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and 10 years, demonstrating compliance with the relevant construction benchmark criteria.

- (1) An overall status report of the system, that must include, but need not be limited to:
- (i) A list of all sites at which base stations have been constructed, with antenna heights and effective radiated power specified for each site;
- (ii) A list of all other known base station sites at which construction has not been completed; and
- (iii) A construction and operational schedule for the next five-year period, including any known changes to the plan for construction and operation submitted with the licensee's original application for the system.
- (2) An analysis of the system's compliance with the requirements of paragraph (a) of this section, with documentation to support representations of completed construction, including, but not limited to:
- (i) Equipment purchase orders and contracts;
- (ii) Lease or purchase contracts relating to antenna site arrangements;
- (iii) Equipment and antenna identification (serial) numbers; and
 - (iv) Service agreements and visits.
- (e) Beginning with its second license term, each nationwide licensee must file a progress report once every five years on the anniversary date of the grant of the first renewal of its authorization, including the information required by paragraph (d)(1) of this section.
- (f) Licensees authorized Phase I nonnationwide systems, or authorized on Channels 161 through 170 or Channels 181 through 185, must construct their systems (i.e., have all specified base stations constructed with all channels) and place their systems in operation, or commence service in accordance with the provisions of §90.167, within twelve months of the initial license grant date. Authorizations for systems not constructed and placed in operation, or having commenced service, within twelve months from the date of initial license grant cancel automatically.
- (g) A licensee that loses authorization for some or all of its channels due to failure to meet construction dead-

lines or benchmarks may not reapply for nationwide channels in the same category or for non-nationwide channels in the same category in the same geographic area for one year from the date the Commission takes final action affirming that those channels have been cancelled.

(h) The requirements and conditions of paragraphs (a) through (e) and paragraph (g) of this section apply to nationwide licensees that construct and operate stations for fixed or paging operations on a primary basis instead of, or in addition to, stations for land mobile operations on a primary basis except that, in satisfying the base station construction and placed in operation requirements of paragraph (a) of this section and the system progress report requirements of paragraphs (d) and (e) of this section, licensees operating stations for fixed operation on a primary basis instead of, or in addition to, stations for land mobile or paging operations on a primary basis in a given geographic area may demonstrate how such fixed stations are providing substantial service to the public in those geographic areas.

[56 FR 19603, Apr. 29, 1991, as amended at 56 FR 32517, July 17, 1991; 57 FR 32450, July 22, 1992; 58 FR 36363, July 7, 1993; 62 FR 15996, Apr. 3, 1997; 63 FR 49295, Sept. 15, 1998]

§ 90.727 Extended implementation schedules for Phase I licensees.

Except for nationwide and commercial systems, a period of up to three (3) years may be authorized for constructing and placing a system in operation if:

- (a) The applicant submits justification for an extended implementation period. The justification must include reasons for requiring an extended construction period, the proposed construction schedule (with milestones), and must show either that:
- (1) The proposed system will serve a large fleet of mobile units and will involve a multi-year cycle for its planning, approval, funding, purchase, and construction; or
- (2) The proposed system will require longer than 8 months to place in operation because of its purpose, size, or complexity; or

- (3) The proposed system is to be part of a coordinated or integrated areawide system which will require more than 8 months to construct; or
- (4) The applicant is a local governmental agency and demonstrates that the government involved is required by law to follow a multi-year cycle for planning, approval, funding, and purchasing the proposed system.
- (b) Authorizations under this section are conditioned upon the licensee's compliance with the submitted extended implementation schedule. Failure to meet the schedule will result in loss of authorizations for facilities not constructed.

[56 FR 19603, Apr. 29, 1991, as amended at 56 FR 32517, July 17, 1991]

§ 90.729 Limitations on power and antenna height.

(a) The permissible effective radiated power (ERP) with respect to antenna heights for land mobile, paging, or fixed stations transmitting on frequencies in the 220–221 MHz band shall be determined from the following Table. These are maximum values and applicants are required to justify power levels requested.

ERP vs. Antenna Height Table²

Antenna height above average terrain (HAAT), meters	Effective radiated power, watts 1
Up to 150	500 250 125 60 30 20 15

- ¹Transmitter PEP shall be used to determine ERP. ²These power levels apply to stations used for land mobile, paging, and fixed operations.
- (b) The maximum permissible ERP for mobile units is 50 watts. Portable units are considered as mobile units. Licensees operating fixed stations or paging base stations transmitting on frequencies in the 221–222 MHz band may not operate such fixed stations or paging base stations at power levels greater than 50 watts ERP, and may not transmit from antennas that are higher than 7 meters above average terrain, except that transmissions from

antennas that are higher than 7 meters above average terrain will be permitted if the effective radiated power of such transmissions is reduced below 50 watts ERP by $20~\log_{10}(h/7)~dB$, where h is the height above average terrain (HAAT), in meters.

- (c) Base station and fixed station transmissions on base station transmit Channels 196–200 are limited to 2 watts ERP and a maximum antenna HAAT of 6.1 meters (20 ft). Licensees authorized on these channels may operate at power levels above 2 watts ERP or with a maximum antenna HAAT greater than 6.1 meters (20 ft) if:
- (1) They obtain the concurrence of all Phase I and Phase II licensees with base stations or fixed stations receiving on base station receive Channels 1–40 and located within 6 km of their base station or fixed station; and
- (2) Their base station or fixed station is not located in the United States/Mexico or United States/Canada border areas.

[62 FR 15996, Apr. 3, 1997, as amended at 63 FR 32590, June 12, 1998]

§ 90.733 Permissible operations.

- (a) Systems authorized in the 220–222 MHz band may be used:
- (1)(i) For government and non-government land mobile operations, *i.e.*, for base/mobile and mobile relay transmissions, on a primary basis; or
- (ii) For the following operations instead of or in addition to a licensee's land mobile operations: One-way or two-way paging operations on a primary basis by all non-Government Phase II licensees, fixed operations on a primary basis by all non-Government Phase II licensees and all Government licensees, one-way or two-way paging or fixed operations on a primary basis by all non-Government Phase I licensees, except that before a non-Government Phase I licensee may operate one-way or two-way paging or fixed systems on a primary basis instead of or in addition to its land mobile operations, it must meet the following requirements:
- (A) A nationwide Phase I licensee must: