues that the Commission should provide broadcasters only enough spectrum to provide one "free" digital program service, either by allocating less than 6 MHz channels to broadcasters, by allocating the spectrum to others and only affording broadcasters "must carry" rights; or by allocating the spectrum to broadcasters but requiring them to lease out excess capacity to unaffiliated programmers. Further, Home Box Office ("HBO") asserts that if the Commission determines that the public interest demands Standard Definition Television ("SDTV") or other auxiliary applications, it must take another look at whether an entire 6 MHz slice of new spectrum should go to incumbent broadcasters.

11. *Decision.* We invited comment in the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995) on any means of achieving greater spectrum efficiency. Based on the comments, we continue to believe that providing 6

<sup>2</sup> *Fourth Further Notice/Third Inquiry*, (60 FR 42130, August 15, 1995) *supra* at 10543. We decided to continue use of the 6 MHz channel early in this proceeding. *Third Report/Further Notice* (57 FR 53588, November 12, 1992), *supra* at 6926; see also *First Order*, *supra* at 5627-29.

<sup>3</sup> *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995), *supra* at 10543. Indeed, the DTV Standard subsequently adopted in the *Fourth Report and Order* (62 FR 14006, March 25, 1997) ("DTV Standard") is predicated upon the use of a 6 MHz channel.

MHz channels for DTV purposes "represents the optimum balance of broadcast needs and spectrum efficiency." We do not believe that greater spectrum efficiency can be achieved by adopting a different channel size. Indeed, use of 6 MHz channels would facilitate spectrum efficiency because making the DTV channel the same width as the analog channel will afford greater flexibility at the end of the transition in terms of the choice of channel the broadcaster retains for DTV purposes.

12. Moreover, contrary to those comments that disagreed with allotting 6 MHz channels for DTV, we believe that the use of 6 MHz channels is necessary to provide viewers and consumers the full benefits of digital television made possible by the DTV Standard, including high definition television ("HDTV"), standard definition television, and other digital services. The DTV Standard was premised on the use of 6 MHz channels. To specify a different channel size at this late date would not promote our goals in adopting the DTV Standard and would prolong the conversion to DTV. Specifically, we believe that failing to specify a 6 MHz channel would undermine our goals, expressed in the *Fourth Report and Order* (62 FR 14006, March 25, 1997), of fostering an expeditious and orderly transition to digital technology and managing the spectrum to permit the recovery of contiguous blocks of spectrum and promote spectrum efficiency. The conversion to DTV would undoubtedly be significantly delayed if we set aside the longstanding expectations of the parties, on which they have based the technology and established their plans, and specified a different channel bandwidth. Accordingly, we reaffirm our earlier judgment and will allot 6 MHz channels for DTV.

#### C. Eligibility

13. *Background.* We proposed to limit initial eligibility for DTV channels to existing broadcasters. Our proposed criteria for existing broadcasters included full-service television broadcast station licensees, permittees authorized as of October 24, 1991, and parties with applications for a construction permit on file as of October 24, 1991, who are ultimately awarded a full-service broadcast license. After release of the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995), Congress statutorily addressed eligibility in the 1996 Act. Congress instructed the Commission to limit the initial eligibility for advanced television licenses to persons that, as of the date

of the issuance of the licenses, are licensed to operate a television broadcast station or hold a permit to construct such a station. The 1996 Act did not change the fact that the Commission lacks statutory authority to auction broadcast spectrum.

14. *Comments.* We sought comment on the potential impact of the eligibility restriction on the Commission's policy of fostering programming and ownership diversity. Few commenters address this topic. However, some commenters address the basic issue of the eligibility restriction. For example, some argue that allowing broadcasters to offer subscription services without opening up that opportunity to competitors would violate the legal principles enunciated in *Ashbacker Radio Corporation v. FCC*, 326 U.S. 327 (1945), discussed below. Others maintain that the Commission faces an *Ashbacker* problem unless it mandates that broadcasters provide HDTV. General Instrument argues that "allowing existing broadcasters too much 'flexible use' of the 6 MHz ATV allocation raises the *Ashbacker* problem by changing the primary service provided rather than merely modifying existing licenses," but that the Commission could avoid *Ashbacker* problems by requiring that the predominant use of the DTV spectrum be for HDTV transmission. HBO argues that if we were to allow the DTV channel to be put to uses other than HDTV, for which broadcasters have no more established interest or expertise than potential competing applicants, the public interest rationale for granting the spectrum to incumbents without a competitive process would evaporate.

15. Another eligibility issue raised by commenters concerns the restriction of initial eligibility to full-service licensees. LPTV commenters such as Abacus Television point out the contribution that LPTV stations make in providing television service to underserved areas as well as the local and specialized nature of the services they provide. These comments also contend that the Commission has long found that diversification of mass media ownership serves the public interest by promoting diversity of program and service viewpoints and by preventing undue concentration of economic power. According to Abacus Television, excluding LPTV from the analog to digital transition would undermine these principles. Further, Abacus argues, it would exclude the vast majority of minority television licensees and permittees and is antithetical to increasing ownership diversity. Abacus argues that the Commission should

perform a market-by-market analysis to determine which LPTV stations could be accommodated; absent that, it could minimize the effect on LPTV stations by adding a second phase to the process of creating a Table of Allotments to address the accommodation of LPTV service next, after it has begun the conversion process for full power television licensees. It offers suggestions on how to carry out this phase. WatchTV, Inc. also argues that the Commission should make unused digital channels available to existing low power operators on the same terms and conditions as it may adopt for small market broadcasters and educational licensees before it allows new entrants to apply. Additionally, White Eagle Partners believes that LPTV stations should be eligible to receive 6 MHz DTV channels.

16. Still other LPTV commenters argue that neither LPTV stations nor full service stations should be afforded a second 6 MHz channel. Community Broadcasters Association ("CBA") believes that a dual channel DTV scenario would be an inefficient use of spectrum, requiring not only immense private investment, but also leading to a host of logistical and other problems that will negate many of the benefits of DTV. CBA argues that full power and LPTV stations should be permitted to convert to DTV on their present channel at any time.

17. *Decision.* In the 1996 Act, Congress specifically addressed the eligibility issue. Congress provided that the Commission "should limit the initial eligibility for [DTV] licenses to persons that, as of the date of such issuance, are licensed to operate a television broadcast station or hold a permit to construct a station (or both) \* \* \*." In comments filed before passage of the 1996 Act, some parties argue that granting incumbent broadcasters the exclusive right to apply for the DTV spectrum raises potential problems under *Ashbacker Radio Corporation v. FCC*, 326 U.S. 327 (1945), and its progeny. Other commenters argue similarly that *Ashbacker* concerns are raised unless the Commission imposes an HDTV mandate. However, given Congress' explicit direction, there is now no statutory basis to question the Commission's authority to limit initial eligibility to existing broadcasters. Following Congress' direction, we determine that initial eligibility should be limited to those broadcasters who, as of the date of issuance of the initial licenses, hold a license to operate a

television broadcast station or a permit to construct such a station, or both.<sup>4</sup>

18. We will continue our previously adopted policy to limit initial eligibility for DTV licenses to existing full-power broadcasters. We previously determined that there is insufficient spectrum to include LPTV stations and translators, which are secondary under our rules and policies, to be initially eligible for a DTV channel. As we noted in the *Sixth Further Notice* (61 FR 43209), in order to provide DTV allotments for existing full service stations, it will be necessary to displace LPTV stations and TV translator stations to some degree, especially in major markets. We have not been able to find a means of resolving this problem. However, we note that limiting initial eligibility to full-power broadcasters does not necessarily exclude LPTV stations from the conversion to digital television. Moreover, in the *Sixth Further Notice* (61 FR 43209), we made a number of proposals to mitigate the impact on LPTV stations, and, in the *Sixth Report and Order*, we adopt a number of measures intended to minimize the impact of DTV implementation on LPTV service.

#### D. Definition of Service

##### 1. Spectrum Use

19. *Background.* The *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995) reaffirmed our intention to preserve and promote universal, free, over-the-air television. We recognized that broadcast television has become an important part of American life and thus stated "we envision that the 6 MHz channel earmarked for [DTV] will be used for free, over-the-air broadcasting." We also recognized the increased flexibility that DTV offered broadcasters and noted that "allowing at least some level of flexibility would increase the ability of broadcasters to compete in an increasingly competitive marketplace, and would allow them to serve the public with new and innovative services."

20. The DTV Standard, adopted by the Commission in the *Fourth Report and*

<sup>4</sup> Our eligibility criteria are consistent with the provisions of section 336 of the 1996 Act. 47 U.S.C. § 336. We have made the initial assignment of channels in the accompanying *Sixth Report and Order* and adopted criteria for the allotment of additional DTV channels. We will give particular consideration for assigning temporary DTV channels to new licensees who applied on or before October 24, 1991, given the reliance that these parties may have placed on rules we adopted before passage of the 1996 Act. *Second Report/Further Notice* (57 FR 21755, May 22, 1992), supra, at 3343, clarified, *Third Report/Further Notice* (57 FR 53588, November 12, 1992), supra at 6932-33.

*Order* (62 FR 14006, March 25, 1997), permits broadcasters to offer a variety of services. It allows broadcasters to offer free television of higher resolution than analog technology. It allows the broadcast of at least one, and under some circumstances two, high definition television programs; and it allows "multicasting," the simultaneous transmission of three, four, five, or more digital programs. The Standard also allows for the broadcast of CD-quality audio signals. And it permits the rapid delivery of large amounts of data: an entire edition of the local newspaper in less than two seconds, sports information, computer software, telephone directories, stock market updates, interactive educational materials and, indeed, any information that can be translated into digital bits. In addition to allowing broadcasters to transmit video, voice, and data simultaneously, the DTV Standard allows broadcasters to do so dynamically, meaning that they can switch back and forth quickly and easily. For example, a broadcaster could transmit a news program consisting of four separate SDTV programs for local news, national news, weather and sports; while interrupting that programming with a single high definition television commercial with embedded data about the product; or transmit a motion picture in a high definition format, while simultaneously using the excess capacity for transmission of data unrelated to the movie.

21. In light of the flexibility and new capabilities of digital television, we asked to what extent we should permit broadcasters to use their DTV spectrum for uses other than free, over-the-air television. Recognizing that broadcasters are currently allowed to use a portion of their broadcast spectrum for ancillary or supplementary uses that do not interfere with the primary broadcast signal, we asked whether we should permit such uses of the DTV spectrum, and, if so, how such uses should be defined and what portion of the DTV system's capacity should be allowed for such ancillary and supplementary services. Assuming we permitted ancillary and supplementary services, we also asked to what extent we should allow broadcasters to use DTV spectrum for services that go beyond traditional broadcast television or ancillary and supplementary uses analogous to those allowed under the current regulatory structure. We also asked whether broadcasters should be permitted to provide nonbroadcast and/or

subscription services, and, if permitted, how such services should be defined, how much of the DTV capacity should be allowed for such uses, and what, if any, regulation would be appropriate for such services.

22. *Comments.* Most commenters support affording flexibility to broadcasters to provide ancillary and supplementary services. Joint Broadcasters favor the provision of any ancillary and supplementary services other than those limited by the Telecommunications legislation then pending. Viacom urges that DTV licensees should be authorized to explore the full potential of the ATSC DTV system as long as those uses do not adversely affect the broadcaster's free video service. AAPTS/PBS favors ancillary broadcast and nonbroadcast use of the DTV channel, noting that flexible use will serve the public interest by helping to spur development of new technologies and to provide greater opportunities for noncommercial stations to enhance their public service to their respective communities. A noncommercial station could, for example, utilize digital transmission to distribute program-related course materials, textbooks, student and teacher guides, computer software and content areas of the World Wide Web as part of the station's instructional programming. Further, noncommercial stations could use ancillary and supplementary services, without regard to the educational content, as a revenue source to support nonprofit services and operations and the transition to DTV.

23. Microsoft argues that licensees should be given maximum flexibility to provide a wide variety of services and any definition of free over-the-air broadcasting should be narrowly defined in the DTV environment. Texas Instruments, Inc. ("Texas Instruments") argues that it is premature for the Commission to regulate the mix of DTV services by requiring a certain amount of capacity to be used for video programming; freedom from regulatory restraints will enhance television's functionality and appeal beyond entertainment to encompass new and unforeseen services.

24. Equipment manufacturers such as General Instrument, Motorola, Thomson, and Zenith, and EIA urge that the Commission should permit flexible use of the DTV channel consistent with the preservation of free over-the-air television and as long as there is a substantial commitment to HDTV. Motorola, however, supports a more restrictive definition of ancillary services. The Digital Grand Alliance states that, while the predominant use

should be for free over-the-air television and a minimum number of HDTV hours should be broadcast, the Commission should permit flexible uses of the DTV channel. Cohen, Dippell and Everist argues that a broadcaster should be permitted to provide new and innovative services that do not cause objectionable interference to existing users, provided that the primary use is broadcasting to the general public.

25. NYNEX and Personal Communications Industry Association ("PCIA") urge that the primary use of the DTV channel should be free over-the-air broadcasting. NYNEX urges that allowing broadcasters to provide nonbroadcast and subscription services would threaten free, universal broadcasting and should be permitted only as a residual use of spectrum capacity. PCIA urges that a DTV licensee should be permitted to offer broadcast-related services, such as closed captioning, pay programming, broadcast or narrowcast audio service, and home shopping, but should not be allowed to offer mobile radio services like paging without open competition for DTV licenses by all qualified applicants. Golden Orange suggests that the Commission should permit all types of broadcast ancillary services that do not cause interference to the primary HDTV requirement it urges the Commission to adopt, but that the Commission should not permit nonbroadcast services or non-TV subscription services. HBO argues that the second channel should be used for HDTV and opposes affording broadcasters flexible use of the channel, but adds that if the Commission permits flexibility in the use of the channel, it should nonetheless require that a substantial portion of the day be devoted to HDTV programming. The Benton Foundation opposes spectrum flexibility as affording broadcasters an unfair competitive advantage over competitors and argues that the principal use of the second channel, defined as a minimum of 75% of capacity, should be for broadcast.

26. Broadcasters, as a group, express their staunch support for the continuation of our tradition of universal and free broadcast television. For example, the comments of the Joint Broadcasters, a group constituting a wide cross-section of broadcast television stations and networks, emphasize broadcasters' commitment to provision of free television service. ALTV, Pacific FM, and Busse argue that broadcasters should be required to offer at least one free over-the-air channel enhanced by digital technology but should otherwise be unfettered as to the

services they provide. MAP and the Benton Foundation argue that because broadcasters will receive free and exclusive use of the broadcast spectrum, free, over-the-air broadcasting should comprise no less than 75% of a broadcaster's capacity.

27. *Decision.* As we have noted before, an overarching goal of this proceeding is to promote the success of a free, local television service using digital technology. Broadcast television's universal availability, appeal, and the programs it provides—for example, entertainment, sports, local and national news, election results, weather advisories, access for candidates and public interest programming such as education television for children—have made broadcast television a vital service. It is a service available free of charge to anyone who owns a television set, currently 98% of the population.

28. We expect that the fundamental use of the 6 MHz DTV license will be for the provision of free over-the-air television service. In order to ease the transition from our current analog broadcasting system to a digital system, we will require broadcasters to provide on their digital channel the free over-the-air television service on which the public has come to rely. Specifically, broadcasters must provide a free digital video programming service the resolution of which is comparable to or better than that of today's service and aired during the same time periods that their analog channel is broadcasting.<sup>5</sup>

29. We wish to preserve for viewers the public good of free television that is widely available today. At the same time, we recognize the benefit of permitting broadcasters the opportunity to develop additional revenue streams from innovative digital services. This will help broadcast television to remain a strong presence in the video programming market that will, in turn, help support a free programming service. Thus, we will allow broadcasters flexibility to respond to the demands of their audience by providing ancillary and supplementary services that do not derogate the mandated free, over-the-air program service. Ancillary and supplementary services could include, but are not limited to, subscription television programming, computer software distribution, data transmissions, teletext, interactive services, audio signals, and any other services that do not interfere with the required free service.

<sup>5</sup> For example, a broadcaster who provides programming on its analog channel from 6:00 am until midnight must provide a free over-the-air digital signal during those hours.

30. This decision is supported by the overwhelming weight of the record. Consistent with precedent that has treated telecommunications services provided by an NTSC station other than the regular television program service as ancillary, we will consider as ancillary and supplementary any service provided on the digital channel other than free, over-the-air services. In addition, we will not impose a requirement that the ancillary and supplementary services provided by the broadcaster must be broadcast-related.

31. The approach we take here, of allowing broadcasters flexibility to provide ancillary and supplementary services is supported both generally and specifically by the 1996 Act, enacted after issuance of the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995). In general, the 1996 Act seeks "[t]o promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." More importantly, the 1996 Act specifically gives the Commission discretion to determine, in the public interest, whether to permit broadcasters to offer such services. section 336(a)(2) of the Communications Act, contained in section 201 of the 1996 Act, provides that if the Commission issues additional licenses for advanced television services, it "shall adopt regulations that allow the holders of such licenses to offer such ancillary or supplementary services on designated frequencies as may be consistent with the public interest, convenience, and necessity."

32. Section 336(b)(2) sets out the specific parameters of our authority to permit ancillary and supplementary services,<sup>6</sup> and the approach we take

<sup>6</sup> Section 336(b) of the Communications Act, also added by section 201 of the 1996 Act, provides that in prescribing the regulations required by Section 336(a), the Commission shall:

(1) only permit such licensee or permittee to offer ancillary or supplementary services if the use of a designated frequency for such services is consistent with the technology or method designated by the Commission for the provision of advanced television services;

(2) limit the broadcasting of ancillary or supplementary services on designated frequencies so as to avoid derogation of any advanced television services, including high definition television broadcasts, that the Commission may require using such frequencies;

(3) apply to any other ancillary or supplementary service such of the Commission's regulations as are applicable to the offering of analogous services by any other person, except that no ancillary or supplementary service shall have any rights to carriage under section 614 or 615 or be deemed to be a multichannel video programming distributor for purposes of section 628;

(4) adopt such technical or other requirements as may be necessary or appropriate to assure the

here fully complies with those parameters. Thus, under section 336(b)(2), the Commission is required to limit ancillary and supplementary services to avoid derogation of any advanced television services that the Commission may require. The Commission has exercised its discretion and is requiring broadcasters to continue to provide the free over-the-air service on which the public has come to rely. We herein require that any ancillary and supplementary services broadcasters provide will not derogate that required service. Further, section 336(b)(1) requires that the Commission may only permit broadcasters to offer ancillary or supplementary services "if the use of a designated frequency for such services is consistent with the technology or method designated by the Commission for the provision of advanced television services\* \* \*."

33. Moreover, we believe that the approach we take here will serve the public interest by fostering the growth of innovative services to the public and by permitting the full possibilities of the DTV system to be realized. One of our goals is to promote spectrum efficiency. Encouraging an expeditious transition from analog to digital television and a quick recovery of spectrum will promote that goal. By permitting broadcasters to assemble packages of services that consumers desire, we will promote the swift acceptance of DTV and the penetration of DTV receivers and converters. That, in turn, will help promote the success of the free television service. As discussed above, digital television promises a wealth of possibilities in terms of the kinds and numbers of enhanced services that could be provided to the public. Indeed, we believe that giving broadcasters flexibility to offer whatever ancillary and supplementary services they choose may help them attract consumers to the service, which will, in turn, hasten the transition. In addition, the flexibility we authorize should encourage entrepreneurship and innovation. For example, it may encourage the development of compression technologies that could allow even more digital capacity on a 6 MHz channel, paving the way for multiple high definition programs and more free

quality of the signal used to provide advanced television services, and may adopt regulations that 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.

(6) 47 U.S.C. § 336(b).

programming than would otherwise be offered.

34. There is no public interest harm in permitting ancillary and supplementary services; indeed, to the contrary, allowing such services contributes to efficient spectrum use and can expand and enhance use of existing spectrum. In this case, technological advancements, *i.e.*, digital technology, have made it possible for broadcasters to provide continuing free, over-the-air service and still have the capacity to provide other innovative services. It would be contrary to the public interest to handicap broadcasters in providing these services and to deprive consumers of the opportunity to purchase the services they desire. We note, however, that we will review our flexible approach to permitted ancillary and supplementary services during the periodic reviews established herein and make adjustments to our rules as needed.

35. We note that the 1996 Act requires the Commission to establish a fee program for ancillary or supplementary services provided by digital licensees if subscription fees are required in order to receive such services or if the licensee directly or indirectly receives compensation from a third party in return for transmitting material furnished by such third party (other than commercial advertisements used to support broadcasting for which a subscription fee is not required). We will issue a Notice to consider proposals as to how that statutory provision should be implemented.

36. In addition, consistent with the 1996 Act, non-broadcast services provided by digital licensees will be regulated in a manner consistent with analogous services provided by other persons or entities. We already follow such an approach with respect to ancillary and supplementary services provided by NTSC licensees, for example, on the VBI and the video portion of the analog signal.

## 2. High Definition

37. *Background.* In the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995), the Commission noted that the Grand Alliance system would provide broadcasters new flexibility and new capabilities to provide not only high definition television but also multiple program streams, as well as a variety of nonvideo and/or subscription-based services. After noting that allowing at least some level of flexibility would increase the ability of broadcasters to compete in an increasingly competitive marketplace, would permit new and innovative

services to be provided to the public, and would allow for a more rapid transition to digital broadcasting, the Commission requested comment as to whether it should require broadcasters to provide a minimum amount of high definition television and, if so, what minimum amount should be required.

*Comments.* Many commenters are opposed to a minimum HDTV requirement. Commenters urging the Commission not to apply a minimum HDTV requirement but rather to leave that determination to the marketplace and thus to broadcasters and viewers include the National Association of Broadcasters ("NAB"), ALTV, the Benton Foundation, Microsoft Corporation, Telemundo Group, Inc. ("Telemundo"), and APTS/PBS. NAB notes that mandating a certain amount of HDTV could impair broadcasters' ability rapidly to fuel development of the DTV market with complementary program offerings and could prolong the transition to digital television. NAB states: "By providing maximum latitude, the Commission will encourage development of diverse new programming services that will facilitate the most rapid acceptance of ATV and lead to the most rapid return of NTSC spectrum." ALTV states that a minimum HDTV requirement would be burdensome and, moreover, superfluous because the broadcast industry has maintained its commitment to implement HDTV. According to ALTV, independent stations rely on syndicated and local programming, which is less likely to be produced in an HDTV format, so a minimum HDTV requirement would have a disproportionately burdensome impact on independents. ALTV states that any minimum HDTV requirement, if and when justified by future circumstances, should be adopted later in the transition, as more HDTV programming comes on the market. Telemundo notes that a minimum HDTV requirement would negatively impact foreign language stations and networks, many of which feature programming produced outside the United States, where HDTV production is likely to lag domestic HDTV production. APTS and PBS, in joint comments, oppose a minimum HDTV requirement, noting that the Commission can rely on broadcasters and public television's commitment to HDTV, and argue that if the Commission adopts an HDTV requirement, it should be "liberally waived" for noncommercial stations (particularly those analog stations that may share a DTV channel in the transition). The Benton Foundation argues that

mandating an HDTV minimum serves no public interest because it does not increase the number of voices in the marketplace or contribute to the civic discourse of democracy.

39. Support for a minimum HDTV requirement is expressed by three networks, HBO, NYNEX Corporation, receiver manufacturers, Viacom, Golden Orange Broadcasting Co., Inc. ("Golden Orange"), and the National Consumers League. Supporters of a minimum requirement generally argue that a requirement will help promote the early availability of HDTV programming, create demand for HDTV receivers, stimulate the market, and speed the transition. Golden Orange, for example, notes that without HDTV, the public will not be motivated to buy receivers. HBO argues that the legal and policy principles that justify awarding incumbent broadcasters a second channel for DTV do not permit broadcasters to use this second channel for anything other than HDTV programming, and, if the FCC allows other than HDTV programming, it should require that a substantial portion of the broadcast day, especially during dayparts and prime time, be devoted exclusively to HDTV. These commenters vary on the amount of HDTV programming that should be required and on how the minimum should be implemented.

40. While believing that the marketplace is the best determinant of the optimum balance between HDTV and other DTV services, Joint Broadcasters support a minimum HDTV requirement if necessary to assure HDTV a fair chance in the marketplace. Joint Broadcasters also declare their support for HDTV as the "centerpiece" of the digital television system and note the commitment of many broadcast organizations to provide HDTV. MAP, which supports allotting only enough capacity to broadcasters to provide one free, over-the-air, digital program service, argues accordingly that there is little reason for the Commission to mandate HDTV. However, MAP notes that the only justification for affording broadcasters exclusive use of the entire 6 MHz of spectrum is that they will deliver significant amounts of HDTV programming.

41. *Decision.* Our decisions today, and our previous adoption of the DTV Standard, give broadcasters the opportunity to provide high definition television programming, but we decline to impose a requirement that broadcasters provide a minimum amount of such programming and, instead, leave this decision to the discretion of licensees. The DTV

Standard will allow broadcasters to offer the public high definition television, as well as a broad variety of other innovative services. We believe that we should allow broadcasters the freedom to innovate and respond to the marketplace in developing the mix of services they will offer the public. In this regard, we endeavor to carry out the premises of the 1996 Act which, as noted above, seeks "[t]o promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." There is no reason to involve the government in a decision that should properly be based on marketplace demand. The 1996 Act specifically affords the Commission discretion whether or not to require minimum high resolution television programming.<sup>7</sup>

42. Our decisions to adopt the DTV Standard and to use 6 MHz channels permit broadcasters to provide high definition television in response to viewer demand. If we do not mandate a minimum amount of high resolution television, we anticipate that stations may take a variety of paths: some may transmit all or mostly high resolution television programming, others a smaller amount of high resolution television, and yet others may present no HDTV, only SDTV, or SDTV and other services. We do not know what consumers may demand and support. Since broadcasters have incentives to discover the preferences of consumers and adapt their service offerings accordingly, we believe it is prudent to leave the choice up to broadcasters so that they may respond to the demands of the marketplace. A requirement now could stifle innovation as it would rest on *a priori* assumptions as to what services viewers would prefer. Broadcasters can best stimulate consumers' interest in digital services if able to offer the most attractive programs, whatever form those may take, and it is by attracting consumers to digital, away from analog, that the spectrum can be freed for additional uses. Further, allowing broadcasters flexibility as to the services they provide will allow them to offer a mix of services that can promote increased consumer acceptance of digital television, which, in turn, will increase broadcasters' profits, which, in turn, will increase incentives to proceed faster with the transition.

43. We have also been persuaded by the arguments that a minimum high definition television requirement would be burdensome on some broadcasters. We note the arguments of ALTV and Telemundo as to the difficulties a minimum high resolution television requirement might impose on independent stations and foreign language stations, respectively. We acknowledge the contributions of such stations and the programming they provide to the diversity of our broadcast television service and hesitate to impose a requirement that might make it more difficult for such stations to convert to digital television, perhaps even undermining their ability to do so. We are not convinced that high definition television programming should be mandated where to mandate it might impose significant burdens on stations, particularly where, as will be discussed below, it appears that the marketplace will provide high definition television programming even absent a governmental requirement to that effect.

44. We note that some commenters argued that a high definition television mandate is necessary to give program producers and equipment manufacturers the necessary incentives to support high resolution television, and to provide viewers and consumers enough high resolution television programming to foster demand for such programming and to drive DTV receiver purchases. To the contrary, however, we believe that a minimum high definition television requirement is unnecessary to achieve these goals. We note in this regard that broadcasters and networks have emphasized their commitment to high definition television. We find nothing in the record that identifies a market failure or other reason to impose a governmental requirement for high definition television. High definition television will afford broadcasters an important tool in the increasingly competitive video programming market. There is no reason to believe that a government mandate is necessary to ensure that high definition television gets a fair chance in the marketplace.

#### *E. Public Interest Obligations*

45. *Background.* As we stated in the *Fourth Further Notice* (60 FR 42130, August 15, 1995), the rules imposing public interest obligations on broadcast licensees originate in the statutory mandate that broadcasters serve the "public interest, convenience, and necessity," as well as other provisions of the Communications Act. These obligations include the requirements that broadcasters must provide "reasonable access" to candidates for

federal elective office and must afford "equal opportunities" to candidates for any public office and that weekly they must provide three hours of children's educational programming. Licensees must also adhere to restrictions on the airing of indecent programming and must comply with the 1996 Act provisions relating to the rating of video programming. In the *Fourth Further Notice/Third Inquiry*, the Commission noted that these current public interest rules were developed under the analog model and therefore were shaped by the limitations inherent in analog technology. The Commission sought comment on whether the greater capabilities afforded by digital technology should affect licensees' obligations to serve the public interest, and if so, how those obligations might be adapted to the digital context.

46. *Comments.* Commenters generally agree that existing public interest obligations should continue to apply, at the very least, to free, over-the-air programming on DTV. They differ greatly, however, on whether, and if so, how, the public interest obligation should be applied and possibly expanded in a DTV world. Joint Broadcasters argue that public interest obligations should continue to apply to NTSC through the transition, and to all the DTV services, but that there is no need to impose additional obligations on the transition channel. ALTV comments that on DTV, free broadcast television service should continue to be subject to the public interest obligations now applied to NTSC, but that no public interest obligations should apply to nonbroadcast services. General Instrument argues that public-interest obligations should attach to free, over-the-air broadcasting on DTV, but that for provision of subscription services, broadcasters should be required to pay a fee to compensate the public.

47. Some commenters offered specific proposals on how the broadcasters' public-interest obligations could be reconceptualized and adapted in light of the new possibilities offered by digital technology. MAP argues that public interest obligations should apply to each program service, including subscription services, provided over DTV spectrum. MAP proposes that broadcasters be required to provide "new and different public service in exchange for the opportunity to convert to digital television, including free time for political candidates, noncommercial public access, and dedication of 20% of total program time to children's educational and informational programming." Alliance for Community Media suggests that, at a minimum,

<sup>7</sup> 47 U.S.C. 336(b)(2), adopted by section 201 of the 1996 Act.

public interest guidelines should contain a quantitative measure of programming including: local news and information; educational programs for children and adults; material helpful to nonprofit, charitable, health, or social-service organizations; and programs to allow elected officials and nonprofit organizations to communicate to the community. The Benton Foundation urges that broadcasters be required to provide, for example, at least six hours of children's educational television, free time for candidates, and access to programming time by members of the community.

48. *Decision.* In this proceeding we seek to promote the successful transition of analog broadcast television into a digital broadcast television service that serves the public interest. Broadcasters have long been subject to the obligation to serve the "public interest, convenience and necessity."<sup>8</sup> In the 1996 Act, Congress provided that broadcasters' public interest obligations extend into the digital environment:

(d) Public Interest Requirement.—Nothing in this section shall be construed as relieving a television broadcasting station from its obligation to serve the public interest, convenience, and necessity. In the Commission's review of any application for renewal of a broadcast license for a television station that provides ancillary or supplementary services, the television licensee shall establish that all of its program services on the existing or advanced television spectrum are in the public interest.

In enacting this provision, Congress clearly provided that broadcasters have public interest obligations on the program services they offer, regardless of whether they are offered using analog or digital technology.

49. In the digital television era, although many aspects of the business and technology of broadcasting may be different, broadcasters will remain trustees of the public's airwaves. Our current rules were developed when technology permitted broadcasters to provide just one stream of programming over a 6 MHz channel. We recognize, however, that digital technology expands the effective capacity of 6 MHz of spectrum. For example, it permits, but does not require, licensees to provide several program streams, as well as other digital services, on the 6 MHz channel of spectrum that we are assigning them. The dynamic and flexible nature of digital technology creates the possibility of new and creative ways for broadcasters to serve the country and the public interest.

50. Some argue that broadcasters' public interest obligations in the digital world should be clearly defined and commensurate with the new opportunities provided by the digital channel broadcasters are receiving. Others contend that our current public interest rules need not change simply because broadcasters will be using digital technology to provide the same broadcast service to the public. We are not resolving this debate today. Instead, at an appropriate time, we will issue a Notice to collect and consider all views. As we authorize digital service, however, broadcast licensees and the public are on notice that existing public interest requirements continue to apply to all broadcast licensees. Broadcasters and the public are also on notice that the Commission may adopt new public interest rules for digital television. Thus as to the public interest, our action today forecloses nothing from our consideration.

#### F. Transition

##### 1. Simulcast

51. *Background.* In our 1992 *Second Report/Further Notice* (57 FR 21755, May 22, 1992), we determined that DTV licensees should simulcast on their NTSC channel the programming offered on their DTV channel. Specifically, we adopted, as a preliminary matter, a 50 percent simulcasting requirement, beginning one year after the six-year application and construction period, increasing to 100 percent two years later.<sup>9</sup> Our early simulcast decisions were based on the expectation that DTV would primarily consist of the broadcast of a single HDTV program service. However, as DTV technology developed, we learned that DTV would be able to do much more than we initially expected and that it would be possible to transmit multiple simultaneous SDTV program services on a single 6 MHz channel. Recognizing that a licensee would be unable to simulcast multiple program services on its NTSC channel, we stated in the *Fourth Further Notice* (60 FR 42130, August 15, 1995) that our simulcast requirement must be revisited and we must consider alternatives. In addition, we stated that we still perceived a need for a simulcast requirement, albeit different from that first envisioned, and proposed to require the simulcast of all material being broadcast on the licensee's NTSC channel on a program service of the

DTV channel. We requested comment on this proposal.

52. *Comments.* Broadcasters are divided on the necessity of a simulcast requirement. Numerous comments note that simulcasting is certain to occur even in the absence of a mandate. The Joint Broadcasters emphasize that they believe that much simulcasting of NTSC programming on the DTV channel would happen in the normal course. However, because broadcasters have differing views on the need for a requirement, the group declined to take a position on that issue. NAB and ALTV maintain that a simulcast requirement would be counterproductive and may delay development and penetration of DTV, especially during the early stages of the transition. However, NAB acknowledges that a phase-in of simulcasting near the end of the transition could be an effective means of preventing disenfranchisement of the remaining NTSC viewers. ABC and CBS argue that a simulcast requirement should apply from the outset of the transition. CBS argues that a simulcast requirement could spur the sale of DTV equipment and ensure that DTV and NTSC broadcast services do not evolve into separately programmed services. NBC supports a 50% simulcasting requirement to allow for some innovation. Broadcasters and other commenters arguing against the advisability of a simulcast requirement maintain that rigid requirements would hamper broadcasters' ability to promote and provide the programming that was most likely to draw viewers to the DTV channel. They argue that transition to DTV would occur most rapidly if broadcasters had the maximum flexibility to experiment with new services and to put together offerings that would best satisfy viewers. Commenters point out that simulcasting would slow the transition by preventing broadcasters from enticing viewers to DTV by making desirable programming available on DTV that is not available on NTSC. ALTV also argues that any requirement would be based on speculation about the development of digital service, and therefore imposition of any rule, if necessary at all, should be postponed.

53. Equipment manufacturers recommend that a simulcast requirement be tailored to promote a rapid transition to HDTV and DTV and recovery of NTSC spectrum. The cable industry supports a simulcast HDTV service, that is the broadcast of one program over two channels to the same area at the same time. Public-interest groups generally support requiring DTV broadcasters to simulcast their NTSC

<sup>8</sup> 47 U.S.C. sections 307(a), 309(a); *En Banc Programming Inquiry*, 44 FCC 2303, 2312 (1960).

<sup>9</sup> Additionally, we indicated that we would review this schedule at the time of our initial review of the pace of conversion at the end of the application/construction period and immediately prior to the imposition of 100 percent simulcasting.

service on the DTV channel. Commenters supporting a simulcast requirement argue that such a requirement would expedite the transition from analog to digital by guaranteeing that popular programming services continue to be available, in enhanced technical quality, on the DTV channel. They also point out that simulcasting would prevent the development of two separately programmed services, which might delay the transition. As to the question of phase-in, the Digital Grand Alliance suggests that simulcast requirements be minimal in the early years of the transition to facilitate innovative HDTV programming, and more comprehensive in the later years to avoid perpetuating unique NTSC programming that would make it difficult to cease NTSC broadcasts. Throughout the transition, one DTV program stream should be identical to the program stream carried on the NTSC channel.

54. *Decision.* We decline to adopt a simulcast requirement for the early years of the transition. In order to help reclaim spectrum at the end of the transition period, however, we adopt by the sixth year from the date of adoption of this *Report and Order* a requirement of 50% simulcasting of the video programming of the analog channel on the DTV channel; by the seventh year, a 75% simulcasting requirement; by the eighth year, a 100% simulcasting requirement, until the analog channel is terminated and that spectrum returned.

55. We have previously recognized the need to afford broadcasters flexibility to program their DTV channels to attract consumers, especially during the critical launch phase of DTV. We do not adopt a simulcast requirement during the early years of the transition in order to give broadcasters the ability to experiment with program and service offerings. We are convinced by commenters who argue that many consumers' decisions to invest in DTV receivers will depend on the programs, enhanced features, and services that are not available on the NTSC service, and a simulcast requirement might limit broadcasters' ability to experiment with the full range of digital capabilities. Because the DTV channels represent valuable resources with large opportunity costs, we believe licensees will have economic incentives to provide programming and services that will attract consumers to DTV. In any event, a simulcast requirement during this initial transition phase appears to be unnecessary because the record suggests that marketplace forces will ensure that the best NTSC programming will be simulcast on the

digital channel and broadcasters have indicated that they will simulcast NTSC programs on the DTV channel even in the absence of a requirement.

56. While we believe that a simulcast requirement is not warranted during the early years of the transition, there are benefits to a simulcast requirement near the end of the transition period. Such a requirement will help ensure that consumers will enjoy continuity of free over-the-air program service when we reclaim the analog spectrum at the conclusion of the transition period. It may be difficult to terminate analog broadcast service if broadcasters show programs on their analog channels but not on their digital channels. We believe that it will be easier to terminate analog services and reclaim the spectrum at the end of the transition if most broadcast households are capable of receiving DTV signals and these households do not suffer the loss of a current program service only offered on analog channels. Thus, we will require a phased-in simulcasting requirement as follows: By the sixth year from the date of adoption of this *Report and Order*, we adopt a 50% simulcasting requirement; by the seventh year, we adopt a 75% simulcasting requirement; by the eighth year, we adopt a 100% simulcasting requirement which will continue until the analog channel is terminated and the analog spectrum returned. We recognize that we will need to define clearly "simulcasting" in the context of DTV and will do so as part of our two-year reviews or other appropriate proceeding.

## 2. Licensing of DTV and NTSC Stations

57. *Background.* The *Second Report/Further Notice* (57 FR 21755, May 22, 1992) determined to treat the licensee as having two separate licenses. In the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995), however, the Commission tentatively concluded that substantial benefits could be obtained if the NTSC and ATV facilities were instead authorized under a single, unified license. The Commission tentatively decided that such a policy would ease administrative burdens on the Commission and broadcasters alike by reducing the number of applications that would have to be filled out, filed, and processed, and would be consistent with our authority under section 316 of the Act to modify an existing license. Licensing the two facilities under a single license would also retain the policy announced in the *Second Report/Further Notice* of treating both facilities the same for revocation/nonrenewal purposes.

58. *Comments.* Those commenters, which include broadcasters, networks, and equipment manufacturers, who address this issue largely support our revised proposal for a single, paired license. One commenter, broadcaster Golden Orange, argues that the DTV and NTSC stations should have separate licenses.

59. *Decision.* We adopt our tentative conclusion, echoed by nearly all those who commented, that the NTSC and DTV facilities should be licensed under a single, paired license. As determined earlier, this system will help the Commission and broadcasters alike by keeping administrative burdens down. It is also consistent with our intention to treat the DTV license and the NTSC license together for the purposes of revoking or not renewing a license. Once broadcasters have satisfied construction and transmission requirements, they will receive a single, paired license for the DTV and NTSC facilities.

60. One of our objectives is to promote broadcasters' ability to build digital businesses so that their valuable free programming service will continue. We anticipate that some licensees may find it beneficial to develop partnerships with others to help make the most productive and efficient use of their channels. We intend to give broadcasters flexibility in structuring business arrangements and attracting capital to build a successful DTV business. One of our overarching objectives is to promote the success of digital television. We anticipate that some licensees may find it beneficial to develop partnerships with others to help make the most productive and efficient use of their channel, and we will look with favor on such arrangements. Broadcasters may find it useful to work with other broadcasters or others who have special expertise in exploiting digital technology. Parties could come together for the sharing of facilities, costs, and equipment, the development and provision of programming and service offerings, access to capital and financing, the establishment of business plans, and the like. Such arrangements will aid both broadcaster and public, by helping the broadcaster achieve the most competitive and beneficial business strategy and by ensuring for the public the best use of the digital spectrum, including not only the most efficient use of the spectrum but also the greatest array of valuable services. Variations on partnerships have arisen in other contexts, which indicates that they are efficient and useful. For example, in the common network/affiliate relationship,

a network provides programming and advertising that its affiliates may use. Another example is the Commission's authorization of Instructional Television Fixed Services (ITFS) licensees to lease, for profit, their excess capacity to other service providers. We are receptive to the establishment of like arrangements in the DTV context. Whatever the arrangement, it is the licensee who remains responsible for ensuring the fulfillment of all obligations incumbent upon a broadcast licensee.

#### G. Application/Construction Period

61. *Background.* The *Second Report/Further Notice* (57 FR 21755, May 22, 1992) adopted a two year application period and an additional three years for construction of a DTV facility. We were concerned that without a specific timetable, some parties might delay construction while waiting for others to take the lead, to the detriment of our goal of expeditious DTV implementation. We clarified that broadcasters who did not apply and construct within the established time period (and who failed to obtain an extension of time) would lose their initial eligibility for a DTV frequency. We noted that existing policies regarding extensions of time would afford broadcasters adequate flexibility to cope with unforeseen implementation problems.<sup>10</sup> We defined "construction" as the capability of emitting DTV signals, regardless of the source of these signals (e.g., local origination, pass-through of a network signal, or other signal). This definition of construction would allow broadcasters to "phase-in" full DTV implementation as their individual circumstances and markets permit.

62. In the *Third Report/Further Notice* (57 FR 53588, November 12, 1992), we adjusted the application deadline from a two-year to a three-year period, and provided for a total six-year application and construction period with those applying early having a longer portion of the six-year period to devote to construction of DTV facilities. We explained that the deadlines for application and construction would assist in our reclamation of the reversion channel and our sliding scale approach would provide sufficient relief to small-market stations which produce less revenue. While we recognized that some stations would be market leaders in the implementation of DTV, we remained concerned that such leadership may not emerge, at least in

certain markets, unless we established a clear framework for the DTV transition.

63. The *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995) proposed a procedure by which broadcasters would have six months in which to make an election and confirm to the Commission that they want a DTV license. After that, they would have the remainder of the three-year period in which to supply any required supporting data, and a total of six years to complete construction. If they would elect not to construct a DTV facility, or would elect but then fail to construct, their NTSC licenses would expire at the end of the DTV conversion period, and they would be required to cease broadcasting. We sought comment on all aspects of the construction period. We asked whether certain classes of stations should be afforded special relief, and if so, which classes.

64. *Comments.* While most commenters do not specifically address the election period, some voice approval of a six-month election period.<sup>11</sup> The Digital Grand Alliance, however, suggests that the six-month election period be accompanied by a mechanism to ensure that this election represents real commitment to convert, such as the imposition of a non-refundable application fee, a substantial deposit refunded at commencement of DTV broadcast, or a fine if the broadcaster fails to commence DTV broadcast. On the other hand, Busse and Pacific FM argue that the 6-month election period is not a viable choice, because those who do not want a DTV license have, in effect, elected to go out of business since, under the Commission's proposal, all licensees will be required to cease broadcasting in NTSC at the end of the transition period.

65. Commenters voice many views. Many generally support the Commission's suggested timeframe, but suggest that the Commission take account of the fact that practical impediments may arise to implementation. While in support of the proposal for many stations, Joint Broadcasters, joined by ALTV, propose that a less demanding schedule and liberal waivers apply to help stations facing difficulty, such as noncommercial stations, small stations, those in small or rural markets, or in financial distress, as well as for those stations that face FAA, zoning, or other similar problems. Busse points out that even stations in large markets—such as

those with religious or specialty formats—may have difficulty making a timely transition. NAB suggests that the construction deadline be staggered on a market-by-market basis, in which large-market stations have six years, and small-market stations have three or six additional years, to complete construction, and in addition that waivers for problems such as zoning approvals also be available. The Association of Federal Communications Consulting Engineers argues that the six-year implementation period is inadequate, given the number of stations that will need to acquire transmission equipment, input/monitoring equipment, and tower structures during that limited timeframe. Christian Communications of Chicagoland proposes that the Commission recognize that the application/construction period operate as a "guideline subject to revision" rather than a set deadline.

66. Others maintain that, at least in some cases, the six-year period is too long. Thomson and the Digital Grand Alliance propose that the Commission shorten the application and construction periods at least in the 25 largest markets, but do not specify what period would be appropriate. General Instrument proposes that a three-year construction period be considered for major markets, and a six-year period for smaller markets. Motorola argues that, given the notice that broadcasters have been afforded, the appropriate timetable is a six-month application period, a six-month processing and grant period, and a two-year construction period.

67. *Decision.* We will apply a streamlined three-stage application process to the group of initially eligible analog permittees and licensees allotted a paired channel in the DTV Table of Allotments.<sup>12</sup> We will soon issue a Public Notice detailing the procedures to be followed, but will describe them briefly here.

68. *Stage One—Initial Modification License for DTV.* Pursuant to the 1996 Act and the eligibility criteria discussed above, we issue, by this paragraph and the attached Appendix E, additional DTV licenses to those initially eligible to receive them.

69. The statute directs us to limit initial eligibility for DTV licenses to persons that, as of the date of the issuance of the licenses, are licensed to operate a television broadcast station or hold a permit to construct such a station, or both. As the statute contemplates, we hereby issue a license

<sup>10</sup> For additional clarification of our extension policies, see, *Second Report/Further Notice* (57 FR 21755, May 22, 1992), *supra* at 3347-48.

<sup>11</sup> See, e.g., Comments of Joint Broadcasters at 12; Comments of Thomson at 7; Comments of General Instrument at 16; Comments of Golden Orange at 6; Comments of New World Television at 8.

<sup>12</sup> We note that under section 553(b)(A), notice and comment are not necessary for rules of agency procedure or practice. 5 U.S.C. 553(b)(A).

to all eligible licensees and permittees, a list of which is attached to this *Report and Order* as Appendix E. We conclude that it more effectively effectuates the congressional scheme to implement the statute through a three-phased process, with the first phase consisting of the initial DTV license, rather than through our conventional procedure. Use of the conventional licensing process would prevent us from establishing a date certain at which to determine initial eligibility, a process that is necessary to allow us to establish the Table of Allotments. Thus, we hereby issue a license, conditioned upon satisfaction of the additional requirements set out in ¶ 70–75 below. This license will modify the analog television permit or license; however, licensees may not begin construction or transmission until the additional conditions are met.<sup>13</sup> The license is also conditioned upon the requirement that “either the additional license or the original license held by the licensee be surrendered to the Commission for reallocation or reassignment (or both) pursuant to Commission regulation.”

70. *Request for Cancellation.* We presume that the recipients will welcome receipt of their initial DTV License and will be fully committed to the conversion to DTV. Nonetheless, there may be some broadcasters who do not wish to receive a second channel to convert to DTV. We wish to reclaim these second channels as quickly as possible so that the spectrum may be awarded to those who would use it quickly and effectively, and we earlier proposed a six-month election period to accomplish this result. We now believe that a six-month election period is too long. Given the length of this proceeding and the public benefits of acting quickly, we believe that broadcasters have already had ample time to consider many options, and will shorten the “election” period. In order to achieve the benefits of a rapid election and in the interests of spectrum efficiency, we ask that licensees who wish to cancel the initial DTV license do so by writing the Commission within 90 days from the release date of the DTV Table of Allotments adopted in the *Sixth Report and Order*.

71. *Stage Two—Certification or Application for Construction Permit.* To receive authorization for commencement of construction, an Initial DTV Licensee must file modified Form 301, attached as Appendix D, and

the appropriate fee to obtain a construction permit. Noncommercial stations must file a modified Form 340. The application must be filed before the mid-point in a particular applicant’s required construction period has expired. The Bureau will begin acting upon applications as soon as this *Report and Order* becomes effective.

72. We will apply a certification procedure for applicants that answer “yes” to a checklist of requirements contained in the construction permit application; these certifications will be automatically granted. Given the very rapid review permitted by this streamlined procedure, we will be able to grant a construction permit to broadcasters within a matter of days of submission of this form. Other applicants will be required to furnish additional technical information.

73. In the *Fifth Further Notice* (61 FR 26864, May 29, 1996), *supra* at ¶ 59, we sought comment on whether specific TV technical and procedural rules should be applied to DTV and whether modification of the rules was needed. Among those NTSC TV rules were section 73.685 and 73.1030. No comments addressed these issues. We herein establish a minimum set of technical requirements that will allow us to process these DTV construction permit applications. Fundamentally, a DTV application must conform to the DTV Table we are creating in the *Sixth Report and Order*, specifying the indicated channel at a transmitter site, effective radiated power (“ERP”) and antenna height meeting the restrictions imposed in that document. As described in the *Sixth Report and Order*, applications specifying a transmitter site within five kilometers of the site assumed in the DTV Table and also specifying an ERP and antenna height that do not exceed the values in the DTV Table will be accepted and not subject to interference-protection processing. Further, in order to avoid exposing the public to dangerous situations, we will continue the NTSC TV practice of verifying that the FAA has made any necessary determination that the proposed tower does not represent a hazard to air navigation, and we will require DTV applicants to certify as to no significant environmental impact or to include an environmental statement as described in section 1.1307 of our rules, including consideration of RF radiation levels. In addition, to avoid altering an AM radio station’s radiation pattern in a way that could cause interference in the AM radio band, we will require DTV applications to comply with section 73.658(h). To avoid interference to our

spectrum monitoring functions and to radio astronomy observations, we will also require DTV applications to comply with section 73.1030. Additionally, as discussed below, the DTV service contour will be required to encompass the community of license.

74. To speed the process, we will consider the DTV applications or certifications as involving a minor change in facilities<sup>14</sup> and will process them accordingly. Since this application will be for a minor change, applicants will not have to supply full legal or financial qualifications information.<sup>15</sup> We will not initially require full-replication of the analog station’s coverage area by DTV facilities. Accordingly, we will accept initial construction permit applications from applicants who demonstrate that their DTV coverage encompasses the community of license.<sup>16</sup> In situations where applicants seek a waiver of any of our requirements, we will entertain requests to allow them to begin

<sup>14</sup> Pursuant to section 73.3572(a)(1) of the Commission’s rules, a major change in a television station’s facilities is any change in frequency or community of license. 47 CFR § 73.3572(a)(1). The change involved in constructing and operating a DTV facility does not constitute a change in frequency, merely the implementation of the initial DTV License on a channel assigned in the *Sixth Report and Order*. The analog site will remain on the same frequency. Moreover, the DTV facility will, of course, be licensed to the same community, since it will be part of one license. We note that in our *Notice, supra* at 7026, we sought comment as to whether, as an alternative to a dual licensing scheme, we should treat the addition of a DTV channel as a major modification. We now conclude that it should be treated as a minor modification for the reasons discussed herein.

<sup>15</sup> In the *Third Report/Third Further Notice* (57 FR 53588, November 12, 1992), *supra* at 6945–46, we noted that we would not relax the financial qualifications showing required for a broadcast applicant. We were concerned that applicants that were not financially qualified could tie up the spectrum without ever obtaining the funds necessary to build the facility, thus negating a reason for restricting eligibility to existing broadcasters—*i.e.*, their ability to implement DTV swiftly. Our decision to treat the construction permit as a minor modification, however, eliminates the need for a financial qualifications showing. Moreover, Congress has determined that we should limit eligibility to existing broadcasters, and we have decided to streamline the application process so that DTV can be implemented quickly.

<sup>16</sup> While the *Sixth Report and Order* establishes the upper limit for DTV facilities, we believe that we should allow construction initially of DTV facilities that provide service to a smaller area. At the same time, stations should not be able to claim that they have completed required construction when they have built facilities that are so low in power that they reach no meaningful service area. Accordingly, as noted above, we establish the initial required coverage area as the community of license. During the first two-year review, we will consider whether to modify the build-out requirement to require a full-replication facility as well as adjustments to the protection of the full-replication facility.

<sup>13</sup> As discussed below, we expect that the application or certification process will be speedy and will not delay applicants as they prepare to implement the build-out.

construction, at their own risk, prior to the grant of a construction permit.

75. *Stage Three—Application for License to Cover Construction Permit for a DTV Facility.* When construction of the DTV facility has been completed, the permittee may commence program tests upon notification to the FCC, provided that an application for a license to cover the construction permit for the DTV facility, on Form 302, is filed within ten days, along with the appropriate fee.<sup>17</sup>

76. *Construction Schedule.* We have decided to adopt the following construction requirements. Stations affiliated with ABC, CBS, Fox and NBC must build digital facilities in the ten largest television markets by May 1, 1999. Stations affiliated with ABC, CBS, Fox and NBC in the top 30 television markets, not included above, must construct DTV facilities by November 1, 1999. All other commercial stations must construct DTV facilities by May 1, 2002. All noncommercial stations must construct their DTV facilities by May 1, 2003. We note that 24 stations in the top ten markets have voluntarily committed in writing to the Commission to building DTV facilities within 18 months. We applaud these broadcasters' voluntary commitments to give a great number of viewers access to a DTV signal in a very short period. This important step means that a significant portion of the public will be able to receive multiple signals by the holiday shopping season, when nearly 40 percent of all receivers are sold. We ask that those stations that have represented to the Commission that they will have completed construction of the DTV facility by November 1, 1998, file reports at six-month intervals, beginning on November 1, 1997, stating that their plans to meet these deadlines are on schedule or specifying any difficulties encountered in attempting to meet these deadlines.

77. We will grant an extension to the applicable deadline where a broadcaster has been unable to complete construction due to circumstances that are either unforeseeable or beyond the licensee's control if the licensee has taken all reasonable steps to resolve the problem expeditiously. Such circumstances include, but are not limited to, the inability to construct and

place in operation a facility necessary for transmitting DTV, such as a tower, because of delays in obtaining zoning or FAA approvals, or similar constraints, or the lack of equipment necessary to transmit a DTV signal. We do not anticipate that the circumstance of "lack of equipment" would include the cost of such equipment. With respect to extensions of the applicable construction deadline, the Commission will take into account problems encountered that are unique to DTV conversion, and will modify its existing policies regarding extensions accordingly. Authority is delegated to the Chief of the Mass Media Bureau to grant an extension of time of up to six months beyond the applicable construction deadline, upon demonstration by the DTV licensee or permittee that the standard discussed above is met, but the Bureau may grant no more than two extension requests upon delegated authority. Subsequent extension requests will be referred to the Commission.

78. Our decision to adopt different requirements for different categories of broadcasters is similar to the market-staggered approach favored by most broadcasters and equipment manufacturers. We agree that the most viewed stations in the largest television markets can be expected to lead the transition to DTV and that these stations are better situated to invest the capital necessary to establish the first DTV stations. We also agree that smaller market stations will find it easier to begin DTV service after learning from the experience gained by the larger market stations. In addition, we agree that our staggered construction schedule will help keep costs lower for smaller market stations, as equipment costs decrease as the market matures. In addition, a tiered approach allows us to ensure that DTV quickly reaches a large percentage of U.S. television households while placing requirements on a relatively small number of stations.

79. Our earlier preliminary decision to provide for an across-the-board six-year application/construction schedule is no longer appropriate. We now believe that a general six-year construction schedule would unnecessarily delay the realization of our goals of free, universal DTV service and spectrum recovery. A six-year construction schedule for all commercial stations anticipated neither the rapid development of digital technologies nor the ability of manufacturers and suppliers to provide DTV equipment. In light of these changes, we now believe that the six-year construction period is too long.

Instead, we believe that an aggressive construction schedule should be implemented for several reasons.

80. First, digital broadcast television stands a risk of failing unless it is rolled out quickly. Many operators in other media such as DBS, cable, and wireless cable use or plan to use digital technology. Unless digital television broadcasting is available quickly, other digital services may achieve levels of penetration that could preclude the success of over-the-air, digital television. Viewers who have leased or purchased digital set-top boxes from competing digital media may be less likely to purchase DTV receivers or converters. If digital, over-the-air television does not succeed, however, viewers will be without a free, universally available digital programming service.

81. Second, a rapid construction period will promote DTV's competitive strength internationally, as well as domestically. Other countries are moving swiftly to establish their own terrestrial digital television services. For example, the United Kingdom is scheduled to begin broadcasting terrestrial digital television by 1998 or earlier. Japan has recently announced that it will move from analog high definition television to digital television. Neither European nor Japanese digital standards are compatible with the U.S. standard. In the DTV Standard proceeding, equipment manufacturers and labor unions argued that quick and decisive action was necessary to permit American companies to compete internationally. The National Telecommunications and Information Administration and the Office of Science and Technology Policy argued that absent quick action, America might relinquish its technological lead to international competitors, while rapid adoption would spur the American economy in terms of manufacturing, trade, technological development, international investment, and job growth. Rapid introduction of digital television in the U.S. will help facilitate its adoption abroad.

82. Third, an aggressive construction schedule helps to offset possible disincentives that any individual broadcaster may have to begin digital transmissions quickly, as well as the possible absence of market forces that might themselves ensure rapid construction. We recognize that an individual broadcaster may consider implementation of DTV to require it to invest funds in order to capture viewers for which it is already receiving advertising revenue. Such a broadcaster

<sup>17</sup> Pursuant to section 1.68(a) of the Commission's rules, 47 CFR § 1.68(a), the Commission will grant the application where it finds that "all the terms, conditions, and obligations set forth in the application and permit have been fully met, and that no cause or circumstance arising or first coming to the knowledge of the Commission since the granting of the permit would, in the judgment of the Commission, make the operation of such station against the public interest."

might prefer to wait until others have converted to digital for a number of reasons, including lower equipment costs. On the other hand, a broadcaster may recognize first-mover advantages, such as being first to market with programs in higher definition or with ancillary data services. Our schedule ensures rapid construction in major markets.

83. Fourth, a rapid build-out works to ensure that recovery of broadcast spectrum occurs as quickly as possible. As we discuss in the *Sixth Report and Order*, at the end of the transition we plan to recover 78 MHz of clear spectrum in addition to the 60 MHz of partially encumbered spectrum we plan to recover in the near future from channels 60–69. We will also recover at the end of the transition that spectrum within channels 60–69 that is still needed for analog and digital television broadcasting during the transition.

84. By adopting construction requirements, we hope to give the various industries involved the certainty to move forward. Penetration of color television sets, for example, was limited until the three major networks began transmitting prime time programming in color. This provides evidence that consumers may not purchase great numbers of DTV sets or converters until multiple stations in their market are transmitting DTV, and that we therefore should adopt construction requirements that ensure that there are multiple digital television broadcasters operating. Television manufacturers plan to have the first digital television sets ready for purchase by the public by mid-1998. The construction schedule set forth here provides that multiple stations in most of the top ten markets are operating at roughly that time.

85. Our construction schedule will facilitate our goal of having at least 40 facilities affiliated with the four top networks in the top 10 markets transmitting DTV by May 1, 1999. Within roughly 24 months in each of the top 10 markets, which cover approximately 30 percent of U.S. television households, viewers will have DTV transmissions available from multiple stations. These signals will come from network affiliates, which are generally the stations with the highest ratings in the market. In the top 30 markets, network-affiliated stations must construct digital facilities by November 1, 1999. These markets include 53 percent of U.S. television households. Stations in the second category will benefit from the success of the stations in the first category, as word spreads from the largest markets to those medium-sized markets. The May

1, 1999, requirement applies to only 40 of the country's approximately 1200 commercial television stations, and only 80 additional stations will be affected by the November 1, 1999, deadline. Over one thousand commercial stations will have until May 1, 2002, to plan for and implement their DTV facilities.

Noncommercial stations will have until May 1, 2003, to construct.

86. We believe that our construction schedule is reasonable. We note that the most aggressive requirements apply to stations that we believe are most able to absorb the costs of conversion and are otherwise situated to make the transition quickly: stations affiliated with the four major networks in the largest markets. We base our decision in this regard on several grounds. First, network affiliates consistently garner the highest percentage of audience share, and thus are likely to have substantial revenues that may be used to fund the conversion. Second, network affiliates are in a stronger position than independent stations because they obtain programming from their network and may also receive economic, technical, and other support that would help with respect to the conversion. Affiliates are consistently the most highly watched and generally the most financially successful, with better ratings and consequent higher advertising revenues. Their greater strength should give them a strong position from which to launch their digital service. Accordingly, we believe that network affiliates in the largest markets will be in the best position to make a rapid transition to DTV. We recognize that in some markets, a network has two affiliates, one of which is much stronger, with a much larger audience share, than the other. We have provided relief to the smaller affiliate in such cases, by granting a longer construction deadline. Finally, our construction schedule also focuses on network affiliates because we believe that the sale of receivers and thus the conversion to DTV will be accelerated by the early availability of network programming in DTV.<sup>18</sup>

87. Thus, the roughly two-year construction requirement that applies to these affiliates will both serve the public and be nonburdensome to these broadcasters. By May 1, 1999, markets

<sup>18</sup>We have recognized the value and appeal of network programming in a number of previous decisions. See *Channel 41, Inc.*, 6 FCC Rcd 4109, 4111 (1991) (rule waiver granted in order to preserve ABC programming); *Herald Publishing Co.*, 6 FCC 2d 631 (1967) (waiver granted in part because station proposed to bring NBC network programming to a large number of viewers for the first time).

including fully 30 percent of television households will have access to multiple streams of digital television. The vast majority of commercial broadcasters will have five years in which to construct, and noncommercial stations will have six years in which to construct their digital facilities. We agree with commenters arguing for a shorter construction schedule, especially for broadcasters in the largest television markets. As these commenters point out, broadcasters have been on notice throughout this proceeding of the impending need to convert to DTV. With their greater population coverage and scope of operations, we agree that broadcasters in the largest markets generally will be better able to afford and support a more rapid construction schedule.

88. Moreover, the construction timetable appears to be consistent with the announced plans of the large networks. CBS has received an experimental authorization from the Commission and plans to transmit a DTV signal from the Empire State Building in the spring of 1997. ABC plans to have stations experimenting with digital transmission in early 1998. Fox ordered digital transmitters for its O & O's fully five years ago from Harris Corporation, and plans to have digital transmission between the network and affiliates in place by third quarter 1998. NBC said it would begin broadcasting digital signals 18 months after licenses are awarded. NBC already has designed and is building a \$55 million dollar state-of-the-art digital infrastructure at its headquarters at 30 Rockefeller Plaza that will be commissioned this year. On February 2, 1997, WHD-TV, NBC's owned-and-operated model DTV station in Washington, D.C., broadcast "Meet the Press" in high resolution, using the new DTV standard. NBC has also announced that it intends "to move as aggressively and expeditiously as is technically feasible" to enable all of its owned and operated stations around the country to transmit DTV and is "encouraging and helping" its NBC affiliates across the nation in making the transition to DTV.

89. Our confidence in the willingness of licensees to move rapidly is also supported by a recent survey of broadcasters which shows that 28 percent of respondents plan to convert to DTV within two years and 79 percent of respondents plan to convert to DTV within five years. In fact, some broadcasters have already completed arrangements for their digital transmission facilities. For example, the network affiliates in San Francisco have arranged to place their antennae for

digital transmission on Sutro Tower. Similarly, in New York City, the CBS-owned station has already arranged to place an antenna for digital transmission atop the Empire State Building.

90. In addition, two experimental digital television stations are already up and running, and were able to begin transmissions just four months after announcing their plans to do so: WHD-TV in Washington, DC, the model station sponsored by the broadcast and equipment industries, and WRAL, in Raleigh, North Carolina. We have also already granted eight requests for experimental facilities, at least five of which are now operating, and we expect to grant another five experimental licenses soon. These efforts reflect the ability of broadcasters to set up facilities, and they have given broadcasters experience with digital television equipment that should help speed its introduction elsewhere. Finally, equipment manufacturers' recent statements that they plan to sell digital television sets by Christmas 1998 is a further expression of confidence and expectation that DTV will be widely available by that time so as to ensure consumer demand.

91. While we recognize that conversion to digital will impose some burden on broadcasters, we have taken steps to ease broadcasters' introduction of digital service by requiring them at the outset only to emit a DTV signal strong enough to encompass the community of license, and not requiring them to begin transmission to achieve full replication. Many broadcasters will be able to use existing towers for digital transmission and reduce the costs of constructing a DTV facility. Many commenters who argued in favor of a longer construction schedule did so based on their contention that construction of full-replication facilities would require more than six years due to hardware supply constraints, insufficient personnel resources, or lack of adequate new tower sites. However, our construction requirement is satisfied by the emission of a DTV signal strong enough to encompass the community of license, rather than the more difficult requirement that broadcasters replicate their existing service areas. Therefore, licensees need not initially construct full-replication facilities. We believe that the establishment of a construction requirement that is more easily satisfied, as well as our staggered approach, will alleviate the difficulties raised by some commenters.

92. One of the most significant issues in converting to digital broadcasting is the construction of new towers or the

upgrade of existing towers. As explained above, this burden will be eased by our limited build-out requirement. In addition, while we recognize that there may not be sufficient equipment available in the earliest days to allow for a full-fledged DTV operation to be implemented by all 1,600 television licensees, we are confident that minimal facilities for the handful of licensees in the top ten markets can be assembled in a timely fashion. These facilities need only meet our requirements of serving the community of license, which can be accomplished by the use of existing equipment or prototypes certain to be introduced soon.

93. As for noncommercial stations, we allow them until May 1, 2003, to construct DTV facilities. There is strong support in the record for giving noncommercial stations greater leeway in the construction of DTV facilities. As discussed more fully below, noncommercial stations need and warrant special relief to assist them in the transition. And, as noted above, there are some noncommercial stations at the forefront of DTV. However, we are convinced by the record that noncommercial stations, as a group, may have more difficulty with the transition to DTV than commercial stations. Therefore, we permit noncommercial stations a longer period of time to construct DTV facilities than commercial DTV stations.

#### H. Recovery Date

94. *Background.* Earlier in this proceeding, the Commission made the preliminary decision to establish a recovery date 15 years from the date of the adoption of an ATV system or the date a final Table of ATV Allotments is effective, whichever is later. At the end of this period, all analog broadcast would cease, and the spectrum used for NTSC would be returned to the Commission. The Commission emphasized that, given the uncertainties surrounding the conversion process and the possible changes in the data on which we relied, setting the recovery date at 15 years was necessarily preliminary. In order to avoid making a decision that would be overtaken by events, the Commission adopted a schedule of periodic reviews to make whatever adjustments might be necessary. The Commission made clear that broadcasters who do not convert to ATV will have to cease broadcasting in NTSC at the end of the 15-year transition period. The Commission explained that establishment of a firm date for full transition would be in the public interest because it would keep

administration simple, assure progress toward spectrum recovery on a timely basis, and give parties a clearly defined planning horizon. The *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995) explained that a more rapid conversion to ATV might be possible than previously expected. The broadcast industry, including equipment manufacturers, have been aggressive in developing digital television technology, as have alternative programming providers such as Direct Broadcast Satellite (DBS), cable systems, wireless technology, and others. Because of the developing competition, and the drop in prices resulting from the proliferation of digitally based media, the *Fourth Further Notice/Third Inquiry* anticipated that conversion might occur more rapidly than originally anticipated. Commenters were asked to address whether some objective benchmark(s) could be used to determine when broadcasters should cease NTSC transmission.

95. *Comments.* Numerous commenters note that the high degree of uncertainty surrounding the successful establishment of DTV makes it difficult to set an end-point for NTSC service. Many urge us therefore to postpone setting a transition date. Joint Broadcasters argue, for instance, that: "Even the enterprise of setting self-enforcing benchmarks at this point is highly speculative in the absence of market experience. There are simply too many unknowns that will need to be factored into any such decision—the cost and availability of digital sets, the cost and availability of converters, and ATV penetration levels both in terms of households and sets." Some commenters propose that the Commission set a nominal target date for the cessation of NTSC broadcasts, with periodic reviews to monitor the progress of implementation. Others support a settled "date certain" approach.

96. If the Commission were to set objective benchmarks, comments suggest several possible benchmarks: a measurement of the total number of sets and total number of households capable of displaying DTV; a measurement of the number of stations transmitting digital signals and the number of households with digital receivers, including set-top boxes; a "sets-sold" methodology so that once DTV sets reach some percentage, e.g., 70%, of current TV households, NTSC transmissions would cease three years later; or when a certain percentage, e.g., 80%, of television households no longer rely solely on analog broadcasting.

97. *Decision.* One of our overarching goals in this proceeding is the rapid establishment of successful digital broadcast services that will attract viewers from analog to DTV technology, so that the analog spectrum can be recovered. Accomplishment of this goal requires that the NTSC service be shut down at the end of the transition period and that spectrum be surrendered to the Commission. Indeed, Congress required the Commission to condition the grant of a digital license on the Commission's recovery of 6 MHz from each licensee. The Act provides:

“(c) Recovery of License. —If the Commission grants a license for advanced television services to a person that, as of the date of such issuance, is licensed to operate a television broadcast station or holds a permit to construct such a station (or both), the Commission shall, as a condition of such license, require that either the additional license or the original license held by the licensee be surrendered to the Commission for reallocation or reassignment (or both) pursuant to Commission regulation.”

The question we face is at what point in time the surrender should occur.

98. We continue to believe that it is desirable to identify a target end-date of NTSC service. Doing so will lend certainty to the introduction of digital by making clear to the public that analog television service will indeed cease on a date certain. A target will provide broadcasters and manufacturers with a defined planning horizon that will help them gauge their business plans to the introduction of DTV.

99. While the Commission has previously considered a 15-year end-point for NTSC service, we now believe that broadcasters should be able to convert to digital broadcast much more rapidly. Specifically, we believe that a target of 2006 for the cessation of analog service is reasonable. As the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995) explained, as digital technology has developed, we have had reason to expect that DTV may be adopted more quickly than originally anticipated. Competitors in the video programming market, such as DBS, cable, and wireless cable, have aggressively pursued the potential of digital technology. This competitive pressure has lent urgency to the need for broadcasters to convert rapidly. Furthermore, technological advances have worked to lower the introductory costs to broadcasters; for example, new technology may allow many broadcasters to use existing towers for digital transmission, thus easing the expense of converting to digital equipment. And, due to the introduction of other services,

broadcasters who need new towers, will be able to lease space on their new towers to mobile service providers, further lowering the costs of converting. On the viewers' side, technological advances in converter-box technology will lower the consumer costs of the introduction of digital technology. The dramatic drop anticipated in converter-box prices will permit consumers inexpensively to continue to use existing equipment, thus easing the introduction of digital services. Based on our current information, we believe 2006 is a reasonable target.

100. As we discuss below, we will conduct reviews of the progress of DTV every two years. This will allow us to monitor the progress of DTV and to make adjustments to the 2006 target, if necessary. In evaluating the appropriateness of the 2006 target date, key factors for consideration will include viewer acceptance of digital television, penetration of digital receivers and digital-to-analog converter set-top boxes, the availability of digital-to-analog conversion by retransmission media such as cable, DBS, and wireless cable, and generally the number of television households that continue to rely solely on over-the-air analog broadcasting. We emphasize, as we have throughout this proceeding, that at the designated date, broadcasters who do not receive extensions must return one of their two channels.

#### *I. Noncommercial Stations*

101. *Background.* In the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995), we noted that noncommercial licensees would face unique problems in their transition to DTV, particularly in the area of funding. Accordingly, we asked for comment on what relief would be appropriate for noncommercial broadcasters. We also noted comments by noncommercial broadcasters that the six-year application/construction period was insufficient, but expressed our preference to establish a firm transition schedule, dealing with unique problems on a case-by-case basis, rather than establishing two sets of broadcasters, each with its own schedule. Finally, we asked what other relief could be afforded to noncommercial broadcasters to assist them in the conversion to DTV, such as by mandating that only the minimum required broadcast programming must be “noncommercial,” and to minimize restrictions on their operations and allow them greater flexibility.

102. *Comments.* AAPTS/PBS state that their biggest concern is the ability of noncommercial stations to raise

sufficient funds to support current operations and the transition to DTV. Toward that end, they assert that they have worked with Congress to propose legislation that would replace the current system of federal funding for public television stations with new sources of funding. In their Comments, AAPTS/PBS seek flexibility in the application and construction period in light of the financial constraints faced by noncommercial broadcasters, including relaxation or elimination of the financial qualifications requirement and establishment of a less demanding construction schedule for noncommercial stations—requiring only that they construct and begin operating DTV facilities some time prior to the ultimate conversion deadline. Finally, they urge that noncommercial stations that share a channel under their legislative proposal be afforded flexibility to convert to full-time DTV operation on their NTSC channels at any time during the transition period and that the Commission should adopt a waiver policy under which noncommercial stations that operate their own DTV channels would be permitted, on a case-by-case basis to convert to DTV operation on one of the station's 6 MHz channels and cease NTSC operations earlier than the conversion date.

103. MAP also supports relaxing the construction and transition timetables and financial qualifications for public broadcasters. General Instrument notes its general support for government action that would “mitigate financial problems faced by noncommercial stations in converting to ATV technology, and would lead to conversion as early as possible.” Further, The Digital Grand Alliance agrees with AAPTS/PBS that the Commission should modify its approach as necessary to promote the conversion of noncommercial stations to DTV. It does not object to affording less demanding construction schedules for noncommercial broadcasters as long as they are operating their DTV channel by the end of the transition period, and it endorses giving them the option to convert to full-time DTV on their NTSC channels at any time during the transition period.

104. *Decision.* At the outset, we note our commitment to noncommercial educational television service and our recognition of the high quality programming service noncommercial stations have provided to American viewers over the years. We also acknowledge the financial difficulties faced by noncommercial stations and reiterate our view that noncommercial

stations will need and warrant special relief measures to assist them in the transition to DTV. Accordingly, we intend to grant such special treatment to noncommercial broadcasters to afford them every opportunity to participate in the transition to digital television, and we will deal with them in a lenient manner. As discussed above, we will not require a financial showing of any broadcaster seeking a construction permit to build a DTV station, and, accordingly, no special treatment will be required of noncommercial broadcasters in this regard. With respect to the construction deadline, discussed above, we will apply a six-year construction period timetable to noncommercial stations, the longest permitted to any category of DTV applicant. We believe, however, that it would be premature to attempt to resolve the issue of what additional special treatment, if any, should be afforded to noncommercial broadcasters at this early date, and we will consider this issue in our periodic reviews. At the same time, however, we wish to note that public broadcasting service was the first to establish a digital satellite transmission system and that public broadcasting licensees are in the forefront of experimenting with digital television. Public broadcasters have taken an innovative approach in experimenting with the capabilities of digital technology.

#### *J. Must-Carry and Retransmission Consent*

In the *Fourth Further Notice/Third Inquiry* (60 FR 42130, August 15, 1995), we requested comment on questions relating to the issues of what must-carry obligations and retransmission consent provisions should apply to DTV stations, both during the transition and as a consequence of DTV having replaced NTSC broadcasting. We received comments on these issues from several entities. Subsequent to the issuance of the *Fourth Further Notice/Third Inquiry*, Congress, in the 1996 Act, gave the Commission some direction as to the scope of must-carry, indicating that no ancillary or supplementary DTV services should have must-carry rights.

106. On March 31, 1997, the Supreme Court upheld the constitutionality of the must-carry provisions contained in the Cable Television Consumer Protection and Competition Act of 1992, in *Turner Broadcasting System, Inc. v. FCC* ("Turner II"). In upholding the constitutionality of must-carry, the Court emphasized that preserving the benefits of free, over-the-air broadcast television and promoting the

widespread dissemination of information from a multiplicity of sources were important governmental interests. The *Turner II* case did not expressly address the issue of must-carry of digital television signals. In order to obtain a full and updated record on the applicability of the must-carry and retransmission consent provisions in the digital context, particularly in light of the *Turner II* decision, we intend to issue a Notice to seek additional comments on these issues.

#### *K. All-Channel Receiver Issues*

107. *Background.* Traditionally, we have not regulated broadcast receivers except insofar as they incidentally radiate energy. However, the All Channel Receiver Act authorizes us to require that television receivers "be capable of adequately receiving all frequencies allocated by the Commission to television broadcasting." While we require that all TV broadcast receivers be capable of adequately receiving all channels allocated by the Commission to the television broadcast service, we previously determined in this proceeding that the All Channel Receiver Act does not mandate the manufacture of dual-mode (DTV and NTSC) receivers. We were concerned that such a requirement might burden consumers, and sought comment on whether there is any need to require that manufacturers produce receivers capable of both NTSC and DTV reception during the transition to DTV.

108. In the *Fourth Further Notice of Proposed Rule Making* (60 FR 42130, August 15, 1995), we noted that DTV would have the capability to deliver both HDTV and SDTV and sought comment on whether permitting the manufacture and sale of receivers that receive and display only NTSC, SDTV, or HDTV signals, or some combination, would be consistent with the All Channel Receiver Act and in the public interest. We also requested comment on whether we should regulate how a signal should be displayed, the need for a labeling requirement for television receivers, and limiting the sale of NTSC receivers.

109. *Comments.* Most broadcasters support a requirement that all DTV receivers and set-top converters be able to receive and display NTSC signals, and receive all DTV signals included in the DTV transmission standard and display them in the highest quality format which the particular set is designed to accommodate. Golden Orange argues that the Commission should allow market forces to determine receiver design. The Digital Grand

Alliance and most equipment manufacturers argue that manufacturers will build digital receivers that receive all DTV formats, including HDTV, along with NTSC broadcasts, without any FCC requirement. The Digital Grand Alliance states that it would support a requirement that all DTV receivers receive all DTV formats including HDTV, if it were coupled with a requirement that broadcasters transmit minimum amounts of HDTV programming.

110. While most broadcasters and Motorola favor regulations governing how DTV signals are displayed on DTV receivers, most equipment manufacturers and other commenters favor a market-driven approach. Comments are also mixed on the need for labeling requirements. Joint Broadcasters state that the Commission should consider a notice requirement on NTSC-only sets warning consumers that NTSC transmissions will end. New World states that the FCC should require every NTSC-only set to come with a prominent warning that the set will not receive broadcasts after a date certain without modifications. MAP argues that the burdens of labeling are far outweighed by the need to protect consumers. Equipment manufacturers maintain that labeling requirements are unnecessary. EIA states that informational programs and consumer education are critical components of the manufacturer-consumer relationship, so manufacturers will be certain to educate consumers regarding their equipment options during the transition to DTV. On the issue of limiting the sale of NTSC receivers, New World and the AAPTS/PBS favor a requirement that all televisions sold after some date be capable of receiving and displaying digital broadcast transmissions. The Digital Grand Alliance and EIA argue that the Commission should not ban or limit the sale of NTSC-only receivers. During the transition to digital, and perhaps even after, the Digital Grand Alliance contends, there is likely to be a demand for NTSC-only sets driven by cable services, wireless cable services, direct broadcast satellite services, digital video disc players, and VCRs.

111. *Decision.* The digital broadcast transmission standard which we adopted in the *Fourth Report and Order* (62 FR 14006, March 25, 1997) differed from the standard we proposed in the *Fifth Further Notice* (61 FR 26864, May 29, 1996). Many of the comments we received in response to the *Fifth Further Notice* assumed that the Commission would adopt a DTV transmission standard that included specific video formats. However, the standard we

adopted in the *Fourth Report and Order* did not specify video formats. We chose instead to allow video formats to be determined by the market and consumer demand. Because of this important modification, we believe that some of the arguments made by the commenters on specific all-channel receiver issues are no longer applicable.

112. We have decided that, at this time, equipment manufacturers should have maximum latitude to determine which video formats DTV equipment will receive. We believe that it is likely that market forces will provide incentives for broadcasters and equipment manufacturers to work closely together to produce the receiver and converter designs most valued by consumers.

113. We do not believe that our goals would be advanced by mandating that all digital receivers receive and display NTSC signals and DTV signals, regardless of format, aspect ratio, or progressive or interlaced scanning, as broadcasters argue. We expect that equipment manufacturers will make available to consumers digital receivers that receive both NTSC and DTV signals. However, we will not preclude equipment manufacturers from designing digital receivers that do not receive NTSC signals. In addition, we believe that equipment manufacturers should be allowed to offer lower-cost, digital receivers that receive only progressive scan or SDTV formats. Our two-year reviews will give us an opportunity to monitor DTV receiver designs and address any problems that may arise.

114. We have decided to postpone any decision concerning a labeling requirement. We are providing broadcasters flexibility in their choice of video formats and equipment manufacturers flexibility in their choice of receiver designs and we are hopeful that this will result in products and services that draw consumers to DTV. At this early stage of the transition process, we will rely on consumer electronics manufacturers and retailers to provide the information necessary for consumers to make informed choices. Should problems arise, and consumers become confused, as the transition moves forward, we will have opportunity to revisit labeling requirement issues through our review process. Finally, we recognize that there is an enormous embedded base of video cassette recorders, cable decoder boxes, laser disc players, and other video equipment that use NTSC receivers for non-broadcast purposes. This suggests that there may be a continuing market for the sale of NTSC display devices,

even after the conversion to DTV. Therefore, we decline to limit the sale of NTSC-only display devices.

#### L. Review Issues

115. In the *Third Report/Further Notice* (57 FR 53588, November 12, 1992), the Commission set deadlines for the application and construction period, the simulcast requirements, and the transition end-date. The Commission also adopted a timetable, with specific years, for the review of information relating to these time periods, under the assumption that the ATV standard and a table of ATV allotments would be adopted by late 1993. The Commission emphasized that the adoption of certain dates would give parties a measure of certainty, while a schedule for review would permit government and industry to adapt, if necessary, to unforeseen circumstances.

116. While the specific dates established in the *Third Report/Further Notice* (57 FR 53588, November 12, 1992) have been overtaken by events and are no longer applicable, we continue to believe that regular reviews of the progress of DTV are highly desirable. Given the importance of digital television's introduction, we conclude that a periodic review every two years until the cessation of analog service is necessary to allow the Commission the opportunity to ensure that the introduction of digital television and the recovery of spectrum at the end of the transition fully serves the public interest. During these reviews, we will address any new issues raised by technological developments, necessary alterations in our rules, or other changes necessitated by unforeseen circumstances. The Commission will address such issues as the appropriateness of 2006 as a target recovery date, the proper application of the simulcast requirement, the special needs of noncommercial stations, issues related to DTV receiver designs and set labelling, and any other issue that requires examination. Our decisions today, at the very outset of the introduction of digital television, are in some respects necessarily preliminary. A periodic review will permit us to make whatever adjustments will be required.

#### III. Conclusion

117. Digital television will enter a highly competitive, challenging telecommunications marketplace. Our decisions in this Report and Order, designed to foster technological innovation and competition, while minimizing government regulation, will, we hope, increase the likelihood that we

will see a digital television service that provides a host of new and beneficial services to the American public, while preserving free universal television service that serves the "public interest, convenience, and necessity."

#### IV. Administrative Matters

118. The Commission has submitted to OMB an emergency request for approval of: (1) an information collection regarding the cancellation of the Initial DTV License and (2) the form attached to this *Report and Order* to be used to apply for a DTV construction permit. The first request will be used only once and the Commission will not seek extension of the approval for this collection. The second will continue to be used by the public. OMB approved this emergency request and assigned 3060-0766 as the control number. Additionally, this *Report and Order* contains a requirement that those stations that voluntarily committed to building DTV facilities within 18 months are required to submit progress reports on construction of facilities. As required by the Regulatory Flexibility Act ("RFA"), 5 U.S.C. 603, an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the *Fourth Further Notice of Proposed Rule Making and Third Notice of Inquiry* (60 FR 42130, August 15, 1995) in this proceeding. The Commission sought written public comments on the proposals in the *Fourth Further Notice*, including on the IRFA. The Commission's Final Regulatory Flexibility Analysis ("FRFA") in this *Fifth Report and Order* conforms to the RFA, as amended by the Contract With America Advancement Act of 1996, Public Law 104-121, 110 Stat. 847 (1996) ("CWAAA").<sup>19</sup>

#### V. Final Paperwork Reduction Act of 1995 Analysis

119. This *Report and Order* contains either a new or modified information collection. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public to comment on the information collections contained in this R&O as required by the Paperwork Reduction Act of 1995, Public Law 104-13. Public and agency comments are due 60 days from date of publication of this R&O in the **Federal Register**. Comments should address: (a) Whether the new or modified collection of information is necessary for the proper performance of the functions of the Commission,

<sup>19</sup> See generally 5 U.S.C. § 1 et seq. (RFA). Title II of CWAAA is The Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

*OMB Approval Number:* 3060-0027.

*Title:* Application for Construction Permit for Commercial Broadcast Station.

*Form No.:* FCC 301.

*Type of Review:* Revision of a currently approved collection.

*Respondents:* Businesses or other for-profit.

*Number of Respondents:* 1,996.

*Estimated time per response:* 37 hours—159 hours (This time varies depending of the type of application filed. This collection is contracted out to communications attorneys and consulting engineers for completion of the form.)

*Total annual burden:* 8,071.

*Needs and Uses:* FCC 301 is used to apply for authority to construct a new commercial AM, FM or TV broadcast station, or to make changes in the existing facilities of such a station. In addition, FM licensees or permittees may request, by application on FCC 301, upgrades on adjacent and co-channels, modifications to adjacent channels of the same class and downgrades to adjacent channels without first submitting a petition for rulemaking. All applicants using this one-step process must demonstrate that a suitable site exists which would comply with allotment standards with respect to minimum distance separation and city-grade coverage and that it would be suitable for tower construction.

120. To receive authorization for commencement of operation, an initial DTV licensee must file FCC 301 for a construction permit. This application may be filed anytime after receiving the initial DTV license but must be filed before the mid-point in a particular applicant's required construction period. The Commission has developed a new section V-D for DTV engineering which will be added to the FCC 301. The Commission will consider these applications as minor changes in facilities. Applicants will not have to supply full legal or financial qualification information.

121. On 3/7/96, the Commission adopted an Order which amended the Commission's rules to eliminate current national multiple radio ownership restrictions and to relax local radio ownership restrictions (the "radio

contour overlap" rule). This action was necessary to conform the rules to section 202(a) and 202(b)(1) of the Telecommunications Act of 1996. This action will revise the FCC 301 by removing the Exhibit dealing with market and audience share information.

122. The FCC 301 will also be revised to add the new requirements regarding antenna tower registration. This unique antenna registration number identifies an antenna structure and must be used on all filings related to the antenna structure. Several questions will be added to the engineering portions of the this form to collect this information. This requirement was approved by OMB under control number 3060-0714.

123. The data is used by FCC staff to determine whether the applicant meets basic statutory requirements to become a Commission licensee.

*OMB Approval Number:* 3060-0034.

*Title:* Application for Construction Permit for Noncommercial Educational Broadcast Station.

*Form No.:* FCC 340.

*Type of Review:* Revision of a currently approved collection.

*Respondents:* Not for-profit institutions.

*Number of Respondents:* 646.

*Estimated time per response:* 37 hours—114 hours (This time varies depending of the type of application filed. This collection is contracted out to communications attorneys and consulting engineers for completion of the form.)

*Total annual burden:* 2,736.

*Needs and Uses:* FCC 340 is used to apply for authority to construct a new noncommercial educational AM, FM and TV broadcast station, or to make changes in the existing facilities of such a station.

124. To receive authorization for commencement of operation, an initial DTV licensee must file FCC 340 for a construction permit. This application may be filed anytime after receiving the initial DTV license but must be filed before the mid-point in a particular applicant's required construction period. The Commission has developed a new section V-D for DTV engineering which will be added to the FCC 340. The Commission will consider these applications as minor changes in facilities. Applicants will not have to supply full legal or financial qualification information.

125. This form will be revised to add the new requirements regarding antenna tower registration. This unique antenna registration number identifies an antenna structure and must be used on all filings related to the antenna structure. Several questions will be

added to the engineering portions of the FCC 340 to collect this information. This requirement was approved by OMB under control number 3060-0714.

126. The data is used by FCC staff to determine whether the applicant meets basic statutory requirements to become a Commission licensee.

*OMB Approval Number:* 3060-None.

*Title:* DTV Report on Construction Progress.

*Form No.:* None.

*Type of Review:* New Collection.

*Respondents:* Business or other for-profit.

*Number of Respondents:* 24.

*Estimated time per response:* 0.33 hours (2 times per year).

*Total annual burden:* 16 hours.

*Needs and Uses:* By letter to the Commission, 24 stations have voluntarily committed to building DTV facilities within 18 months. The Commission is requesting that these 24 stations file reports at six-month intervals, beginning on November 1, 1997, stating that their plans to meet these deadlines are on schedule or specifying any difficulties encountered in attempting to meet these deadlines.

127. The data will be used by FCC staff to monitor the progress of DTV applicants in the construction of their DTV facilities.

## VI. Final Regulatory Flexibility Analysis

128. As required by the Regulatory Flexibility Act ("RFA"), 5 U.S.C. 603, an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the *Fourth Further Notice of Proposed Rule Making and Third Notice of Inquiry* in this proceeding.<sup>20</sup> The Commission sought written public comments on the proposals in the *Fourth Further Notice*, including on the IRFA. The Commission's Final Regulatory Flexibility Analysis ("FRFA") in this *Fifth Report and Order* conforms to the RFA, as amended by the Contract With America Advancement Act of 1996, Public Law 104-121, 110 Stat. 847 (1996) ("CWAAA").<sup>21</sup>

### Need for Objectives of Action

The *Fifth Report and Order* adopts several rules with the following objectives: (1) To promote and preserve free, universally available, local broadcast television in a digital world, thereby preserving free, widely accessible programming that serves the public interest; and (2) to promote

<sup>20</sup> 10 FCC Rcd 10540, 10555 (1995).

<sup>21</sup> See generally 5 U.S.C. 1 *et seq.* (RFA). Title II of CWAAA is The Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

spectrum efficiency and rapid recovery of spectrum.

*Significant Issues Raised by the Public in Response to the Initial Analysis*

No comments were received specifically in response to the IRFA contained in the *Fifth Further Notice*. However, some comments indirectly addressed small business issues. In addition, most commenters agreed that DTV licensees should have the discretion to provide a wide variety of ancillary and supplemental services, thereby providing an additional revenue stream that would benefit small entities. Finally, several low power television ("LPTV") broadcasters, many of which are small entities, want the Commission to extend initial eligibility to LPTV licensees.

*Description and Number of Small Entities to Which the Rule Will Apply*

*Definition of a "Small Business".* Under the RFA, small entities may include small organizations, small businesses, and small governmental jurisdictions. 5 U.S.C. 601(6). The RFA, 5 U.S.C. 601(3), generally defines the term "small business" as having the same meaning as the term "small business concern" under the Small Business Act, 15 U.S.C. 632. 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 Small Business Administration ("SBA"). According to the SBA's regulations, entities engaged in television broadcasting Standard Industrial Classification ("SIC") Code 4833—Television Broadcasting Stations, may have a maximum of \$10.5 million in annual receipts in order to qualify as a small business concern. This standard also applies in determining whether an entity is a small business for purposes of the RFA.

129. Pursuant to 5 U.S.C. 601(3), the statutory definition of a small business applies "unless an agency after consultation with the Office of Advocacy of the SBA and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the **Federal Register**." While we tentatively believe that the foregoing definition of "small business" greatly overstates the number of television broadcast stations that are small businesses and is not suitable for purposes of determining the impact of the new rules on small television stations, we did not propose an

alternative definition in the IRFA.<sup>22</sup> Accordingly, for purposes of this *Fifth Report and Order*, we utilize the SBA's definition in determining the number of small businesses to which the rules apply, but we reserve the right to adopt a more suitable definition of "small business" as applied to television broadcast stations and to consider further the issue of the number of small entities that are television broadcasters in the future. Further, in this FRFA, we will identify the different classes of small television stations that may be impacted by the rules adopted in this *Fifth Report and Order*.

130. *Issues in Applying the Definition of a "Small Business"*. As discussed below, we could not precisely apply the foregoing definition of "small business" in developing our estimates of the number of small entities to which the rules will apply. Our estimates reflect our best judgments based on the data available to us.

131. An element of the definition of "small business" is that the entity not be dominant in its field of operation. We were unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the following estimates of small businesses to which the new rules will apply do not exclude any television station from the definition of a small business on this basis and are therefore overinclusive to that extent. An additional element of the definition of "small business" is that the entity must be independently owned and operated. As discussed further below, we could not fully apply this

<sup>22</sup> We have pending proceedings seeking comment on the definition of and data relating to small businesses. In our *Notice of Inquiry* (61 FR 33066, June 26, 1996) in GN Docket No. 96-113 (In the Matter of section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Businesses), FCC 96-216, released May 21, 1996, we requested commenters to provide profile data about small telecommunications businesses in particular services, including television, and the market entry barriers they encounter, and we also sought comment as to how to define small businesses for purposes of implementing section 257 of the Telecommunications Act of 1996, which requires us to identify market entry barriers and to prescribe regulations to eliminate those barriers. Additionally, in our *Order and Notice of Proposed Rule Making* (61 FR 09964, March 12, 1996) in MM Docket No. 96-16 (In the Matter of Streamlining Broadcast EEO Rule and Policies, Vacating the EEO Forfeiture Policy Statement and Amending section 1.80 of the Commission's Rules to Include EEO Forfeiture Guidelines), 11 FCC Rcd 5154 (1996), we invited comment as to whether relief should be afforded to stations: (1) based on small staff and what size staff would be considered sufficient for relief, e.g., 10 or fewer full-time employees; (2) based on operation in a small market; or (3) based on operation in a market with a small minority work force. We have not concluded the foregoing rule makings.

criterion, and our estimates of small businesses to which the rules may apply may be overinclusive to this extent. The SBA's general size standards are developed taking into account these two statutory criteria. This does not preclude us from taking these factors into account in making our estimates of the numbers of small entities.

132. With respect to applying the revenue cap, the SBA has defined "annual receipts" specifically in 13 CFR 121.104, and its calculations include an averaging process. We do not currently require submission of financial data from licensees that we could use in applying the SBA's definition of a small business. Thus, for purposes of estimating the number of small entities to which the rules apply, we are limited to considering the revenue data that are publicly available, and the revenue data on which we rely may not correspond completely with the SBA definition of annual receipts.

133. Under SBA criteria for determining annual receipts, if a concern has acquired an affiliate or been acquired as an affiliate during the applicable averaging period for determining annual receipts, the annual receipts in determining size status include the receipts of both firms. 13 CFR 121.104(d)(1). The SBA defines affiliation in 13 CFR 121.103. In this context, the SBA's definition of affiliate is analogous to our attribution rules. Generally, under the SBA's definition, concerns are affiliates of each other when one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both. 13 CFR 121.103(a)(1). The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether affiliation exists. 13 CFR 121.103(a)(2). Instead of making an independent determination of whether television stations were affiliated based on SBA's definitions, we relied on the data bases available to us to provide us with that information.

134. *Television Station Estimates Based on Census Data*. The rules amended by this *Fifth Report and Order* will apply to all full service television stations and may have an effect on TV translator facilities and LPTV stations. The Small Business Administration defines a television broadcasting station that has no more than \$10.5 million in annual receipts as a small business. Television broadcasting stations consist of establishments primarily engaged in broadcasting visual programs by television to the public, except cable

and other pay television services.<sup>23</sup> Included in this industry are commercial, religious, educational, and other television stations.<sup>24</sup> Also included are establishments primarily engaged in television broadcasting and which produce taped television program materials.<sup>25</sup> Separate establishments primarily engaged in producing taped television program materials are classified under another SIC number.<sup>26</sup>

135. There were 1,509 television stations operating in the nation in 1992.<sup>27</sup> That number has remained fairly constant as indicated by the approximately 1,551 operating television broadcasting stations in the nation as of February 28, 1997.<sup>28</sup> For 1992<sup>29</sup> the number of television stations that produced less than \$10.0 million in revenue was 1,155 establishments, or 77% of 1,509 establishments.<sup>30</sup> Thus, the proposed rules will affect approximately 1,551 television stations; approximately 1,194 of those stations are considered small businesses.<sup>31</sup> These estimates may overstate the number of small entities since the revenue figures on which they are based

do not include or aggregate revenues from non-television affiliated companies. We recognize that the proposed rules may also impact minority and women owned stations, some of which may be small entities. In 1995, minorities owned and controlled 37 (3.0%) of 1,221 commercial television stations in the United States.<sup>32</sup> According to the U.S. Bureau of the Census, in 1987 women owned and controlled 27 (1.9%) of 1,342 commercial and non-commercial television stations in the United States.<sup>33</sup>

136. It should also be noted that the foregoing estimates do not distinguish between network-affiliated<sup>34</sup> stations and independent stations. As of April, 1996, the BIA Publications, Inc., Master Access Television Analyzer Database indicates that about 73 percent of all commercial television stations were affiliated with the ABC, CBS, NBC, Fox, UPN, or WB networks. Moreover, seven percent of those affiliates have secondary affiliations.<sup>35</sup>

137. There are currently 4,977 TV translator stations and 1,952 LPTV stations which would be affected by the new rules, if they decide to convert to digital television.<sup>36</sup> The Commission

does not collect financial information of any broadcast facility and the Department of Commerce does not collect financial information on these broadcast facilities. We will assume for present purposes, however, that most of these broadcast facilities, including LPTV stations, could be classified as small businesses. As we indicated earlier, 77% of television stations are designated as small businesses. Given this situation, LPTV and translator stations would not likely have revenues that exceed the SBA maximum to be designated as small businesses.

138. *Alternative Classification of Small Television Stations.* An alternative way to classify small television stations is by the number of employees. The Commission currently applies a standard based on the number of employees in administering its Equal Employment Opportunity ("EEO") rule for broadcasting.<sup>37</sup> Thus, radio or television stations with fewer than five full-time employees are exempted from certain EEO reporting and recordkeeping requirements.<sup>38</sup> We estimate that the total number of commercial television stations with 4 or fewer employees is 132 and that the total number of noncommercial educational television stations with 4 or fewer employees is 136.<sup>39</sup>

<sup>23</sup> Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications and Utilities, Establishment and Firm Size, Series UC92-S-1, Appendix A-9 (1995).

<sup>24</sup> *Id.* See Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987), at 283, which describes "Television Broadcasting Stations (SIC Code 4833) as:

Establishments primarily engaged in broadcasting visual programs by television to the public, except cable and other pay television services. Included in this industry are commercial, religious, educational and other television stations. Also included here are establishments primarily engaged in television broadcasting and which produce taped television program materials.

<sup>25</sup> Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, *supra* note 250.

<sup>26</sup> *Id.*; SIC 7812 (Motion Picture and Video Tape Production); SIC 7922 (Theatrical Producers and Miscellaneous Theatrical Services (producers of live radio and television programs).

<sup>27</sup> FCC News Release No. 31327, Jan. 13, 1993; Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, *supra* note 250, Appendix A-9.

<sup>28</sup> FCC News Release No. 7033, March 6, 1997.

<sup>29</sup> Census for Communications' establishments are performed every five years ending with a "2" or "7". See Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, *supra* note 250, III.

<sup>30</sup> The amount of \$10 million was used to estimate the number of small business establishments because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$10.5 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

<sup>31</sup> We use the 77 percent figure of TV stations operating at less than \$10 million for 1992 and apply it to the 1997 total of 1551 TV stations to arrive at 1,194 stations categorized as small businesses.

<sup>32</sup> *Minority Commercial Broadcast Ownership in the United States*, U.S. Dep't of Commerce, National Telecommunications and Information Administration, The Minority Telecommunications Development Program ("MTDP") (April 1996). MTDP considers minority ownership as ownership of more than 50% of a broadcast corporation's stock, voting control in a broadcast partnership, or ownership of a broadcasting property as an individual proprietor. *Id.* The minority groups included in this report are Black, Hispanic, Asian, and Native American.

<sup>33</sup> See Comments of American Women in Radio and Television, Inc. in MM Docket No. 94-149 and MM Docket No. 91-140, at 4 n.4 (filed May 17, 1995), citing 1987 Economic Censuses, *Women-Owned Business*, WB87-1, U.S. Dep't of Commerce, Bureau of the Census, August 1990 (based on 1987 Census). After the 1987 Census report, the Census Bureau did not provide data by particular communications services (four-digit Standard Industrial Classification (SIC) Code), but rather by the general two-digit SIC Code for communications (#48). Consequently, since 1987, the U.S. Census Bureau has not updated data on ownership of broadcast facilities by women, nor does the FCC collect such data. However, we sought comment on whether the Annual Ownership Report Form 323 should be amended to include information on the gender and race of broadcast license owners. *Policies and Rules Regarding Minority and Female Ownership of Mass Media Facilities*, Notice of Proposed Rulemaking, 10 FCC Rcd 2788, 2797 (1995).

<sup>34</sup> In this context, "affiliation" refers to any local broadcast television station that has a contractual arrangement with a programming network to carry the network's signal. This definition of affiliated station includes both stations owned and operated by a network and stations owned by other entities.

<sup>35</sup> Secondary affiliations are secondary to the primary affiliation of the station and generally afford the affiliate additional choice of programming.

<sup>36</sup> FCC News Release No. 7033, March 6, 1997.

<sup>37</sup> The Commission's definition of a small broadcast station for purposes of applying its EEO rule was adopted prior to the requirement of approval by the Small Business Administration pursuant to section 3(a) of the Small Business Act, 15 U.S.C. 632(a), as amended by section 222 of the Small Business Credit and Business Opportunity Enhancement Act of 1992, Public Law 102-366, section 222(b)(1), 106 Stat. 999 (1992), as further amended by the Small Business Administration Reauthorization and Amendments Act of 1994, Public Law 103-403, section 301, 108 Stat. 4187 (1994). However, this definition was adopted after public notice and an opportunity for comment. See *Report and Order* in Docket No. 18244, 23 FCC 2d 430 (1970).

<sup>38</sup> See, e.g., 47 CFR 73.3612 (Requirement to file annual employment reports on Form 395-B applies to licensees with five or more full-time employees); *First Report and Order* in Docket No. 21474 (In the Matter of Amendment of Broadcast Equal Employment Opportunity Rules and FCC Form 395), 70 FCC 2d 1466 (1979). The Commission is currently considering how to decrease the administrative burdens imposed by the EEO rule on small stations while maintaining the effectiveness of our broadcast EEO enforcement. *Order and Notice of Proposed Rule Making* in MM Docket No. 96-16 (In the Matter of Streamlining Broadcast EEO Rule and Policies, Vacating the EEO Forfeiture Policy Statement and Amending Section 1.80 of the Commission's Rules to Include EEO Forfeiture Guidelines), 11 FCC Rcd 5154 (1996). One option under consideration is whether to define a small station for purposes of affording such relief as one with ten or fewer full-time employees. *Id.* at ¶ 21.

<sup>39</sup> We base this estimate on a compilation of 1995 Broadcast Station Annual Employment Reports (FCC Form 395-B), performed by staff of the Equal Opportunity Employment Branch, Mass Media Bureau, FCC.

*Projected Compliance Requirements of the Rule*

The *Fifth Report and Order* adopts a number of rules, procedures, and policies, most of which are not expected to involve the imposition of new compliance requirements upon licensees or other entities. These include the rules: (1) Providing 6 MHz channels for each DTV channel; (2) limiting the initial eligibility for DTV channels to existing full-power broadcasters; (3) requiring licensees to provide at least one free digital video programming service that is at least comparable in resolution to today's service and aired during the same time periods that their analog channel is broadcasting; (4) allowing broadcasters full flexibility to respond to the demands of their audience by providing ancillary and supplementary services that do not derogate the mandated free, over-the-air program service; (5) giving broadcasters the discretion as to how much, if any, high definition television programming they will transmit; (6) refraining from imposing a simulcasting requirement upon broadcasters until the final years of the transition; (7) licensing NTSC and DTV television facilities under a single, paired license; (8) stating the Commission's intent to give special relief to noncommercial broadcasters to assist their transition to DTV, including providing them six years within which to construct DTV facilities; (9) allowing equipment manufacturers at this time maximum latitude to determine which video formats DTV equipment will receive, since broadcasters will have the latitude to decide which video formats they will transmit based on market and consumer demand; (10) postponing a decision whether to impose labeling requirements on receiver manufacturers; and (11) declining to limit the sale of NTSC-only display devices in the future.

139. We do expect that three of the rules we adopt today may constitute significant compliance requirements on small entities, as well as on others. First, pursuant to the rule setting a timetable for applying for and constructing DTV facilities, all licensees will have 90 days after the release date of the DTV Table of Allotments to inform the Commission if they do not want a DTV channel. After that, there will be three categories of construction requirements for commercial television stations. In the first category, all network-affiliated stations in the top ten television markets will have until May 1, 1999, to construct their digital facilities. In the second category, all network-affiliated stations in the top 30 television markets not

included above will have until November 1, 1999, to construct their digital facilities. In the third category, all other commercial stations will have until May 1, 2002, to construct their DTV facilities. All noncommercial stations will have until May 1, 2003, to construct their DTV facilities. We will ask that those stations that have represented to the Commission that they will complete construction of the DTV facility by November 1, 1998, file reports at six-month intervals, beginning on November 1, 1997, stating that their plans to meet these deadlines are on schedule or specifying any difficulties encountered in attempting to meet these deadlines. We will grant an extension of time where a broadcaster has been unable to complete construction due to circumstances that are either unforeseeable or beyond the licensee's control where the licensee has taken all possible steps to resolve the problem expeditiously.

140. The second rule with compliance requirements, that setting a deadline of 2006 for broadcasters to complete their transition to DTV by surrendering their NTSC spectrum, also affects small entities, as well as others. However, because stations will have constructed their DTV facilities by that time, pursuant to the timetable mentioned above, the compliance requirement is simply to cease transmitting NTSC signals.

141. The third rule with compliance requirements, that setting a graduated simulcast requirement for the last three years of the transition, also affects small entities, as well as others. However, because of the gradual nature of the requirement, as well as the multichannel capabilities of DTV, small entities are not expected to find it difficult to comply.

*Significant Alternatives Considered Minimizing the Economic Impact on Small Entities and Consistent with the Stated Objectives*

The *Fifth Report and Order* adopts a rule providing 6 MHz channels for each DTV channel. This represents the optimum balance of broadcast needs and spectrum efficiency, and it is consistent with the DTV Standard adopted in the *Fourth Report and Order*. To specify a different channel size at this late date would not promote the goals we sought to achieve in adopting the DTV Standard and would prolong the conversion to DTV, thereby putting broadcasters at a competitive disadvantage to other digital video program providers.

142. The *Fifth Report and Order* also adopts a rule limiting the initial

eligibility for DTV channels to existing full-power broadcasters, consistent with the statutory directive to do so contained in the Telecommunications Act of 1996. This minimizes the chances that small entities that already have full-service NTSC licenses or construction permits will be forced to surrender them. However, low power television broadcasters, many of which are small entities, would not automatically be eligible for DTV channels.

143. The *Fifth Report and Order* also adopts a rule requiring licensees to provide at least one free digital video programming service that is at least comparable in resolution to today's service and aired during the same time periods that their analog channel is broadcasting. Accordingly, the provision of this minimum service should impose no economic impact beyond that already imposed by the general requirement that stations construct and operate digital television facilities. At the same time, it ensures that viewers will continue to have access to over-the-air broadcast programming. Finally, it does not impede broadcasters' opportunities to generate revenue through additional advertiser-supported programming or subscription, if they choose.

144. The *Fifth Report and Order* also adopts a rule stating that broadcasters shall have full flexibility to respond to the demands of their audience by providing ancillary and supplementary services that do not derogate the mandated free, over-the-air program service. Such services could include, but are not limited to, subscription television programming, computer software distribution, data transmissions, teletext, interactive services, audio signals, and any other services that do not interfere with the required free service.

145. The *Fifth Report and Order* declines to impose a requirement that broadcasters provide a minimum amount of high definition television programming over the DTV spectrum, and instead leaves this decision to the discretion of broadcasters. Such a minimum requirement might be particularly burdensome on small broadcasters, including many independent and foreign-language stations.

146. The *Fifth Report and Order* also refrains from imposing a simulcasting requirement on broadcasters until the closing years of the transition. However, broadcasters at all times retain the option to simulcast, should they so choose. This discretion assures small entities, as well as others, the flexibility

to compete more efficiently in the video marketplace.

147. However, in order to help reclaim spectrum at the end of the transition period, the *Fifth Report and Order* requires that by the sixth year after its adoption, programming that is aired on a broadcaster's analog channel must be available on its digital channel. This will prevent disenfranchisement of the remaining NTSC viewers when the NTSC spectrum is reclaimed. Thus, commencing April 1, 2003, DTV licensees and permittees must simulcast at least 50% of the video programming transmitted on their analog channel; commencing April 1, 2004, there will be a 75% simulcasting requirement; commencing April 1, 2005, there will be a 100% simulcasting requirement until the analog channel is terminated and returned.

148. The *Fifth Report and Order* also determines that NTSC and DTV television facilities should be licensed under a single, paired license. This will help small broadcasters, as well as others, minimize their administrative burdens and the financial costs associated with them.

149. The *Fifth Report and Order* also sets a timetable by which stations must apply for and construct DTV facilities. It is important to foster an expeditious and orderly transition to digital technology that will allow the public to receive the benefits of digital television, so it is important that viewers in television markets have access to DTV programming and other digital services as quickly as possible. First, pursuant to the rule setting a timetable for applying for and constructing DTV facilities, all licensees will have 90 days after the release date of the DTV Table of Allotments to inform the Commission if they do not want a DTV channel. After that, there will be three categories of construction requirements for commercial television stations. In the first category, all network-affiliated stations in the top ten television markets will have until May 1, 1999, to construct their digital facilities. In the second category, all network-affiliated stations in the top 30 television markets not included above will have until November 1, 1999, to construct their digital facilities. In the third category, all other commercial stations will have until May 1, 2002, to construct their DTV facilities. All noncommercial stations will have until May 1, 2003, to construct their DTV facilities. We will require that those stations that have represented to the Commission that they will complete construction of the DTV facility by November 1, 1998, file reports at six-month intervals, beginning

on November 1, 1997, stating that their plans to meet these deadlines are on schedule or specifying any difficulties encountered in attempting to meet these deadlines. We will grant an extension of time where a broadcaster has been unable to complete construction due to circumstances that are either unforeseeable or beyond the licensee's control where the licensee has taken all possible steps to resolve the problem expeditiously.

150. An aggressive construction schedule is necessary for us to meet our main objectives in this proceeding. First, digital broadcast television stands a risk of failing unless it is rolled out quickly. Other media such as DBS, cable, and wireless cable have or soon will offer digital programming services. Unless digital television broadcasting is available quickly, other digital services may achieve levels of penetration that could preclude the success of over-the-air, digital television. Second, a rapid construction period is critical to DTV's competitive strength internationally, as well as domestically. Third, an aggressive construction schedule helps to offset possible disincentives that any individual broadcaster may have to begin digital transmissions quickly, as well as the absence of many market forces that might themselves ensure rapid construction. Fourth, a rapid build-out works to ensure that recovery of broadcast spectrum and its reallocation to other beneficial uses occurs as quickly as possible.

151. This construction schedule takes the needs and interests of small entities into account. The most aggressive requirements apply to stations that we believe will be in the best position to make the transition quickly: Network-affiliated stations in the top 10 television markets. These markets include approximately 30 percent of U.S. television households. Network-affiliated stations consistently have higher ratings, with higher audience numbers, and we assume with greater financial and other resources, so that the above construction requirement will both serve the public and be reasonably nonburdensome to broadcasters. In recognition of the fact that some networks may have in some of the larger markets a second affiliate that is not as strong as the other affiliate, we have minimized the burden on that weaker affiliate by imposing a longer construction deadline. Moreover, we are not requiring licensees initially to construct full-replication facilities. Instead, we are requiring them at the outset only to emit a DTV signal strong enough to encompass the community of license.

152. The *Fifth Report and Order* also concludes that broadcasters should have sufficient time between now and 2006 to complete their transitions to DTV and surrender their NTSC frequencies. It has become clear that conversion, both for stations and for viewers, will cost significantly less than thought at the time of the *Third Report and Order*, which had set a 15-year termination date. Thus, conversion can occur more quickly and NTSC spectrum can be surrendered sooner than earlier anticipated. In addition, the interests of small entities are served through our decision to conduct thorough reviews of the progress of DTV every two years, which will allow us to make adjustments to the 2006 target, if necessary.

153. The *Fifth Report and Order* also states the Commission's intent to give special relief to noncommercial broadcasters to assist their transition to DTV, including providing them with six years within which to construct their DTV facilities. In so doing, the Commission is recognizing the unique financial difficulties often faced by these entities, which, as noted earlier, are likely to be small entities.

154. The *Fifth Report and Order* allows equipment manufacturers at this time maximum latitude to determine which video formats DTV equipment will receive, since broadcasters will have the latitude to decide which video formats they will transmit based on market and consumer demand. We believe that it is likely that market forces will provide incentives for broadcasters and equipment manufacturers to work closely together to produce the receiver and converter designs most valued by consumers. The *Fifth Report and Order* also postpones a decision regarding labeling requirements for manufacturers of receivers. Finally, the *Fifth Report and Order* recognizes that there is an enormous embedded base of video cassette recorders, cable decoder boxes, laser disc players, and other video equipment that use NTSC receivers for non-broadcast purposes. Because there may be a continuing market for the sale of NTSC display devices, even after the conversion to DTV, we decline to limit the sale of NTSC-only display devices. These decisions allow small entities the maximum ability to determine and meet consumer interests.

155. As noted, at least two of our decisions may have a significant economic impact on a substantial number of small entities. We believe that the additional burdens on small entities cannot be diminished, however, without compromising the two primary

goals of this proceeding, as described earlier.

## VII. Report to Congress

156. The Commission shall send a copy of this Final Regulatory Flexibility Analysis along with this *Fifth Report and Order* in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996. See 5 U.S.C. 801(a)(1)(A). A copy of this FRFA (or a summary thereof) will also be published in the **Federal Register**.

157. For additional information concerning the information collections contained in this *Report and Order* contact Dorothy Conway at 202-418-0217.

### Ordering Clauses

158. Accordingly, *it is ordered* That, pursuant to sections 4 (i) & (j), 303(r), 307, 309, and 336 of the Communications Act of 1934 as amended, 47 U.S.C. 154 (i), (j) 303(r), 307, 309, and 336, Part 73 of the Commission's Rules is amended as set forth below.

159. *It is further ordered* That, pursuant to the Contract with America Advancement Act of 1996, the rule amendments set forth below shall be effective June 16, 1997. Written comments by the public on the new and/or modified information collections are due July 15, 1997.

160. *It is further ordered* That the new or modified paperwork requirements contained in this *Report and Order* (which are subject to approval by the Office of Management and Budget) will go into effect upon OMB approval.

161. *It is further ordered* That, upon release of this *Fifth Report and Order*, concurrently released with the *Sixth Report and Order*, this proceeding is hereby terminated.

162. For additional information concerning this proceeding, contact Saul Shapiro, Mass Media Bureau, (202) 418-2600; Mania K. Baghdadi, Mass Media Bureau, Policy and Rules Division, Legal Branch, (202) 418-2130; Dan Bring, Mass Media Bureau, Policy and Rules Division, Policy Analysis Branch, (202) 418-2170; or Gordon Godfrey, Mass Media Bureau, Policy and Rules Division, Engineering Policy Branch, (202) 418-2190.

### List of Subjects in 47 CFR Part 73

Television broadcasting.

Federal Communications Commission.

**William F. Caton,**  
*Acting Secretary.*

### Rule Changes

Part 73 of title 47 is amended as follows:

#### PART 73—RADIO BROADCAST SERVICES

1. The authority citation for part 73 is revised to read as follows:

**Authority:** 47 U.S.C. 154, 303, 334, 336.

2. Sections 73.624 and 73.625 are added to Subpart E to read as follows:

##### § 73.624 Digital Television Broadcast Stations.

(a) Digital television ("DTV") broadcast stations are assigned channels 6 MHz wide. Initial eligibility for licenses for DTV broadcast stations is limited to persons that, as of April 3, 1997, are licensed to operate a full power television broadcast station or hold a permit to construct such a station (or both).

(b) At any time that a DTV broadcast station permittee or licensee transmits a video program signal on its analog television channel, it must also transmit at least one over-the-air video program signal at no direct charge to viewers on the DTV channel that is licensed with the analog channel. The DTV program service provided pursuant to this paragraph must be at least comparable in resolution to the analog television station programming transmitted to viewers on the analog channel but, subject to paragraph (f) of this section, DTV broadcast stations are not required to simulcast the analog programming.

(c) Provided that DTV broadcast stations comply with paragraph (b) of this section, DTV broadcast stations are permitted to offer telecommunications services of any nature, consistent with the public interest, convenience, and necessity, on an ancillary or supplementary basis. The kinds of services that may be provided include, but are not limited to computer software distribution, data transmissions, teletext, interactive materials, aural messages, paging services, audio signals, subscription video, and any other services that do not derogate DTV broadcast stations' obligations under paragraph (b) of this section. Such services may be provided on a broadcast, point-to-point or point-to-multipoint basis, provided, however, that no video broadcast signal provided at no direct charge to viewers shall be considered ancillary or supplementary.

(1) DTV licensees that provide ancillary or supplementary services that

are analogous to other telecommunications services subject to regulation by the Commission must comply with the Commission regulations that apply to those services, provided, however, that no ancillary or supplementary service shall have any rights to carriage under sections 614 or 615 of the Communications Act of 1934, as amended, or be deemed a multichannel video programming distributor for purposes of section 628 of the Communications Act of 1934, as amended.

(2) In all arrangements entered into with outside parties affecting telecommunications service operation, the DTV licensee or permittee must retain control over all material transmitted in a broadcast mode via the station's facilities, with the right to reject any material that it deems inappropriate or undesirable. The licensee or permittee is also responsible for all aspects of technical operation involving such telecommunications services.

(3) In any application for renewal of a broadcast license for a television station that provides ancillary or supplementary services, a licensee shall establish that all of its program services on the analog and the DTV spectrum are in the public interest. Any violation of the Commission's rules applicable to ancillary or supplementary services will reflect on the licensee's qualifications for renewal of its license.

(d) Digital television broadcast facilities that comply with the FCC DTV Standard (section 73.682(d)), shall be constructed in the following markets by the following dates:

(1)(i) May 1, 1999: all network-affiliated television stations in the top ten television markets;

(ii) November 1, 1999: all network-affiliated television stations not included in category (1)(i) and in the top 30 television markets;

(iii) May 1, 2002: all remaining commercial television stations;

(iv) May 1, 2003: all noncommercial television stations.

(2) For the purposes of paragraph (d)(1)

(i) the term, "network," is defined to include the ABC, CBS, NBC, and Fox television networks;

(ii) the term, "television market," is defined as the Designated Market Area or DMA as defined by Nielsen Media Research as of April 3, 1997; and

(iii) the terms, "network-affiliated" or "network-affiliate," are defined to include those television stations affiliated with at least one of the four networks designated in paragraph (d)(2)(i) as of April 3, 1997. In those

DMA's in which a network has more than one network affiliate, paragraphs (d)(1) (i) and (ii) of this section shall apply to its network affiliate with the largest audience share for the 9 a.m. to midnight time period as measured by Nielsen Media Research in its Nielsen Station Index, Viewers in Profile, as of February, 1997.

(3) *Authority delegated.* (i) Authority is delegated to the Chief, Mass Media Bureau to grant an extension of time of up to six months beyond the relevant construction deadline specified in paragraph (d)(1) of this section upon demonstration by the DTV licensee or permittee that failure to meet that construction deadline is due to circumstances that are either unforeseeable or beyond the licensee's control where the licensee has taken all reasonable steps to resolve the problem expeditiously.

(ii) Such circumstances shall include, but shall not be limited to: (a) inability to construct and place in operation a facility necessary for transmitting digital television, such as a tower, because of delays in obtaining zoning or FAA approvals, or similar constraints; or (b) the lack of equipment necessary to obtain a digital television signal.

(iii) The Bureau may grant no more than two extension requests upon delegated authority. Subsequent extension requests shall be referred to the Commission. The Bureau may not on delegated authority deny an extension request but must refer recommended denials to the Commission.

(iv) Applications for extension of time shall be filed at least 30 days prior to the relevant construction deadline, absent a showing of sufficient reasons for filing within less than 30 days of the relevant construction deadline.

(e) The application for construction permit must be filed on Form 301 (except for noncommercial stations, which must file on Form 340) on or before the date on which half of the construction period has elapsed. Thus, for example, for applicants in category (d)(1)(i), the application for construction period must be filed by May 1, 1998.

(f)(i) Commencing on April 1, 2003, DTV television licensees and permittees must simulcast 50 percent of the video programming of the analog channel on the DTV channel.

(ii) Commencing on April 1, 2004, DTV licensees and permittees must simulcast 75% of the video programming of the analog channel on the DTV channel.

(iii) Commencing on April 1, 2005, DTV licensees and permittees must simulcast 100% of the video

programming of the analog channel on the DTV channel.

(iv) The simulcasting requirements imposed in paragraphs (f) (i)–(iii) of this section will terminate when the analog channel terminates operation and a 6 MHz channel is returned by the DTV licensee or permittee to the Commission.

**§ 73.625 DTV coverage of principal community and antenna system.**

*(a) Transmitter location.*

(1) The DTV transmitter location shall be chosen so that, on the basis of the effective radiated power and antenna height above average terrain employed, the following minimum F (50,90) field strength in dB above one uV/m will be provided over the entire principal community to be served:

Channels 2–6.....	28 dBu
Channels 7–13.....	36 dBu
Channels 14–69.....	41 dBu

(2) The location of the antenna must be so chosen that there is not a major obstruction in the path over the principal community to be served.

(3) For the purposes of this section, coverage is to be determined in accordance with paragraph (b) of this section. Under actual conditions, the true coverage may vary from these estimates because the terrain over any specific path is expected to be different from the average terrain on which the field strength charts were based. Further, the actual extent of service will usually be less than indicated by these estimates due to interference from other stations. Because of these factors, the predicted field strength contours give no assurance of service to any specific percentage of receiver locations within the distances indicated.

(b) *Determining coverage.* (1) In predicting the distance to the field strength contours, the F (50,50) field strength charts (Figures 9, 10 and 10b of § 73.699 of this part) and the F (50,10) field strength charts (Figures 9a, 10a and 10c of § 73.699 of this part) shall be used. To use the charts to predict the distance to a given F (50,90) contour, the following procedure is used: Convert the effective radiated power in kilowatts for the appropriate azimuth into decibel value referenced to 1 kW (dBk). Subtract the power value in dBk from the contour value in dBu. Note that for power less than 1 kW, the difference value will be greater than the contour value because the power in dBk is negative. Locate the difference value obtained on the vertical scale at the left edge of the appropriate F (50,50) chart for the DTV station's channel. Follow the horizontal line for that value into

the chart to the point of intersection with the vertical line above the height of the antenna above average terrain for the appropriate azimuth located on the scale at the bottom of the chart. If the point of intersection does not fall exactly on a distance curve, interpolate between the distance curves below and above the intersection point. The distance values for the curves are located along the right edge of the chart. Using the appropriate F (50,10) chart for the DTV station's channel, locate the point where the distance coincides with the vertical line above the height of the antenna above average terrain for the appropriate azimuth located on the scale at the bottom of the chart. Follow a horizontal line from that point to the left edge of the chart to determine the F (50,10) difference value. Add the power value in dBk to this difference value to determine the F (50,10) contour value in dBu. Subtract this difference from the F (50,50) contour value in dBu to determine the F (50,90) contour value in dBu at the pertinent distance along the pertinent radial.

(2) The effective radiated power to be used is that radiated at the vertical angle corresponding to the depression angle between the transmitting antenna center of radiation and the radio horizon as determined individually for each azimuthal direction concerned. In cases where the relative field strength at this depression angle is 90% or more of the maximum field strength developed in the vertical plane containing the pertaining radial, the maximum radiation shall be used. The depression angle is based on the difference in elevation of the antenna center of radiation above the average terrain and the radio horizon, assuming a smooth spherical earth with a radius of 8,495.5 kilometers (5,280 miles) and shall be determined by the following equation:

$$A = 0.0277 \text{ square root of } H$$

Where:

A is the depression angle in degrees.

H is the height in meters of the transmitting antenna radiation center above average terrain of the 3.2–16.1 kilometers (2–10 miles) sector of the pertinent radial.

This formula is empirically derived for the limited purpose specified here. Its use for any other purpose may be inappropriate.

(3) Applicants for new DTV stations or changes in the facilities of existing DTV stations must submit to the FCC a showing as to the location of their stations' or proposed stations' contour. This showing is to include a map showing this contour, except where applicants have previously submitted

material to the FCC containing such information and it is found upon careful examination that the contour locations indicated therein would not change, on any radial, when the locations are determined under this section. In the latter cases, a statement by a qualified engineer to this effect will satisfy this requirement and no contour maps need be submitted.

(4) The antenna height to be used with these charts is the height of the radiation center of the antenna above the average terrain along the radial in question. In determining the average elevation of the terrain, the elevations between 3.2–16.1 kilometers (2–10 miles) from the antenna site are employed. Profile graphs shall be drawn for 8 radials beginning at the antenna site and extending 16.1 kilometers (10 miles) therefrom. The radials should be drawn for each 45 degrees of azimuth starting with True North. At least one radial must include the principal community to be served even though such community may be more than 16.1 kilometers (10 miles) from the antenna site. However, in the event none of the evenly spaced radials include the principal community to be served and one or more such radials are drawn in addition to the 8 evenly spaced radials, such additional radials shall not be employed in computing the antenna height above average terrain. Where the 3.2–16.1 kilometers (2–10 mile) portion of a radial extends in whole or in part over large bodies of water (such as ocean areas, gulfs, sounds, bays, large lakes, etc., but not rivers) or extends over foreign territory but the contour encompasses land area within the United States beyond the 16.1 kilometers (10 mile) portion of the radial, the entire 3.2–16.1 kilometers (2–10 mile) portion of the radial shall be included in the computation of antenna height above average terrain. However, where the contour does not so encompass United States land area and (1) the entire 3.2–16.1 kilometers (2–10 mile) portion of the radial extends over large bodies of water or foreign territory, such radial shall be completely omitted from the computation of antenna height above average terrain, and (2) where a part of the 3.2–16.1 kilometers (2–10 mile) portion of a radial extends over large bodies of water or over foreign territory, only that part of the radial extending from the 3.2 kilometer (2 mile) sector to the outermost portion of land area within the United States covered by the radial shall be employed in the computation of antenna height above average terrain. The profile graph for each radial should be plotted by

contour intervals of from 12.2–30.5 meters (40–100 feet) and, where the data permits, at least 50 points of elevation (generally uniformly spaced) should be used for each radial. In instances of very rugged terrain where the use of contour intervals of 30.5 meters (100 feet) would result in several points in a short distance, 61.0–122.0 meter (200–400 foot) contour intervals may be used for such distances. On the other hand, where the terrain is uniform or gently sloping the smallest contour interval indicated on the topographic map (see paragraph (b)(5) of this section) should be used, although only relatively few points may be available. The profile graphs should indicate the topography accurately for each radial, and the graphs should be plotted with the distance in kilometers as the abscissa and the elevation in meters above mean sea level as the ordinate. The profile graphs should indicate the source of the topographical data employed. The graph should also show the elevation of the center of the radiating system. The graph may be plotted either on rectangular coordinate paper or on special paper which shows the curvature of the earth. It is not necessary to take the curvature of the earth into consideration in this procedure, as this factor is taken care of in the charts showing signal strengths. The average elevation of the 12.9 kilometer (8 miles) distance between 3.2–16.1 kilometers (2–10 miles) from the antenna site should then be determined from the profile graph for each radial. This may be obtained by averaging a large number of equally spaced points, by using a planimeter, or by obtaining the median elevation (that exceeded for 50% of the distance) in sectors and averaging those values. In directions where the terrain is such that negative antenna heights or heights below 30.5 meters (100 feet) for the 3.2 to 16.1 kilometers (2 to 10 mile) sector are obtained, an assumed height of 30.5 meters (100 feet) shall be used for the prediction of coverage. However, where the actual contour distances are critical factors, a supplemental showing of expected coverage must be included together with a description of the method employed in predicting such coverage. In special cases, the Commission may require additional information as to terrain and coverage.

(5) In the preparation of the profile graph previously described, and in determining the location and height above sea level of the antenna site, the elevation or contour intervals shall be taken from the United States Geological Survey Topographic Quadrangle Maps, United States Army Corps of Engineers'

maps or Tennessee Valley Authority maps, whichever is the latest, for all areas for which such maps are available. If such maps are not published for the area in question, the next best topographic information should be used. Topographic data may sometimes be obtained from State and Municipal agencies. Data from Sectional Aeronautical Charts (including bench marks) or railroad depot elevations and highway elevations from road maps may be used where no better information is available. In cases where limited topographic data is available, use may be made of an altimeter in a car driven along roads extending generally radially from the transmitter site. United States Geological Survey Topographic Quadrangle Maps may be obtained from the United States Geological Survey, Department of the Interior, Washington, D.C. 20240. Sectional Aeronautical Charts are available from the United States Coast and Geodetic Survey, Department of Commerce, Washington, D.C. 20235. In lieu of maps, the average terrain elevation may be computer generated, except in the cases of dispute, using elevations from a 30 second point or better topographic data file. The file must be identified and the data processed for intermediate points along each radial using linear interpolation techniques. The height above mean sea level of the antenna site must be obtained manually using appropriate topographic maps.

(c) *Antenna system.* (1) The antenna system shall be designed so that the effective radiated power at any angle above the horizontal shall be as low as the state of the art permits, and in the same vertical plane may not exceed the effective radiated power in either the horizontal direction or below the horizontal, whichever is greater.

(2) An antenna designed or altered to produce a noncircular radiation pattern in the horizontal plane is considered to be a directional antenna. Antennas purposely installed in such a manner as to result in the mechanical beam tilting of the major vertical radiation lobe are included in this category.

(3) Applications proposing the use of directional antenna systems must be accompanied by the following:

(i) Complete description of the proposed antenna system, including the manufacturer and model number of the proposed directional antenna.

(ii) Relative field horizontal plane pattern (horizontal polarization only) of the proposed directional antenna. A value of 1.0 should be used for the maximum radiation. The plot of the pattern should be oriented so that 0 degrees corresponds to true North.

Where mechanical beam tilt is intended, the amount of tilt in degrees of the antenna vertical axis and the orientation of the downward tilt with respect to true North must be specified, and the horizontal plane pattern must reflect the use of mechanical beam tilt.

(iii) A tabulation of the relative field pattern required in paragraph (c)(3)(ii) of this section. The tabulation should use the same zero degree reference as the plotted pattern, and be tabulated at least every 10 degrees. In addition, tabulated values of all maxima and minima, with their corresponding azimuths, should be submitted.

(iv) Horizontal and vertical plane radiation patterns showing the effective radiated power, in dBk, for each direction. Sufficient vertical plane patterns must be included to indicate clearly the radiation characteristics of the antenna above and below the horizontal plane. In cases where the angles at which the maximum vertical radiation varies with azimuth, a separate vertical radiation pattern must be provided for each pertinent radial direction.

(v) All horizontal plane patterns must be plotted to the largest scale possible on unglazed letter-size polar coordinate paper (main engraving approximately 18 cm x 25 cm (7 inches x 10 inches)) using only scale divisions and subdivisions of 1, 2, 2.5, or 5 times 10-nth. All vertical plane patterns must be plotted on unglazed letter-size rectangular coordinate paper. Values of field strength on any pattern less than 10 percent of the maximum field strength plotted on that pattern must be shown on an enlarged scale.

(vi) The horizontal and vertical plane patterns that are required are the patterns for the complete directional antenna system. In the case of a composite antenna composed of two or more individual antennas, this means that the patterns for the composite antenna, not the patterns for each of the individual antennas, must be submitted.

(4) Where simultaneous use of antennas or antenna structures is proposed, the following provisions shall apply:

(i) In cases where it is proposed to use a tower of an AM broadcast station as a supporting structure for a DTV broadcast antenna, an appropriate application for changes in the radiating system of the AM broadcast station must be filed by the licensee thereof. A formal application (FCC Form 301, or FCC Form 340 for a noncommercial educational station) will be required if the proposal involves substantial change in the physical height or radiation characteristics of the AM broadcast

antennas; otherwise an informal application will be acceptable. (In case of doubt, an informal application (letter) together with complete engineering data should be submitted.) An application may be required for other classes of stations when the tower is to be used in connection with a DTV station.

(ii) When the proposed DTV antenna is to be mounted on a tower in the vicinity of an AM station directional antenna system and it appears that the operation of the directional antenna system may be affected, an engineering study must be filed with the DTV application concerning the effect of the DTV antenna on the AM directional radiation pattern. Field measurements of the AM stations may be required prior to and following construction of the DTV station antenna, and readjustments made as necessary.

[FR Doc. 97-12527 Filed 5-15-97; 8:45 am]  
BILLING CODE 6712-01-P

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 679

[Docket No. 961107312-7021-02; I.D. 051297A]

#### Fisheries of the Exclusive Economic Zone Off Alaska; Greenland Turbot in the Aleutian Islands Subarea

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Modification of a closure.

**SUMMARY:** NMFS issues a modification of a closure from prohibiting retention to closing the season for directed fishing for Greenland turbot in the Aleutian Islands subarea of the Bering Sea and Aleutian Islands management area (BSAI) by vessels using hook-and-line gear. This action is necessary to prevent significant discard of incidental catch of Greenland turbot.

**DATES:** Effective 1200 hrs, Alaska local time (A.l.t.), May 12, 1997, until 2400 hrs, A.l.t., December 31, 1997.

**FOR FURTHER INFORMATION CONTACT:** Mary Furuness, 907-586-7228.

**SUPPLEMENTARY INFORMATION:** The groundfish fishery in the BSAI exclusive economic zone is managed by NMFS according to the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (FMP) prepared by the North Pacific Fishery Management Council under

authority of the Magnuson-Stevens Fishery Conservation and Management Act. Fishing by U.S. vessels is governed by regulations implementing the FMP at subpart H of 50 CFR part 600 and 50 CFR part 679.

In accordance with § 679.25(a)(1)(i) and (a)(2)(iii), retention of Greenland turbot by vessels using hook-and-line gear in the Aleutian Islands subarea of the BSAI was prohibited to prevent the overfishing of the shorttraker/rougheye rockfish species group. This action was filed for public inspection by the Office of the Federal Register on May 9, 1997, and scheduled for publication in the **Federal Register** on May 14, 1997. This action would produce significant discard of incidental catch of Greenland turbot in the sablefish Individual Fishing Quota fishery. In order to prevent the waste of Greenland turbot and prevent the overfishing of shorttraker/rougheye rockfish species group, it is necessary to eliminate the prohibition of retention of Greenland turbot and substitute the closure of the season for directed fishing for that species.

The Administrator, Alaska Region, NMFS (Regional Administrator), has determined, in accordance with § 679.25(a)(1)(i), (a)(2)(i)(A) and (a)(2)(iii)(B), that closing the season by prohibiting directed fishing of Greenland turbot by vessels using hook-and-line gear will prevent overfishing of the shorttraker/rougheye rockfish species group, and is the least restrictive measure to achieve this purpose. Without this modification, significant discard of incidental catch of Greenland turbot would occur by hook-and-line vessels.

Therefore, NMFS is terminating the previous prohibition of retention and is closing the season for directed fishing for Greenland turbot by vessels using hook-and-line gear in the Aleutian Islands subarea of the BSAI.

Maximum retainable bycatch amounts for applicable gear types may be found in the regulations at § 679.20(e) and (f).

This action responds to the best available information recently obtained from the fishery. It must be implemented immediately in order to prevent significant discard of incidental catch of Greenland turbot in the Aleutian Islands subarea of the BSAI. A delay in the effective date is impracticable and contrary to the public interest. The fleet has not taken the 1997 TAC of Greenland turbot in the Aleutian Islands. Further delay would only result in discards which would disrupt the FMP's objective of providing sufficient Greenland turbot as bycatch to support other anticipated groundfish fisheries.