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FEDERAL REGISTER

VOLUME 29 NUMBER 102

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Rules and Regulations

Title 7—AGRICULTURE

Chapter IX—Agricultural Marketing Service (Marketing Agreements and Orders; Fruits, Vegetables, Tree Nuts), Department of Agriculture

[Valencia Orange Reg. 85]

PART 908—VALENCIA ORANGES GROWN IN ARIZONA AND DESIGNATED PART OF CALIFORNIA

Limitation of Handling

§ 908.385 Valencia Orange Regulation 85.

(a) *Findings.* (1) Pursuant to the marketing agreement, as amended, and Order No. 908, as amended (7 CFR Part 908; 27 F.R. 10089), regulating the handling of Valencia oranges grown in Arizona and designated part of California, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674), and upon the basis of the recommendations and information submitted by the Valencia Orange Administrative Committee, established under the said amended marketing agreement and order, and upon other available information, it is hereby found that the limitation of handling of such Valencia oranges, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule making procedure, and postpone the effective date of this section until 30 days after publication hereof in the FEDERAL REGISTER (5 U.S.C. 1001–1011) because the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, and a reasonable time is permitted, under the circumstances, for preparation for such effective time; and good cause exists for making the provisions hereof effective as hereinafter set forth. The committee held an open meeting during the current week, after giving due notice thereof, to consider supply and market conditions for Valencia oranges and the need for regulation; interested persons were afforded an opportunity to submit information and views at this meeting; the recommendation and supporting information for regulation during the period specified herein were promptly submitted to the Department after such meeting was held; the provisions of this section, including its effective time, are identical with the aforesaid recommendation of the committee, and information concerning such provisions and effective time has been disseminated among handlers of such Valencia oranges; it is necessary, in order to effectuate the declared policy of the act, to make this section effective during the period herein specified; and compliance with this section will not require any special preparation on the part of persons subject hereto which cannot be completed on or before the effective date hereof. Such committee meeting was held on May 21, 1964.

(b) *Order.* (1) The respective quantities of Valencia oranges grown in Arizona and designated part of California which may be handled during the period beginning at 12:01 a.m., P.s.t., May 24, 1964, and ending at 12:01 a.m., P.s.t., May 31, 1964, are hereby fixed as follows:

(i) District 1: 450,000 cartons;

(ii) District 2: 330,817 cartons;

(iii) District 3: Unlimited movement.

(2) As used in this section, "handled," "handler," "District 1," "District 2," and "District 3," and "carton" have the same meaning as when used in said amended marketing agreement and order.

(Secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674)

Dated: May 22, 1964.

PAUL A. NICHOLSON,
Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[F.R. Doc. 64–5276; Filed, May 22, 1964; 11:20 a.m.]

[Lemon Reg. 112]

PART 910—LEMONS GROWN IN CALIFORNIA AND ARIZONA

Limitation of Handling

§ 910.412 Lemon Regulation 112.

(a) *Findings.* (1) Pursuant to the marketing agreement, as amended, and Order No. 910, as amended (7 CFR Part 910; 27 F.R. 8346), regulating the handling of lemons grown in California and Arizona, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674), and upon the basis of the recommendation and information submitted by the Lemon Administrative Committee, established under the said amended marketing agreement and order, and upon other available information, it is hereby found that the limitation of handling of such lemons as hereinafter provided will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule making procedure, and postpone the effective date of this section until 30 days after publication hereof in the FEDERAL REGISTER (5 U.S.C. 1001–1011) because the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, and a reasonable time is permitted, under the circumstances, for preparation for such effective time; and good cause exists for making the provisions hereof effective as hereinafter set forth. The committee held an open meeting during the current week, after giving due notice thereof, to consider supply and market conditions for lemons and the need for regulation; interested persons were afforded an opportunity to submit information and views at this meeting; the recommendation and supporting information for regulation during the period specified herein were promptly submitted to the Department after such meeting was held; the provisions of this section, including its effective time, are identical with the aforesaid recommendation of the committee, and information concerning such provisions and effective time has been disseminated among handlers of such lemons; it is necessary, in order to effectuate the declared policy of the act, to make this section effective during the period herein specified; and compliance with this section will not require any special preparation on the part of persons subject hereto which cannot be completed on or before the effective date hereof. Such committee meeting was held on May 19, 1964.

(b) *Order.* (1) The respective quantities of lemons grown in California and Arizona which may be handled during the period beginning at 12:01 a.m., P.s.t., May 24, 1964, and ending at 12:01 a.m., P.s.t., May 31, 1964, are hereby fixed as follows:

(i) District 1: Unlimited movement;

(ii) District 2: 372,000 cartons;

(iii) District 3: Unlimited movement.

(2) As used in this section, "handled," "District 1," "District 2," "District 3," and "carton" have the same meaning as when used in the said amended marketing agreement and order.

(Secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674)

Dated: May 21, 1964.

PAUL A. NICHOLSON,
Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[F.R. Doc. 64–5218; Filed, May 22, 1964; 8:51 a.m.]

Title 14—AERONAUTICS AND SPACE

Chapter I—Federal Aviation Agency

SUBCHAPTER D—AIRMEN [NEW]

[Reg. Docket No. 1615; Amdt. 61–9]

PART 61—CERTIFICATION: PILOTS AND FLIGHT INSTRUCTORS [NEW]

Revision of Minimum Aeronautical Experience Requirements for an Instrument Rating

The purpose of this amendment to Part 61 [New] of the Federal Aviation

Regulations is to revise the instrument experience and minimum flight time requirements for the issuance of an instrument rating. It was proposed in Draft Release No. 63–6 issued February 19, 1963 (28 F.R. 1881).

Many written comments on the draft release were received from industry organizations, flying schools, flight instructors, private pilots, and executive operators and pilots.

The comments were almost unanimously in favor of the proposed increase in instrument flight instruction and additional flight training maneuvers.

Strong objections were received to the proposed deletion of the commercial pilot experience requirements for the private pilot who applies for an instrument rating. On the other hand, some commenters wholeheartedly endorsed the proposal and hailed it as a progressive step and a definite contribution to safety.

The principal objections to reduction of the experience requirements for the private pilot applicant were based on the feeling that a person with less than the total flight time required for a commercial pilot certificate would not have the "seasoning" and maturity of judgment which is very important in modern IFR operations. Considerable concern was expressed in a number of comments about flying under IFR if pilots with the limited experience which would be possible under the proposal in Draft Release 63–6 were allowed to engage in IFR operations. It was also contended that the mere ability to satisfactorily accomplish the maneuvers in the instrument rating flight test gives no assurance that a pilot would exhibit the same skills and judgment under the stress of actual IFR operation and, consequently, that the present total flight time requirements provide an overall background of experience which should not be reduced. A number of comments pointed out that better equipped aircraft, the diversity of ground facilities, and increased IFR traffic actually complicate rather than simplify instrument operations, with resulting increased demands on the pilot and that, if any change is to be made, the flight time requirements should be increased instead of decreased.

Proponents of the proposed elimination of the commercial pilot experience requirement for the private pilot applicant contended that the acquisition of an additional 120 hours or so of miscellaneous flying would give no assurance that the pilot would have any better judgment or be better qualified to operate under IFR, than would be the case if he were permitted to qualify for an instrument rating without regard to his total flight time. They also contended that: (1) By making it easier to secure an instrument rating, many more private pilots would be encouraged to secure additional instrument training and an instrument rating, and, in so doing, become better and safer pilots and able to get more utility from the aircraft they fly; (2) total pilot experience is a poor measure of airman competency; and (3) a pilot is often more receptive to instrument training soon after having qualified for a private certificate than he is after having reached the 200-hour total time point with a considerable amount of unsupervised flying.

Two commenters suggested that, as an alternate solution to the experience requirement, the private pilot applicant be required to meet only the cross-country portions of the commercial pilot experience requirements.

Other comments indicated that some persons misconstrued proposed § 61.35 (c) as not requiring that the 15 hours of instrument flight instruction be given by a flight instructor who is certificated to give instrument flight instruction. This has been clarified.

The proposed reduction in total flight time for the private pilot applicant for an instrument rating is a controversial item, with strong arguments on each side. After careful consideration of all issues involved, the Agency has concluded that, in view of the foregoing arguments against the proposed change, it is sufficiently doubtful that this action would permit the maintenance of present safety levels in IFR operations, as to make its adoption inappropriate. Therefore, the Agency has dropped the proposed change.

The increase in amount of instrument flight instruction and the additional flight training maneuvers proposed in the draft release received very favorable comments. These proposed changes would provide for more realistic and practical training standards and therefore are being adopted.

Accordingly, § 61.35(a)(2) is amended to clarify that an applicant who is a private pilot must meet the requirements of § 61.115(a) except subparagraphs (3) and (4) thereof. This will dispel any doubt as to the applicability of the 200-hour flight time requirement and be consistent with § 61.29(a). The regulatory history of this requirement as contained in Part 20 of the Civil Air Regulations makes it clear that the intent was to exempt the applicant only from the 10 hours of flight instruction in preparation for the commercial pilot flight test. This is the interpretation which has been followed in the past. In complying with § 61.35(c), the applicant will have met the requirements of § 61.115(a)(4).

Section 61.35(c) is amended to incorporate the additional instrument flight instruction and training maneuvers as proposed in the draft release, except that the language is rephrased to avoid any misunderstanding of the fact that the 15 hours of instrument flight instruction must be given by a flight instructor who is rated to give instrument flight instruction.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, § 61.35 of Part 61 [New] of the Federal Aviation Regulations is amended, effective July 27, 1964, to read as follows:

§ 61.35 Instrument rating; knowledge and experience requirements.

(a) An applicant for an instrument rating must hold at least—

(1) A commercial pilot certificate; or

(2) A private pilot certificate and meet the requirements of § 61.115(a) except subparagraphs (3) and (4) thereof.

(b) An applicant for an instrument rating must pass a written test on—

(1) This subchapter as it applies to flight under IFR conditions;

(2) Radio navigation systems and procedures, instrument landing systems and procedures, and radio communication procedures; and

(3) Meteorology, including the characteristics of air masses and fronts and the weather associated with them, elementary principles of forecasting, and the availability, evaluation, and utilization of meteorological reports.

(c) An applicant for an instrument rating must have at least 40 hours of instrument time under actual or simulated conditions (including time acquired in a synthetic trainer), of which at least 20 hours were in flight and at least 15 hours were instrument flight instruction given by a flight instructor with an instrument rating on his flight instructor certificate. The required instrument flight instruction must include at least—

(1) An instrument approach down to the published minimums at two different locations, at least one of which must have a VOR or ILS facility that is used for the approach;

(2) Two instrument approaches made in accordance with a clearance from air traffic control and including transition from en route airways instrument flight to the approach fix or facility from which the approach will begin; and

(3) One flight of at least 200 nautical miles on Federal airways while operating in accordance with an approved IFR flight plan.

The flight required by subparagraph (3) of this paragraph must include at least two compulsory reporting points and use VHF navigation facilities for at least one leg of the course. During the flight at least one instrument approach must be made down to the published minimums, at a place where the trainee has not previously made an instrument approach.

(Secs. 313(a), 601, 602 of the Federal Aviation Act of 1958; 49 U.S.C. 1354, 1421, 1422)

Issued in Washington, D.C., on May 19, 1964.

N. E. HALABY,
Administrator.

[F.R. Doc. 64–5150; Filed, May 22, 1964; 8:45 a.m.]

SUBCHAPTER F—AIR TRAFFIC AND GENERAL OPERATING RULES [NEW]

[Reg. Docket No. 5028; Amdt. 374]

PART 97—STANDARD INSTRUMENT APPROACH PROCEDURES [NEW]

Miscellaneous Amendments

The amendments to the standard instrument approach procedures contained herein are adopted to become effective when indicated in order to promote safety. The amended procedures supersede the existing procedures of the same classification now in effect for the airports specified therein. For the convenience of the users, the complete procedure is republished in this amendment indicating the changes to the existing procedures.

As a situation exists which demands immediate action in the interests of safety in air commerce, I find that compliance with the notice and procedure provisions of the Administrative Procedure Act is impracticable and that good cause exists for making this amendment effective within less than 30 days from publication.

In view of the foregoing and pursuant to the authority delegated to me by the Administrator (24 F.R. 5662), Part 97 [New] (14 CFR Part 97 [New]) is amended as follows:

1. By amending the following low or medium frequency range procedures prescribed in § 97.11(a) to read:

LFR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	

PROCEDURE CANCELLED EFFECTIVE 30 MAY 1964, OR UPON DECOMMISSIONING OF FACILITY.

City, Stuttgart; State, Ark.; Airport Name, Municipal; Elev., 224'; Fac. Class., MRLWZ; Ident., SGT; Procedure No. 1, Amdt. Orig.; Eff. Date, 28 Sept. 63

2. By amending the following automatic direction finding procedures prescribed in § 97.11(b) to read:

ADF STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
BC-LFR	LOM	Direct	2400	T-dn	300-1	300-1	200-½
BFL-VOR	LOM	Direct	2400	C-dn	500-1	500-1	500-1½
Maricopa Int	LOM	Direct	3000	S-dn-30R	400-1	400-1	400-1
Arvin Int	LOM (final)	Direct	2000	A-dn	800-2	800-2	800-2

Procedure turn S* side of crs, 119° Outbnd, 299° Inbnd, 2400' within 10 miles of LOM. Beyond 10 miles not authorized.
Minimum altitude over facility on final approach crs, 2000'.
Crs and distance, facility to airport, 299°—4.5 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.5 miles after passing LOM, climb to 3000' on NW crs of the BC LFR within 20 miles or, when directed by ATC, (1) climb to 3000' on R-227 BFL VOR within 15 miles; (2) climb to 3000' on SW crs BC LFR within 15 miles.
*All turns S side of crs, high terrain N.

City, Bakersfield; State, Calif.; Airport Name, Meadows Field; Elev., 488'; Fac. Class., LOM; Ident., BF; Procedure No. 1, Amdt. 3; Eff. Date, 30 May 64; Sup. Amdt. No. 2; Dated, 2 May 64

Dallas VOR	LOM	Direct	2000	T-dn	300-1	300-1	200-½
Ross Ave. Int	LOM	Direct	2000	C-dn	400-1	500-1	500-1½
Lakeside Int	LOM	Direct	2000	S-dn-13	400-1	400-1	400-1
Dallas RBn	LOM	Direct	2000	A-dn	800-2	800-2	800-2

Radar vectoring authorized in accordance with approved patterns.
Procedure turn N side of crs, 307° Outbnd, 127° Inbnd, 2000' within 10 miles. Nonstandard due to ATC.
Minimum altitude over facility on final approach, 1400'.
Crs and distance, facility to airport, 127°—4.1 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.1 miles after passing LOM, climb to 2100' on crs of 127° within 20 miles or, when directed by ATC, turn left, proceed to DAL VOR, climbing to 2000'.
CAUTION: Procedure turn maneuvering must be completed N of final approach crs 127°-307°. Standard clearance not provided over 1221' radio tower 5.6 miles WNW of LOM, 695' tank 1.7 miles SE of Runway 31.
MSA: 000°-090°—2100'; 090°-180°—3400'; 180°-270°—2700'; 270°-360°—2200'.

City, Dallas; State, Tex.; Airport Name, Love Field; Elev., 485'; Fac. Class., LOM; Ident., DA; Procedure No. 1, Amdt. 5; Eff. Date, 30 May 64; Sup. Amdt. No. 4; Dated, 27 Apr. 63

ADF STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
DAL VOR	DAL RBn	Direct	2800	T-dn	300-1	300-1	200-½
Stack Int	DAL RBn (final)	Direct	#1100	C-dn	600-1	600-1	600-1½
				A-dn	800-2	800-2	800-2
				If aircraft equipped with operating VOR receiver and Stack Int or 2.1-mile radar fix received, minimum becomes:			
				C-dn	400-1	500-1	500-1½

Procedure turn E side of crs, 178° Outbnd, 358° Inbnd, 2800′ within 10 miles. Beyond 10 miles not authorized.
Minimum altitude over facility on final approach crs, 1100′; #over Stack Int, 1500′.
Crs and distance, facility to airport, 358°—1.4 miles; from Stack Int to Dallas RBn, 358° —2.1 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 1.4 miles after passing DAL RBn, climb to 2000′ on crs 358° within 20 miles.
CAUTION: 695′ tank 1.7 miles SE of airport.
Other change: Deletes S-dn-36 authorization.
#Descent to 1100′ authorized after passing Stack Int or 2.1-mile radar fix. If Stack Int or 2.1-mile radar fix not received, descent below 1500′ not authorized.
MSA: 000°-090°—2100′; 090°-180°—2000′; 180°-270°—3400′; 270°-360°—2200′.

City, Dallas; State, Tex.; Airport Name, Love Field; Elev., 485′; Fac. Class., BH; Ident., DAL; Procedure No. 2, Amdt. 5; Eff. Date, 30 May 64; Sup. Amdt. No. 4 Dated, 24 Aug. 63

DAL-VOR	DDA RBn	Direct	2000	T-dn	300-1	300-1	200-½
ADS-VOR	DDA RBn	Direct	2000	C-dn	600-1	600-1	600-1½
Trinity Fork Int	DDA RBn	Direct	2100	A-dn	800-2	800-2	800-2
Fair Park Int	DDA RBn	Direct	2100	If aircraft equipped with operating ADF and VOR receivers and Ross Ave. VHF/INT received, minimum becomes:			
Fair Park Int	Ross Ave. Int (final)	Direct	1600				
Ross Ave. Int	DDA RBn (final)	Direct	1100	C-dn	400-1	500-1	500-1½

Radar vectoring authorized in accordance with approved patterns.
Procedure turn S side of crs, 127° Outbnd, 307° Inbnd, 2100′ within 10 miles.
Minimum altitude over facility on final approach crs, 1600′. If Ross Ave. Int received, cross DDA RBn at 1100′.
Crs and distance, facility to airport, 307°—1.5 miles; Ross Ave. Int to airport, 307°—3.2 miles.
No glide slope.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 1.5 miles after passing Tank RBn, climb to 2200′ on crs 307° within 20 miles.
CAUTION: 1095′ building 4.2 miles SSE, 695′ water tank 1.5 miles SE of airport.
MSA: 000°-090°—2000′; 090°-180°—2100′; 180°-270°—3400′; 270°-360°—2300′.

City, Dallas; State, Tex.; Airport Name, Love Field; Elev., 485′; Fac. Class., MHW; Ident., DDA; Procedure No. 3, Amdt. 2; Eff. Date, 30 May 64; Sup. Amdt. No. 1; Dated, 13 Apr. 63

Harcum VOR (HCM)	FAF RBn	Direct	1600	T-dn	300-1	300-1	NA
Surry Int	FAF RBn	Direct	1600	C-dn	500-1	500-1	NA
Harcum VOR (HCM)	Jamestown Int	Direct	1600	A-dn	800-2	800-2	NA
Jamestown Int	FAF RBn (final)	Direct	400	*The following minimum applies if Jamestown Int received:			
				C-dn	400-1	500-1	NA

Radar vectoring authorized in accordance with approved patterns.
Procedure turn N side of crs 320° Outbnd, 140° Inbnd, 1600′ within 10 miles. Beyond 10 miles not authorized.
Minimum altitude over facility on final approach crs 500′; *If Jamestown Int received 400′.
Crs and distance, Jamestown Int to FAF RBn 140°—5.5 miles.
Crs and distance, facility to airport, 150°—0.5 mile.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.0 mile after passing FAF RBn, make climbing left turn to 1600′. Intercept R-322 ORF VOR, proceed to Williamsburg Int (HPW R-094). Hold SE, 1-minute right turns. Contact Norfolk Approach Control.
NOTES: 1. Authorized for military use only—except by prior arrangement. 2. All turns to be made on the N side of the crs for traffic separation.
Jamestown Int: Int HCM R-185 and 320° bearing from FAF RBn.
MSA: 000°-090°—1300′; 090°-180°—2100′; 180°-270°—1800′; 270°-360°—1400′.

City, Fort Eustis; State, Va.; Airport Name, Felker AAF; Elev., 10′; Fac. Class., MH; Ident., FAF; Procedure No. 1, Amdt. Orig.; Eff. Date, 30 May 64

Sugar Loaf Int	Gaithersburg RBn	Direct	2300	T-dn	300-1	300-1	NA
Dayton Int	Gaithersburg RBn	Direct	2300	C-dn	1000-1	1000-1	NA
Lisbon Int	Gaithersburg RBn	Direct	2300	S-dn	NA	NA	NA
Ashburn Int	Gaithersburg RBn	Direct	2300	A-dn	NA	NA	NA
				If *Kane Int received, the following minimum applies:			
				C-dn	500-1	500-1	NA

Radar vectoring authorized in accordance with approved patterns (BAL APC).
Procedure turn E side of crs 015° Outbnd, 195° Inbnd, 2300′ within 10 miles. Beyond 10 miles not authorized.
Minimum altitude over facility on final approach crs 1500′.
Crs and distance, Kane Int to RBn, 195°—5.7 miles: RBn to runway .16 mile.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.0 mile after passing GAI RBn, make a left climbing turn to 2300′, return to the GAI RBn, hold NE 1-minute left turns, 195° bearing Inbnd.
CAUTION: 740′ high-tension lines alined E and W 1 mile N of airport. 665′ water tank 1.7 miles SW of airport.
*Kane Int: Int 195° bearing GAI RBn and R-137 FDK VOR.
MSA: 000°-090°—2100′; 090°-180°—2100′; 180°-270°—1800′; 270°-360°—2400′.
HOURS OF OPERATION: 7:00 a.m. to 8:00 p.m.

City, Gaithersburg; State, Md.; Airport Name, Montgomery County; Elev., 540′; Fac. Class., MHW; Ident., GAI; Procedure No. 1, Amdt. Orig.; Eff. Date, 30 May 64

ADF STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
Johnson City Int	JCY RBn	Direct	3500	T-dn	300–1	300–1	200–½
Fredericksburg Int	JCY RBn	Direct	3500	C-dn	500–1	600–1	600–1½
				A-dn	NA	NA	NA

Procedure turn E side of crs, 166° Outbnd, 346° Inbnd, 3000′ within 10 miles.
Minimum altitude over facility on final approach crs, 2500′.
Crs and distance, facility to airport, 346°—2.0 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 2.0 miles after passing JCY RBn, turn right, climb to 3000′ on 350° crs from JCY RBn. Then proceed to SAT-VOR R-353 via the Austin, Tex., VOR R-260 thence to Johnson City Int via SAT-VOR R-353, maintain 3000′, hold N of Johnson City Int, in 1-minute right-hand pattern. Contact ATC for further clearance.
NOTES: Air carrier use not authorized. No weather at airport. Austin altimeter setting will be used for this approach.
CAUTION: Procedure not wholly within controlled airspace.
Other change: Deletes straight-in minimum.

City, Johnson City; State, Tex.; Airport Name, Johnson City; Elev., 1512′; Fac. Class., MH; Ident., JCY; Procedure No. 1, Amdt. 2; Eff. Date, 30 May 64; Sup Amdt. No. 1; Dated, 10 Nov. 62

New Orleans VOR	MSY-RBn	Direct	1500	T-dn	300–1	300–1	200–½
				C-dn	400–1	500–1	500–1½
				A-dn	800–2	800–2	800–2

Radar vectoring authorized in accordance with approved procedure.
Procedure turn N side of crs, 087° Outbnd, 267° Inbnd, 2000′ within 10 miles.
Minimum altitude over facility on final approach crs, 1000′.
Crs and distance, facility to airport, 267°—2.7 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 2.7 miles after passing MSY RBn, climb to 1500′ to LPX RBn or LOM (MS).
CAUTION: 409′ WWL radio antenna located 2.3 miles N of airport. 978′ tower 15 miles E of airport.

City, New Orleans; State, La.; Airport Name, New Orleans International; Elev., 3′; Fac. Class., SABH; Ident., MSY; Procedure No. 2, Amdt. 1; Eff. Date, 30 May 64; Sup. Amdt. No. Orig.; Dated, 17 Nov. 62

Lisbon Int	OGS RBn	Direct	2000	T-dn	300–1	300–1	NA
				C-dn	700–1	700–1	NA
				A-dn*	NA	NA	NA

Procedure turn S side of crs, 090° Outbnd, 270° Inbnd, 2000′ within 10 miles.
Minimum altitude over facility on final approach crs, 1000′.
Crs and distance, facility to airport, 270°—2.2 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 2.2 miles after passing OGS RBn, make a climbing left turn to 2000′ direct to OGS RBn. Hold E of OGS RBn, 270° Inbnd, left turns, 1-minute.
NOTES: 1. Facility must be monitored aurally during approach. 2. Final approach from a holding pattern not authorized. Procedure turn required.
*Alternate weather minimums of 800–2 authorized for those who have approved arrangement for weather service at the airport.
MSA: 000°–090°—2000′; 090°–180°—2500′; 180°–270°—2100′; 270°–360°—1800′.

City, Ogdensburg; State, N.Y.; Airport Name, Ogdensburg Municipal; Elev., 293′; Fac. Class., MHW; Ident., OGS; Procedure No. 1, Amdt. 1; Eff. Date, 30 May 64; Sup. Amdt. No. Orig.; Dated, 9 May 64

SHR VOR	SHR RBn	Direct	6200	T-dn	400–1	400–1	400–1
Ucross FM	Sheridan FM	Direct	5900	C-dn	800–1	800–1	800–1½
Sheridan FM	Sheridan RBn (final)#	Direct	5200	A-dn	800–2	800–2	800–2
Ucross FM	Sheridan RBn	Direct	6200				

Procedure turn E side of crs, 117° Outbnd, 297° Inbnd, 6200′ within 10 miles.
Minimum altitude over facility on final approach crs, 5200′.
Crs and distance, facility to airport, 297°—1.4 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 1.4 miles after passing SHR RBn, climb to 8000′ on bearing 297° from SHR RBn Outbnd within 20 miles or, when directed by ATC, climb to 8000′ on the SHR VOR R-295 within 20 miles.
Major change: Deletes restrictive note requiring ADF and FM equipment.
MSA: 000°–090°—6800′; 090°–180°—14,500′; 180°–270°—15,200′; 270°–360°—10,600′.
#If SHR FM not received, procedure turn from SHR RBn at 6200′ required.

City, Sheridan; State, Wyo.; Airport Name, Sheridan County; Elev., 4021′; Fac. Class., BH; Ident., SHR; Procedure No. 1, Amdt. 4; Eff. Date, 30 May 64; Sup. Amdt. No. 3; Dated, 11 Apr. 64

3. By amending the following very high frequency omnirange (VOR) procedures prescribed in § 97.11(c) to read:

VOR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
Harcum VOR (HCM)	Lee Hall Int*	Direct	1600	T-dn	300-1	300-1	NA
Surry Int	FAF VOR	Direct	1600	C-dn	500-1	500-1	NA
				S-dn-13	500-1	500-1	NA
				A-dn	800-2	800-2	NA
				The following minimums apply if Lee Hall Int* received:			
				C-dn	400-1	500-1	NA
				S-dn	400-1	400-1	NA

Radar vectoring authorized in accordance with approved patterns.
Procedure turn N side of crs, 322° Outbnd, 142° Inbnd, 1600' within 10 miles. Beyond 10 miles not authorized.
Minimum altitude over facility on final approach crs 500'; if Lee Hall Int used 400'.
Crs and distance, Lee Hall Int to FAF VOR, 142°—6.2 miles. Breakoff point to runway 135°—0.9 mile.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.0 mile after passing FAF VOR, make climbing left turn to 1600'. Intercept R-322 ORF VOR, proceed to Williamsburg Int (HPW R-094), hold SE, 1-minute right turns. Contact Norfolk Approach Control.
NOTE: Authorized for military use only, except by prior arrangement.
*Lee Hall Int: Int HCM VOR R-185 and FAF VOR R-322.
MSA: 000°-090°—1300'; 090°-180°—2100'; 180°-270°—1800'; 270°-360°—1400'.

City, Fort Eustis; State, Va.; Airport Name, Felker AAF; Elev., 10'; Fac. Class., VOR; Ident., FAF; Procedure No. 1, Amdt. Orig.; Eff. Date, 30 May 64

4. By amending the following terminal very high frequency omnirange (TerVOR) procedures prescribed in § 97.13 to read:

TERMINAL VOR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
Bowie Int	BAL VOR	Direct	2000	T-dn	300-1	300-1	200-½
				C-dn	800-1	800-1	800-1½
				S-dn-10	800-1	800-1	800-1
				A-dn	800-2	800-2	800-2
				*If aircraft equipped with ADF or marker receiver and LOM received, the following minimums apply:			
				C-dn	500-1	500-1	500-1½
				S-dn-10	400-1	400-1	400-1

Radar vectoring authorized in accordance with approved patterns.
Procedure turn S side of crs, 284° Outbnd, 104° Inbnd, 2000' within 10 miles. Beyond 10 miles not authorized.
Minimum altitude over facility on final approach crs 900',* maintain 900' until passing BAL LOM.
Crs and distance, breakoff point to approach end of runway, 102°—0.9 mile.
Course and distance, LOM to Airport, 102°—3.8 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.0 mile after passing BAL VOR, climb to 2000' on R-105 BAL VOR, proceed to Bodkin Int, hold E 1-minute left turns.
CAUTION: 340' tower 2.2 miles S of airport.
MSA: 000°-090°—2000'; 090°-180°—1900'; 180°-270°—2000'; 270°-360°—2100'.

City, Baltimore; State, Md.; Airport Name, Friendship International; Elev., 146'; Fac. Class., BVORTAC; Ident., BAL; Procedure No. TerVOR-10, Amdt. 5; Eff. Date, 30 May 64; Sup. Amdt. No. 4; Dated, 9 May 64

Lakeside Int	ADS VOR	Direct	2000	T-dn	300-1	300-1	200-½
DAL VOR	ADS VOR	Direct	2000	C-dn	400-1	500-1	500-1½
Trinity Fork Int	ADS VOR	Direct	2100	A-dn	800-2	800-2	800-2
DeSoto Int	ADS VOR	Direct	2800				

Radar vectoring authorized in accordance with approved patterns.
Procedure turn E side crs, 358° Outbnd, 178° Inbnd, 2000' within 10 miles.
Minimum altitude over facility on final approach crs, 2000';* over Highline Int, 1100'.
Crs and distance facility to airport 178°—7.1 miles; Highline Int to airport, 178°—2.3 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 7.1 miles after passing ADS VOR, turn left, proceed direct to DAL VOR, climbing to 2000'.
NOTE: Dual operating VOR equipment or radar service required to execute this procedure.
*Descent to 1100' authorized after passing ADS VOR.
Delete S-dn-18 authorization.
MSA: 000°-090°—2100'; 090°-180°—2000'; 180°-270°—3400'; 270°-360°—2200'.

City, Dallas; State, Tex.; Airport Name, Love Field; Elev., 485'; Fac. Class., L-BVOR; Ident., ADS; Procedure No. TerVOR-18, Amdt. 9; Eff. Date, 30 May 64; Sup. Amdt. No. 8; Dated, 14 Dec. 63

5. By amending the following instrument landing system procedures prescribed in § 97.17 to read:

ILS STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
BC LFR	LOM	Direct	2400	T-dn	300–1	300–1	200–½
BFL VOR	LOM	Direct	2400	C-dn	500–1	500–1	500–1½
Maricopa Int	LOM	Direct	3000	S-dn-30R#	200–½	200–½	200–½
River Int	LOM	Direct	2400	A-dn	600–2	600–2	600–2
Arvin Int	LOM (final)	Direct	**2000				

Procedure turn S* side SE crs, 119° Outbnd, 299° Inbnd, 2400' within 10 miles of OM. Beyond 10 miles not authorized.
Minimum altitude at glide slope Int Inbnd, 2000'. **Descent to 1985' at LOM authorized after glide slope intercept on localizer crs.
Altitude of glide slope and distance to approach end of runway at OM, 1985'—4.5 miles; at MM, 713'—0.6 mile.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, climb to 3000' on NW crs ILS within 20 miles or, when directed by ATC, (1) climb to 3000' on R–227 BFL within 15 miles; (2) climb to 3000' on SW crs BC LFR within 15 miles; (3) climb to 3000' on NW crs BC LFR within 20 miles.
*All turns S side of crs, high terrain N.
#400–¾ required with glide slope inoperative.

City, Bakersfield; State, Calif.; Airport Name, Meadows Field; Elev., 488'; Fac. Class., ILS; Ident., I–BFL; Procedure No. ILS–30R, Amdt. 14; Eff. Date, 30 May 64; Sup. Amdt. No. 13; Dated, 2 May 64

6. By amending the following radar procedures prescribed in § 97.19 to read:

RADAR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If a radar instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below. Positive identification must be established with the radar controller. From initial contact with radar to final authorized landing minimums, the instructions of the radar controller are mandatory except when (A) visual contact is established on final approach at or before descent to the authorized landing minimums, or (B) at pilot's discretion if it appears desirable to discontinue the approach, except when the radar controller may direct otherwise prior to final approach, a missed approach shall be executed as provided below when (A) communication on final approach is lost for more than 5 seconds during a precision approach, or for more than 30 seconds during a surveillance approach; (B) directed by radar controller; (C) visual contact is not established upon descent to authorized landing minimums; or (D) if landing is not accomplished.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
000*	360*	20 miles	2000	Surveillance approach			
				T-dn**	300–1	300–1	200–½
				C-dn	400–1	500–1	500–1½
				S-dn-13, 31#	400–1	400–1	400–1
				A-dn	800–2	800–2	800–2
				Precision approach			
				T-dn**	300–1	300–1	200–½
				S-dn-13###	200–½	200–½	200–½
				A-dn	600–2	600–2	600–2

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished Runways 13 and 31: Climb to 2000' on runway heading within 10 miles or, when directed by ATC, Runway 13: turn left, climb to 2000' and proceed to DAL VOR; Runway 31: turn right, climb to 2000' and proceed to DAL VOR.
CAUTION: 695' tank 1.7 miles SE of Runway 31. 1044' building 3.9 miles SE of Runway 31 on centerline.
Delete S-dn-18 and 36 authorization.
*Radar control will provide 1000' vertical clearance within a 3-mile radius from radio TV towers 1108' 20 miles N, 2349' 16 miles SSW, 1230' 10 miles NNW of airport, buildings 1095', 4.2 miles SSE.
#Maintain at least 1400' until 3.5 miles from the approach end of Runway 31 and 1000' until 1.4 miles from the approach end of Runway 31.
##Maintain at least 1200' until 4 miles from end of Runway 36.
###Runway Visual Range 2600' also authorized for landing on Runway 13; provided that all components of the PAR, high-intensity runway lights, approach lights, condenser-discharge flashers, outer compass locator and all related airborne equipment are in satisfactory operating condition. Descent below 685' shall not be made unless visual contact with approach lights has been established or the aircraft is clear of clouds.
**Runway Visual Range 2600' also authorized for takeoff on Runway 13 in lieu of 200–½ when 200–½ is authorized; providing high-intensity runway lights are operational.

City, Dallas; State, Tex.; Airport Name, Love Field; Elev., 485'; Fac. Class. and Ident., Dallas Radar; Procedure No. 1, Amdt. 9; Eff. Date, 30 May 64; Sup. Amdt. No. 8; Dated, 13 Apr. 63

These procedures shall become effective on the dates specified therein.

These amendments are made under the authority of sections 307(c), 313(a), and 601 of the Federal Aviation Act of 1958 (49 U.S.C. 1348(c), 1354(a), 1421; 72 Stat. 749, 752, 775).

Issued in Washington, D.C., on April 27, 1964.

G. S. MOORE,
Director, Flight Standards Service.

[F.R. Doc. 64–4379; Filed, May 22, 1964; 8:45 a.m.]

Chapter III—Federal Aviation Agency

SUBCHAPTER C—AIRCRAFT REGULATIONS

[Reg. Docket No. 4004; Amdt. 733]

PART 507—AIRWORTHINESS DIRECTIVES

Boeing Models 707 and 720 Series Aircraft

A proposal to amend Part 507 of the regulations of the Administrator to include an airworthiness directive requiring modification of the thrust reverser directional control valve cam and rocker arm assemblies in the throttle control system on Boeing Models 707 and 720 Series aircraft equipped with Pratt & Whitney JT3D turbo fan engines was published in 29 F.R. 2561.

Interested persons have been afforded an opportunity to participate in the making of the amendment. No objections were received, however there were comments suggesting that reference be made to the Boeing Maintenance Manual for rerigging instructions and that paragraphs (b)(3) (i) and (ii) be reworded. The AD has been revised to refer to the maintenance manual. The suggested rewording of (b)(3) (i) and (ii) was not adopted since it was not considered to clearly state the intent of the AD.

In consideration of the foregoing, and pursuant to the authority delegated to me by the Administrator (25 F.R. 6489), § 597.10(a) of Part 507 (14 CFR Part 507), is hereby amended by adding the following new airworthiness directive:

BOEING. Applies to all Models 707 and 720 Series aircraft equipped with Pratt & Whitney JT3D-1, -3, or -3B engines.

Compliance required as indicated.

To prevent inadvertent inflight reversals caused by snap action closing of the throttles to the idle position accomplish the following:

(a) Within 500 hours' time in service after the effective date of this AD unless already accomplished, rerig the throttle control system in accordance with the Boeing Maintenance Manual dated April 1964, or Boeing Service Letter 6-7161-4-6112 dated September 30, 1963.

(b) Within 2,500 hours' time in service after the effective date of this AD, unless already accomplished, accomplish the following:

(1) Inspect the strut mounted bracket in accordance with Service Bulletin No. 1659 (R-1) to determine what bracket assembly part number is installed on each airplane reverser installation.

(2) Modify the cam rocker arm, P/N 69-10814, in accordance with Boeing Service Bulletin No. 1931 or an FAA approved equivalent. This modification shall be accomplished prior to or concurrent with the thrust reverser directional control valve cam modification required in paragraph (b)(3). Installation of a modified cam with an unmodified cam rocker arm is prohibited because of operational incompatibility and subsequent possible interference.

(3) Modify the thrust reverser directional control valve cam assembly, P/N's 65-18225-1, -2, -3 or 65-27438-3, in accordance with Boeing Service Bulletin No. 1931 or an FAA approved equivalent. Models 707 and 720 fan engine airplanes may have any one of or a combination of the thrust reverser directional control valve cam assembly part numbers listed above. Interchangeability of these directional control valve cam assemblies with strut mounted brackets and fan reverser followup cams are as follows:

(i) Cam assemblies P/N's 65-18225-2, -3, and 65-27438-3, all reworked per Service Bulletin No. 1931 must be used with bracket assembly P/N's 65-11882, -2, or -4 or P/N 65-11882 reworked per Service Bulletin No. 1659(R-1).

(ii) Cam assembly P/N 65-18225-1 reworked per Service Bulletin No. 1931 must be used with bracket P/N's 65-11882-2, -4 or 65-11882 reworked per Service Bulletin No. 1659(R-1).

(iii) Cam assemblies P/N 65-27438-3 reworked per Service Bulletin 1931 shall be used with fan reverser followup cams P/N's 65-27437-1 or 66-16560-1.

(iv) Cam assemblies P/N's 65-18225-1, -2 or -3 reworked per Service Bulletin 1931 shall be used with fan reverser followup cam P/N's 65-11826-3 or -7

(c) Approval of any equivalent means shall be processed through the Aircraft Engineering Division, FAA Western Region, Los Angeles, California.

(Boeing Service Bulletins Nos. 1659(R-1) and 1931 cover this subject.)

This amendment shall become effective June 26, 1964.

(Secs. 313(a), 601, 603; 72 Stat. 752, 775, 776; 49 U.S.C. 1354(a), 1421, 1423)

Issued in Washington, D.C., on May 18, 1964.

W. LLOYD LANE,
Acting Director,
Flight Standards Service.

[F.R. Doc. 64-5152; Filed, May 22, 1964; 8:45 a.m.]

[Reg. Doc. No. 3067; Amdt. 735]

PART 507—AIRWORTHINESS DIRECTIVES

Fairchild Model F-27 Series Aircraft

A proposal to amend Part 507 of the Regulations of the Administrator to supersede Amendment 284, 26 F.R. 4051, AD 61-10-3, with a new directive to permit the alleviation of repetitive inspection in certain instances and to require that operators compute their compliance in terms of landings rather than hours' time in service on Fairchild Model F-27 aircraft was published in 29 F.R. 1481.

Interested persons have been afforded an opportunity to participate in the making of the amendment. One comment was received which recommended that the estimation of the number of landings be permitted on a continuing basis instead of only prior to the effective date of the AD. This is considered a reasonable request and the AD is revised accordingly.

In consideration of the foregoing, and pursuant to the authority delegated to me by the Administrator (25 F.R. 6489), § 507.10(a) of Part 507 (14 CFR Part 507), is hereby amended by adding the following new airworthiness directive:

FAIRCHILD. Applies to all Model F-27 Series aircraft with Dowty main landing gear outer cylinders P/N's 9010Y3, 9017Y1, 200020.609, 2.00021.241 200021.276, 200042.302, 2.00042.303, 2.00042.601, and 2.00042.618.

Compliance required as indicated.

Due to failures of main landing gear outer cylinder torque link attach lugs, to which the upper torque link, Dowty P/N C9027Y3 is attached, the following measures are required:

(a) Outer cylinders which have accumulated 8,000 or more landings as of the effective date of this AD, but have not been modified in accordance with either Fairchild Service Bulletin No. 32-41A dated April 5, 1961, or Dowty Service Bulletins No. 32-15 dated October 1961, or No. 32-11 issued August 1961, revised December 1962, or equivalent approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, must be inspected as follows:

(1) Conduct a daily visual inspection for cracks in the vertical radii on the inboard and outboard sides of the main cylinder lug.

(2) Inspect the area specified in (a)(1) using dye penetrant method or FAA approved equivalent inspection within the next 50 landings after the effective date of this AD, unless already accomplished within the last 250 landings, and every 300 landings after such inspection.

(3) If cracks are found the following shall be accomplished:

(i) A crack that can be removed by reworking the outer cylinder in accordance with Fairchild Service Bulletin No. 32-41A dated April 5, 1961, or Dowty Service Bulletins No. 32-15 dated October 1961, or No. 32-11 issued August 1961, revised December 1962, or equivalent approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, must be removed before further flight.

(ii) If the crack cannot be removed as specified in (a)(3)(i), that cylinder must be replaced before further flight.

(b) Outer cylinders modified in accordance with Fairchild Service Bulletin No. 32-41A dated April 5, 1961, or equivalent approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, must be inspected as follows:

(1) Conduct a daily visual inspection for cracks in the vertical radii on the inboard and outboard sides of the main cylinder lug.

(2) Inspect the area specified in (b)(1) using dye penetrant method or FAA approved equivalent inspection within the next 50 landings after the effective date of this AD unless already accomplished within the last 250 landings, and every 300 landings after such inspection.

(3) If cracks are found the following shall be accomplished:

(i) A crack that can be removed by reworking the outer cylinder in accordance with Dowty Service Bulletin No. 32-15 dated October 1961, or equivalent approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, must be removed before further flight.

(ii) If the crack cannot be removed as specified in (b)(3)(i), that cylinder must be replaced before further flight.

(c) Outer cylinders modified in accordance with Dowty Service Bulletin No. 32-15 dated October 1961, or equivalent approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, must be inspected as follows:

(1) Conduct a daily visual inspection for cracks in the vertical radii on the inboard and outboard sides of the main cylinder lug.

(2) Inspect the area specified in (c)(1) using dye penetrant method or FAA approved equivalent inspection within the next 50 landings after the effective date of this AD unless already accomplished within the last 250 landings, and every 300 landings after such inspection.

(3) If cracks are found, that cylinder must be replaced before further flight.

(d) Outer cylinders modified after the accumulation of 7,000 landings, in accordance with Dowty Service Bulletin No. 32-11 issued August 1961, revised December 1962,

or equivalent approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, must be inspected as follows:

(1) Conduct a daily visual inspection for cracks in the vertical radii on the inboard and outboard sides of the main cylinder lug.

(2) Inspect the area specified in (d)(1) using dye penetrant method or FAA approved equivalent inspection within the next 50 landings after the effective date of this AD unless already accomplished within the last 650 landings, and every 700 landings after such inspection.

(3) If cracks are found, that cylinder must be replaced before further flight.

(e) Outer cylinders modified prior to the accumulation of 7,000 landings in accordance with Dowty Service Bulletin No. 32–11 issued August 1961, revised December 1962, or equivalent approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, are not required to be inspected under this AD.

(f) Where past records of landings have not been maintained or are unavailable, the number of landings prior to the effective date of this AD shall be estimated by substituting two (2) landings for each hour of time in service. Where the operator does not desire to keep a record of landings, the number of landings shall be estimated by substituting two (2) landings for each hour of time in service.

(g) Compliance inspection times and effectivity paragraphs, specified in the service bulletins discussed herein, must be disregarded.

(h) Upon request of the operator, an FAA maintenance inspector, subject to prior approval of the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, may adjust the repetitive inspection intervals specified in this AD to permit compliance at an established inspection period of the operator if the request contains substantiating data to justify the increase for such operator.

This supersedes Amendment 284, 26 F.R. 4051, AD 61–10–3.

This amendment shall become effective June 26, 1964.

(Secs. 313(a), 601, 603; 72 Stat. 752, 775, 776; 49 U.S.C. 1354(a), 1421, 1423)

Issued in Washington, D.C., on May 18, 1964.

W. LLOYD LANE,
Director,
Flight Standards Service.

[F.R. Doc. 64–5153; Filed, May 22, 1964; 8:45 a.m.]

[Reg. Docket No. 5075; Amdt. 734]

PART 507—AIRWORTHINESS DIRECTIVES

Pratt & Whitney Aircraft JT4A Series Turbojet Engines

There has been an instance of a Pratt & Whitney Aircraft JT4A–9 turbojet engine failure attributable to steel low compressor rotor blade shift. To correct this condition, an airworthiness directive is being issued to require inspection of the front compressor rotor assembly and rotor blades and correction of displaced blades.

As a situation exists which demands immediate adoption of this regulation, it is found that notice and public procedure hereon are impracticable and good cause exists for making this amendment effective upon publication in the FEDERAL REGISTER.

In consideration of the foregoing, and pursuant to the authority delegated to me by the Administrator (25 F.R. 6489), § 507.10(a) of Part 507 (14 CFR Part 507), is hereby amended by adding the following new airworthiness directive:

PRATT & WHITNEY: Applies to all Models JT4A–3, –9 and –11 turbojet engines. Compliance required as indicated.

To preclude front compressor failure as the result of front compressor rotor blade shift in front compressor rotor assemblies incorporating blade locks P/N's 429601, 310293, 429602, 310294, 429603, 310295, 429604, and 310296, accomplish the following:

(a) Front compressor rotor assemblies with 3,000 or more hours' time in service since last overhaul, which have not previously been inspected by the procedure described in (d) shall be inspected in accordance with (d) within the next 100 hours' time in service after the effective date of this AD and within every 500 hours' time in service thereafter.

(b) Front compressor rotor assemblies with less than 3,000 hours' time in service since last overhaul, which have not previously been inspected by the procedure described in (d) shall be inspected in accordance with (d) prior to the accumulation of 3,100 hours' time in service since last overhaul and within every 500 hours' time in service thereafter.

(c) Front compressor rotor assemblies previously inspected by the procedure described in (d) shall be reinspected in accordance with (d) within every 500 hours' time in service from the last inspection.

(d) By means of a boroscope or FAA-approved equivalent viewing instrument inserted through the existing inspection ports in the front compressor cases, inspect all front compressor blades in the fifth through eighth stages for blade axial displacement.

(1) If forward displacement is between 0.045 and 0.080 inch, or if aft displacement is between 0.040 and 0.080 inch, reinspect within every 125 hours' time in service thereafter all blades in the stage or stages exhibiting blade displacement. If the forward or aft displacement has progressed beyond the limits established by this subparagraph comply with either subparagraph (2) or (3) whichever is applicable.

(2) If forward or aft displacement is between 0.080 and 0.120 inch, within 25 hours' time in service remove the engine from service until the displaced blade condition is corrected.

(3) If forward or aft displacement is in excess of 0.120 inch, before further flight remove the engine from service until the displaced blade condition is corrected.

(e) Upon request of the operator, an FAA maintenance inspector, subject to prior approval of the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, may adjust the repetitive inspection intervals specified in the AD to permit compliance at an established inspection period of the operator if the request contains substantiating data to justify the increase for such operator.

(Pratt & Whitney Aircraft telegraphic message dated March 4, 1964, to all operators of JT4A–3, –9 and –11 turbojet engines covers the same subject.)

This amendment shall become effective May 26, 1964.

(Secs. 313(a), 401, 403; 72 Stat. 752, 775, 776; 49 U.S.C. 1354(a), 1421, 1423)

Issued in Washington, D.C., on May 18, 1964.

W. LLOYD LANE,
Acting Director,
Flight Standards Service.

[F.R. Doc. 64–5154; Filed, May 22, 1964; 8:45 a.m.]

Title 21—FOOD AND DRUGS

Chapter I—Food and Drug Administration, Department of Health, Education, and Welfare

SUBCHAPTER B—FOOD AND FOOD PRODUCTS

PART 29—FRUIT BUTTERS, FRUIT JELLIES, FRUIT PRESERVES, AND RELATED PRODUCTS; DEFINITIONS AND STANDARDS OF IDENTITY

Fruit Jellies and Preserves; Confirmation of Effective Date; Optional Use of Specified Antifoaming Agents

Pursuant to the provisions of the Federal Food, Drug, and Cosmetic Act (secs. 401, 701, 52 Stat. 1046, 1055, as amended 70 Stat. 919; 72 Stat. 948; 21 U.S.C. 341, 371) and in accordance with the authority delegated to the Commissioner of Food and Drugs by the Secretary of Health, Education, and Welfare (21 CFR 2.90; 29 F.R. 471) notice is given that no objections were filed to the order published in the FEDERAL REGISTER of April 4, 1964 (29 F.R. 4803), amending the standards for fruit jelly and preserves to permit the optional use of specified antifoaming agents. Accordingly, the amendments promulgated by that order will become effective June 3, 1964.

(Secs. 401, 701, 52 Stat. 1046, 1055, as amended 70 Stat. 919; 72 Stat. 948; 21 U.S.C. 341, 371)

Dated: May 19, 1964.

GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F.R. Doc. 64–5173; Filed, May 22, 1964; 8:47 a.m.]

PART 121—FOOD ADDITIVES

Subpart F—Food Additives Resulting From Contact With Containers or Equipment and Food Additives Otherwise Affecting Food

CELLOPHANE

The Commissioner of Food and Drugs, having evaluated the data submitted in a petition (FAP 1126) filed by Celanese Corporation of America, 522 Fifth Avenue, New York 36, New York, and other relevant material, has concluded that the food additive regulations (21 CFR 121.2507) should be amended to provide for the use of 1,3-butanediol as a component of food-packaging cellophane. Therefore, pursuant to the provisions of the Federal Food, Drug, and Cosmetic Act (sec. 409(c)(1), 72 Stat. 1786; 21 U.S.C. 348(c)(1)), and under the authority delegated to the Commissioner by the Secretary of Health, Education, and Welfare (21 CFR 2.90; 29 F.R. 471), § 121.2507 *Cellophane* is amended by inserting alphabetically in the list of substances in paragraph (c) the new item "1,3-Butanediol."

Any person who will be adversely affected by the foregoing order may at any time within 30 days from the date of its publication in the FEDERAL REGISTER file with the Hearing Clerk, Department of Health, Education, and Welfare, Room

5440, 330 Independence Avenue SW., Washington 25, D.C., written objections thereto. Objections shall show wherein the person filing will be adversely affected by the order and specify with particularity the provisions of the order deemed objectionable and the grounds for the objections. If a hearing is requested, the objections must state the issues for the hearing. A hearing will be granted if the objections are supported by grounds legally sufficient to justify the relief sought. Objections may be accompanied by a memorandum or brief in support thereof. All documents shall be filed in quintuplicate.

Effective date. This order shall be effective on the date of its publication in the FEDERAL REGISTER.

(Sec. 409(c)(1), 72 Stat. 1786; 21 U.S.C. 348(c)(1))

Dated: May 19, 1964.

GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F.R. Doc. 64-5174; Filed, May 22, 1964; 8:47 a.m.]

PART 121—FOOD ADDITIVES

Subpart F—Food Additives Resulting From Contact With Containers or Equipment and Food Additives Otherwise Affecting Food

SLIMICIDES

The Commissioner of Food and Drugs, having evaluated the data submitted in a petition (FAP 1300) filed by Betz Laboratories, Inc., Gillingham and Worth Streets, Philadelphia 24, Pennsylvania, and other relevant material, has concluded that the food additive regulations (21 CFR 121.2505; 28 F.R. 3260, 5562, 11628) should be amended to provide for the use of additional substances as components of slimicides used in the manufacture of paper and paperboard that contact food. Therefore, pursuant to the provisions of the Federal Food, Drug, and Cosmetic Act (sec. 409(c)(1), 72 Stat. 1786; 21 U.S.C. 348(c)(1)), and under the authority delegated to the Commissioner by the Secretary of Health, Education, and Welfare (21 CFR 2.90; 29 F.R. 471), § 121.2505 *Slimicides* is amended:

1. By inserting alphabetically in the list of slime-control substances in paragraph (c) the new item "Bis (trichloromethyl) sulfone."

2. By inserting alphabetically in the list of adjuvant substances in paragraph (d) the new item "*N,N*-Dimethylformamide."

Any person who will be adversely affected by the foregoing order may at any time within 30 days from the date of its publication in the FEDERAL REGISTER file with the Hearing Clerk, Department of Health, Education, and Welfare, Room 5440, 330 Independence Avenue SW., Washington 25, D.C., written objections thereto. Objections shall show wherein the person filing will be adversely affected by the order and specify with particularity the provisions of the order deemed objectionable and the grounds for the objections. If a hearing is requested, the objections must state the issues for the hearing. A hearing will be granted if the objections are supported by grounds legally sufficient to justify the relief sought. Objections may be accompanied by a memorandum or brief in support thereof. All documents shall be filed in quintuplicate.

Effective date. This order shall be effective on the date of its publication in the FEDERAL REGISTER.

(Sec. 490(c)(1), 72 Stat. 1786; 21 U.S.C. 348(c)(1))

Dated: May 19, 1964.

GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F.R. Doc. 64-5175; Filed, May 22, 1964; 8:47 a.m.]

SUBCHAPTER C—DRUGS

PART 146a—CERTIFICATION OF PENICILLIN AND PENICILLIN-CONTAINING DRUGS

PART 146e—CERTIFICATION OF BACITRACIN AND BACITRACIN-CONTAINING DRUGS

Antibiotic Drugs; Changes in Expiration Dates

Under the authority vested in the Secretary of Health, Education, and Welfare by the Federal Food, Drug, and Cosmetic Act (sec. 507, 59 Stat. 463 as amended; 21 U.S.C. 357) and delegated to the Commissioner of Food and Drugs by the Secretary (21 CFR 2.90; 29 F.R. 471), the regulations for the certification of antibiotic and antibiotic-containing drugs are amended for the purpose of changing expiration dates as follows:

1. In § 146a.18 *Phenethicillin potassium (potassium α-Phenoxyethyl penicillin) for oral solution* (21 CFR 146a.18; 28 F.R. 11454, 12743), paragraph (c)(1)(ii) is amended by changing the words "or 42 months" to read "42 months, or 48 months."

2. In § 146e.427 *Feed grade bacitracin powder oral veterinary* * * * (21 CFR 146e.427; 29 F.R. 3397), paragraph (b) is amended by changing the words "of 24 months may be used if the manufacturer" to read "of 24 months or 36 months may be used if the manufacturer."

Notice and public procedure and delayed effective date are not necessary prerequisites to the promulgation of this order, and I so find, since the changes are such that they cannot be applied to any specific product unless and until the manufacturer thereof has supplied adequate data regarding that article.

Effective date. This order shall be effective on the date of its publication in the FEDERAL REGISTER.

(Sec. 507, 59 Stat. 463 as amended; 21 U.S.C. 357)

Dated: May 19, 1964.

GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F.R. Doc. 64-5176; Filed, May 22, 1964; 8:48 a.m.]

Title 38—PENSIONS, BONUSES, AND VETERANS' RELIEF

Chapter I—Veterans Administration

PART 2—DELEGATIONS OF AUTHORITY

Miscellaneous Amendments

1. In § 2.1, paragraph (b) is amended to read as follows:

§ 2.1 Delegation of authority to employees to issue subpenas, etc.

* * * * *

(b) Designated positions: Assistant Administrator for Management and Evaluation; Director, Investigation Service; heads of regional offices and centers having insurance activities, regional office activities, or both.

* * * * *

2. Former § 2.3 has been canceled and incorporated in the revised § 2.4 and a new § 2.3 has been added so that the revised sections read as follows:

§ 2.3 Delegation of authority to order paid advertising for community placement homes.

(a) Advertisements for homes willing to provide room, board, personal supervision and such other services as are needed for placements of patients in the community under social work supervision, may be placed in newspapers and periodicals with local circulation in the communities which the station uses for such placements.

(b) Authority to order such advertising is hereby delegated to the Chief Medical Director and heads of Veterans Administration hospitals, domiciliaries, outpatient clinics and regional offices with outpatient clinics pursuant to section 12 of the Act of August 2, 1946, Public Law 600, 79th Congress (5 U.S.C. 22a).

§ 2.4 Delegation of authority to order paid advertising for use in recruitment.

Paid advertisements may be used in recruitment for competitive and excepted service positions. Such advertisements for positions other than physicians, dentists, and nurses in the Department of Medicine and Surgery, will be used only to the extent authorized by Civil Service Commission instructions. Authority to order such advertising is hereby delegated to the Chief Benefits Director, Chief Data Management Director, Chief Medical Director, Area Medical Directors, the Assistant Administrator for Personnel and field station heads, pursuant to 5 U.S.C. 22a. The authority delegated to Area Medical Directors, and field station heads is subject to such administrative controls as may be imposed by their Departments. The authority delegated in this section may not be redelegated.

(72 Stat. 1114; 38 U.S.C. 210)

These VA Regulations are effective the date of approval.

Approved: May 19, 1964.

By direction of the Administrator.

[SEAL] W. J. DRIVER,
Deputy Administrator.

[F.R. Doc. 64-5184; Filed, May 22, 1964; 8:48 a.m.]

PART 21—VOCATIONAL REHABILITATION AND EDUCATION

Subpart B—Education of Korean Conflict Veterans Under 38 U.S.C. Ch. 33

MISCELLANEOUS AMENDMENTS

1. In § 21.2012(a), subparagraph (1) (ii) is added, a new subparagraph (2) is added and the former subparagraph (2) is redesignated (3) so that the added and redesignated material reads as follows:

§ 21.2012 Commencement; time limitations.

(a) *Initiation of program.* * * *

(1) * * *

(ii) Notwithstanding the provisions of subdivision (i) of this subparagraph, a veteran who was discharged or released from a qualifying period of active service during the Korean conflict under dishonorable conditions and who initiated training on his own shall be considered to have timely commenced training under chapter 33 (and allowances may be authorized retroactively) provided all of the following conditions are met:

(*a*) The veteran's application for a change of the nature of his discharge or release was filed with the appropriate service department within 3 years from the date of such discharge or

(*b*) The nature of his discharge or release was subsequently changed to under other than dishonorable conditions;

(*c*) He applied for an approved program of education or training within 3 years from the date of his discharge or release and such application was denied by the Veterans Administration for the sole reason that his discharge or release was determined to have been under dishonorable conditions;

(*d*) He enrolled in and began the active pursuit of an approved program of education or training within 3 years from the date of his discharge or release from active service.

(2) The deadline for beginning a program of education or training determined in accordance with subparagraph (1) of this paragraph may be extended for a veteran who had not passed such deadline at the time of a call to or extension of active duty after July 30, 1961, under Executive Order 10957 (26 F.R. 7541; 3 CFR 1961 Supp.). Such veteran's new initiation deadline date will be that date which is determined by adding to the date of his discharge or release from active duty, or to August 1, 1962, whichever occurred first, the number of months and days intervening the date of his call to or extension of active duty and his previous deadline date determined in accordance with subparagraph (1) of this paragraph.

(3) A program to be pursued exclusively by correspondence or which consists of correspondence study followed by residence study will be held to have been initiated (commenced) on the date the first lesson has been sent to the veteran by the school.

* * * * *

2. In § 21.2013(a), subparagraphs (1) and (2) are amended and subparagraphs (4) and (5) are added to read as follows:

§ 21.2013 Expiration of education and training.

(a) * * *

(1) Except as provided in subparagraphs (3) and (5) of this paragraph an eligible veteran who was discharged or released from active duty prior to January 31, 1955, shall be afforded no education or training beyond 8 years after his discharge or release.

(2) Except as provided in subparagraphs (3) and (5) of this paragraph an eligible veteran who was discharged or released from active duty on or after January 31, 1955, shall be afforded no education or training beyond 8 years from his first unconditional discharge after that date or January 31, 1965, whichever is earlier.

* * * * *

(4) A veteran who is determined to have timely commenced a program of education or training under the provisions of § 21.2012(a)(1)(ii) shall be afforded no education or training beyond 8 years from the date of such commencement.

(5) The expiration date for education and training established in accordance with subparagraph (1), (2), (3) or (4) of this paragraph may be extended for a veteran who had not passed such expiration date at the time of a call to or extension of active duty after July 30, 1961 under Executive Order 10957 (26 F.R. 7541; 3 CFR 1961 Supp.). Such veteran's new expiration date will be that date which is determined by adding to the date of his discharge or release from active duty, or to August 1, 1962, whichever occurred first, the number of months and days intervening the date of his call to or extension of active duty and his previous deadline date determined in accordance with subparagraph (1), (2), (3) or (4) of this paragraph.

3. In § 21.2054(a), subparagraph (2) is added, the introductory portion of paragraph (c) preceding subparagraph (1) is amended and in paragraph (e)(2), subdivision (i) is amended so that the added and amended material reads as follows:

§ 21.2054 Effective beginning dates of entrance or reentrance into training and for payment of education and training allowance.

(a) *Effective beginning date of entrance or reentrance into training.* * * *

(2) The effective beginning date for the authorization of entrance into training for a veteran who timely initiated a program of education or training under the exception contained in § 21.2012(a)(1)(ii) shall be the date of receipt of his disallowed application in the Veterans Administration, the date his application was filed with the appropriate service department for a change, correction, or modification of the nature of his discharge or August 1, 1956, whichever is later. In no event shall education or training allowances be authorized retroactive for more than 1 year from the date the disallowed claim is reopened if the period of eligibility arises on or after December 1, 1962.

* * * * *

(c) *Waiver of time limits.* Under the conditions stated in this paragraph, the Manager or Director may personally waive the time limits of paragraph (a) of this section. These time limits may also be waived by appellate decision.

* * * * *

(e) *Rates for dependents.* * * *

(2) * * *

(i) A letter will be written to the veteran requesting satisfactory evidence. If such evidence is received within 1 year of the date of the request, increased benefits because of dependency will be authorized as of the effective date of the original entrance into training, otherwise, as of the date of receipt of a new claim for increase.

4. In § 21.2056(a), subparagraphs (1), (2), (3) and (4) are amended and in paragraph (b), subparagraphs (1) and (11) are amended and subparagraph (12) is added so that the added and amended material reads as follows:

§ 21.2056 Effective date of change or discontinuance of education or training allowance.

(a) The effective date of a change in the authorization of education or training allowance shall be:

(1) Death of dependent—last day of the month in which the death occurs.

(2) Divorce—last day of the month in which the divorce was granted.

(3) Child—the day preceding 18th anniversary of date of birth, or, if attending school after age 18, the last day of month in which the child ceases to attend school, or the day preceding the 21st anniversary of the date of birth, whichever is the earlier; or the last day of the month in which a marriage is contracted; or the last day of the month following 60 days after notice to the payee of a determination that a physical or mental defect which has rendered a child incapable of self support has ceased.

(4) Additional dependents—date additional dependent is acquired, or the date of reentrance into training, whichever is later, provided the veteran's application for an increase because of dependents is received in the Veterans Administration within 60 days of either of the above dates and satisfactory evidence is received within 1 year of the date of Veterans Administration's request therefor. If the veteran's application for the increase is received after this 60-day limitation, the increase will be authorized from the date of receipt of the application, provided satisfactory evidence is received within 1 year of the date of the Veterans Administration's request therefor. If the evidence is not received within the 1-year period, the increased education and training allowance will be effective as of the date of receipt of a new claim for the increase.

* * * * *

(b) The effective date of discontinuance of educaton and training allowance shall be:

(1) Death of veteran—last date of attendance.

* * * * *

(11) In the event eligibility for educational benefits was established on the basis of fraudulent information furnished by the applicant or his representative—as of the beginning date of the award.

(12) In the event of treasonable act or subversive activities—as of the beginning date of the award or the date preceding the commission of the act resulting in forfeiture, whichever is later.

5. Section 21.2307 is revised to read as follows:

§ 21.2307 False or misleading statements.

(a) In each case where it is found that an educational institution or training establishment has willfully submitted a false or misleading claim, or where a veteran, with the complicity of an educational institution or training establishment, has submitted such a claim, the Manager or Director shall make a complete report of the facts of the case to the appropriate State approving agency and, where deemed advisable, to the United States attorney, for appropriate action. Referrals to the United States attorney shall be made in accordance with existing VA regulations by the Chief Attorney, if he is of the opinion that there is a basis for either civil or criminal action. Any such case may be referred to the General Counsel for consideration as to whether it should be referred to the Department of Justice. If it is determined upon review that referral to the Department of Justice is not warranted or, if after such referral, prosecution is declined by the Department of Justice, the claim will be settled on the basis of the benefits to which the veteran is actually entitled under applicable regulations.

(1) Where it is determined prior to payment of a claim that the certification is false or misleading, payment shall be made for only that portion of the claim to which the claimant is rightfully entitled.

(2) Where the falsity of a certification or claim is discovered after payment has been released an overpayment shall be set up for only that portion of the claim to which the claimant was not rightfully entitled.

(b) The submission of a claim determined to be false in whole or in part shall not, within itself, constitute a bar to further training provided the provisions of § 21.2304(a) have been satisfied with respect to any overpayment resulting from the claim.

(c) The provisions of paragraphs (a) and (b) of this section are not for application where forfeiture of all rights has been or may be declared under the circumstances outlined in § 3.901 of this chapter.

(38 U.S.C. 1668, 3503; Public Law 86-222) (72 Stat. 1114; 38 U.S.C. 210)

These VA Regulations are effective the date of approval.

Approved: May 19, 1964.

By direction of the Administrator.

[SEAL] W. J. DRIVER,
Deputy Administrator.

[F.R. Doc. 64-5185; Filed, May 22, 1964; 8:48 a.m.]

PART 21—VOCATIONAL REHABILITATION AND EDUCATION

Subpart C—War Orphans' Educational Assistance Under 38 U.S.C. Ch. 35

MISCELLANEOUS AMENDMENTS

1. Sections 21.3000 and 21.3005 are revised to read as follows:

§ 21.3000 Statement of policy.

The Congress of the United States has declared that the educational program established by 38 U.S.C. Ch. 35 is for the purpose of providing opportunities for education to children whose education would otherwise be impeded or interrupted by reason of the death of a parent from a disease or injury incurred or aggravated in the Armed Forces during the Spanish-American War, World War I, World War II, the Korean conflict, or the induction period and for the purpose of aiding such children in attaining the educational status which they might normally have aspired to and obtained but for the death of such parent. (38 U.S.C. 1701(d))

§ 21.3005 Definitions.

(a) For the purpose of 38 U.S.C. Ch. 35, the following definitions apply:

(1) The term "Spanish-American War" (i) means the period beginning on April 21, 1898, and ending on July 4, 1902, (ii) includes the Philippine Insurrection and the Boxer Rebellion, and (iii) in the case of a veteran who served with the United States military forces engaged in hostilities in the Moro Province, means the period beginning on April 21, 1898, and ending on July 15, 1903. (38 U.S.C. 101(6))

(2) The term "World War I" (i) means the period beginning on April 6, 1917, and ending on November 11, 1918, and (ii) in the case of a veteran who served with the United States military forces in Russia, means the period beginning on April 6, 1917, and ending on April 1, 1920. (33 U.S.C. 101(7))

(3) The term "World War II" means the period beginning on December 7, 1941, and ending on December 31, 1946. (38 U.S.C. 101(8))

(4) The term "Korean conflict" means the period beginning on June 27, 1950, and ending on January 31, 1955. (38 U.S.C. 101(9))

(5) The term "induction period" means (i) the period beginning September 16, 1940, and ending December 6, 1941, and the period beginning January 1, 1947, and ending June 26, 1950, and (ii) the period beginning on February 1, 1955, and ending on the day before the first day thereafter on which individuals (other than individuals liable for induction by reason of a prior deferment) are no longer liable for induction for training and service into the Armed Forces under the Universal Military Training and Service Act. (38 U.S.C. 1701(a)(9))

(6) The term "eligible person" means a child of a person who died of a service-connected disability arising out of active military, naval, or air service (see subparagraphs (10), (11), (12), and (13) of this paragraph) during the Spanish-American War, World War I, World War II, the Korean conflict, or the induction period, but only if such service did not terminate under dishonorable conditions.

(i) The standards and criteria for determining whether or not a disability arising out of a period of wartime service is service connected shall be those applicable under 38 U.S.C. Ch. 11.

(ii) The standards and criteria for determining whether or not a disability arising out of service during the induction period is service-connected shall be those applicable under 38 U.S.C. Ch. 11, except that the disability must (*a*) be shown to have directly resulted from, and the causative factor therefor must be shown to have arisen out of the performance of active military, naval, or air service (not including service described under 38 U.S.C. 106) or (*b*) have resulted (*1*) directly from armed conflict or (2) from an injury or disease received while engaged in extra-hazardous service (including service under conditions simulating war). (38 U.S.C. 1701(a)(1))

(7) The term "child" means a legitimate child, a legally adopted child, a stepchild who is a member of a veteran's household or was a member at the time of the veteran's death, or an illegitimate child but, as to the alleged father, only if acknowledged in writing signed by him, or if he has been judicially ordered to contribute to the child's support or has been, before his death, judicially decreed to be the father of such child, or if he is otherwise shown by evidence satisfactory to the Administrator to be the father of such child. The term shall include individuals who are married and individuals who are above the age of twenty-one.

(i) A person shall be considered, as of the date of death of a veteran, to be the legally adopted child of such veteran if a person was at the time of the veteran's death living in the veteran's household and was legally adopted by the veteran's surviving spouse within 2 years after the veteran's death or August 25, 1959. This concept is not to be applied if at the time of the veteran's death the child was receiving regular contributions toward his support from some individual other than the veteran or his spouse, or from any public or private welfare organization which furnished services or assistance for children. (38 U.S.C. 101(4) and 1701(a)(2))

(8) The term "Armed Forces" means the United States Army, Navy, Marine Corps, Air Force, and Coast Guard, including Reserve components thereof as

defined in § 21.2005(d)(1). (38 U.S.C. 101(10))

(9) The term "duty with the Armed Forces" as used in §§ 21.3010(a) and 21.3016(c)(2), means (i) active duty, (ii) active duty for training for a period of six or more consecutive months or (iii) active duty for training required by 50 U.S.C. 1013(c)(1), i.e., an initial period of active duty for training of not less than 3 months nor more than 6 months in the Ready Reserve. (38 U.S.C. 1701(a)(3))

(10) The term "active military, naval or air service" includes active duty, any period of active duty for training during which the individual concerned was disabled or died from a disease or injury incurred or aggravated in line of duty, and any period of inactive duty training during which the individual concerned was disabled or died from an injury incurred or aggravated in line of duty. (38 U.S.C. 101(24))

(11) The term "active duty" means (i) Full-time duty in the Armed Forces, other than active duty for training;

(ii) Full-time duty (other than for training purposes) as a commissioned officer of the Regular or Reserve Corps of the Public Health Service or as a commissioned officer of the Coast and Geodetic Survey during the basic service period only while under detail or on transfer respectively by proper authority with the Army, the Navy, the Air Force, the Marine Corps, or the Coast Guard of the United States;

(iii) Service as a cadet at the United States Military, Air Force or Coast Guard Academy, or as a Midshipman at the United States Naval Academy;

(iv) Authorized travel to or from such duty or service. (38 U.S.C. 101(21))

(12) The term "active duty for training" means (i) Full-time duty in the Armed Forces performed by Reserves for training purposes;

(ii) Full-time duty for training purposes performed as a commissioned officer of the Reserve Corps of the Public Health Service on or after July 29, 1945, or before that date under circumstances affording entitlement to "full military benefits";

(iii) In the case of members of the National Guard or Air National Guard of any State, full-time duty under sections 316, 502, 503, 504 and 505 of Title 32, United States Code, or the prior corresponding provisions of the law; and

(iv) Authorized travel to and from such duty. (38 U.S.C. 101(22))

(13) The term "inactive duty training" means (i) Duty (other than full-time duty) prescribed for Reserves (including commissioned officers of the Reserve Corps of the Public Health Service) by the Secretary concerned under section 206 of Title 37, United States Code (formerly section 301 of Title 37) or any other provision of law; and

(ii) Special additional duties authorized for Reserves (including commissioned officers of the Reserve Corps of the Public Health Service) by an authority designated by the Secretary concerned and performed by them on a voluntary basis in connection with the prescribed training or maintenance activities of the units to which they are assigned;

(iii) In the case of the National Guard or the Air National Guard of any State, such term means duty (other than full-time duty) under sections 316, 502, 503, 504 and 505 of Title 32, United States Code, or prior corresponding provisions of law. (38 U.S.C. 101(23))

(14) The term "parent or guardian" means a father, a mother, a father through adoption, a mother through adoption, a fiduciary legally appointed by a court of competent jurisdiction or any person who is determined by the Administrator in accordance with 38 U.S.C. 3202, to be otherwise legally vested with the care of the eligible person. (38 U.S.C. 101(5) and 1701(a)(4))

(15) The term "program of education" means any curriculum or any combination of unit courses or subjects pursued at an educational institution which is generally accepted as necessary to fulfill the requirements for the attainment of a predetermined and identified educational, professional or vocational objective. (38 U.S.C. 1701(a)(5)) This may include specialized vocational courses for mentally or physically handicapped persons which are generally recognized as preparing such persons for the attainment of predetermined vocational objectives.

(16) The term "educational institution" means any public or private secondary school, vocational school, business school, junior college, teachers' college, college, normal school, professional school, university, or scientific or technical institution, or any other institution if it furnishes education at the secondary school level or above. (38 U.S.C. 1701(a)(6)) This term will include institutions which provide specialized vocational courses for the mentally or physically handicapped generally recognized as on the secondary school level or above.

(17) The term "State" means each of the several States, Territories, and possessions of the United States, the District of Columbia, the Commonwealth of Puerto Rico, and the Canal Zone. (38 U.S.C. 101(20) and 1701(a)(8)) (Although the Republic of the Philippines is not included in the definition of a State, eligible persons may pursue courses of training therein under 38 U.S.C. Ch. 35.)

(18) The term "Administrator" means the Administrator of Veterans Affairs. (38 U.S.C. 101(1))

(19) The term "special restorative training" means training furnished under subchapter V of 38 U.S.C. Ch. 35.

(20) The term "law" wherever it appears in this subpart means 38 U.S.C. Ch. 35, effective January 1, 1959, with amendments thereto, and the corresponding provisions of the War Orphans' Educational Assistance Act of 1956 (Public Law 634, 84th Congress, as amended).

(21) The terms "enroll" and "reenroll," whatever their form or reference, mean the actual commencement or recommencement of and the active pursuit of the program of education or special restorative training under the provisions of the law.

(22) The term "completion of secondary school education" means the completion of a curriculum offered by a public or private school which satisfies the requirements for a high school diploma or its equivalent—usually completion of the 12th grade in the public school system.

(b) If an eligible person has attained his majority under the laws applicable in his State of residence as shown on his application and is under no known legal disability all references in the regulations under 38 U.S.C. Ch. 35 to the "parent or guardian" shall refer to the eligible person himself.

2. Following the center title "Eligibility and Entitlement," §§ 21.3010, 21.3014, 21.3016, 21.3017, 21.3018, and 21.3030 are revised to read as follows:

§ 21.3010 Entitlement to educational assistance.

(a) Each eligible person as defined in § 21.3005(a)(6) shall, subject to the provisions of 38 U.S.C. Ch. 35, be entitled to receive educational assistance (including special restorative training when needed); except that,

(1) If the person himself served with the Armed Forces, his discharge or release from each period of such service must have been under conditions other than dishonorable.

(2) No educational assistance may be provided an otherwise eligible person during any period he is on duty with the Armed Forces.

(3) No person shall be eligible for educational assistance who reached his 23d birthday on or before June 29, 1956, or whose parent's death occurred on or after his 23d birthday.

(b) The determination as to whether death was due to a service-connected disability arising out of active military, naval, or air service during the Spanish-American War, World War I, World War II, the Korean conflict, or the induction period shall be made by the Adjudication activity.

(c) Where the character of an eligible person's discharge or release is neither honorable nor dishonorable and it is not clear whether the circumstances under which he was discharged or released from duty with the Armed Forces might bar eligibility to educational assistance, the determination as to whether he was discharged under other than dishonorable conditions will be made by the Adjudication activity.

§ 21.3014 Duration of eligible person's entitlement.

(a) Each eligible person shall be entitled to educational assistance (including special restorative training where needed) for a period not in excess of 36 months (or the equivalent thereof in part-time training). (38 U.S.C. 1711(a))

(1) The period of entitlement of an eligible person under 38 U.S.C. Ch. 35, shall be reduced by the full-time equivalent of any period of education or training received by him under 38 U.S.C. Ch. 33 or 38 U.S.C. Ch. 31. (38 U.S.C. 1711(b))

(i) The period of entitlement shall not be reduced by any period during which

subsistence allowance was paid after determination of employability following vocational rehabilitation under 38 U.S.C. Ch. 31.

§ 21.3016 Age limitations.

(a) A program of education or special restorative training to which an eligible person is entitled under 38 U.S.C. Ch. 35, may not be afforded prior to the person's 18th birthday or the successful completion of his secondary schooling, whichever first occurs, unless one of the conditions described in subparagraphs (1) and (2) of this paragraph exists, and it is determined through counseling that the best interests of the eligible person will be served by initiation of his training at an earlier date:

(1) He has passed compulsory school attendance age under applicable State law; or

(2) He has passed his 14th birthday and due to physical or mental handicap consideration of special restorative or specialized vocational training is appropriate.

(b) In no instance may training be afforded under 38 U.S.C. Ch. 35 after the exhaustion of 36 months of entitlement or after the exhaustion of a lesser amount of entitlement computed under § 21.3014 (a)(1).

(c) The period of eligibility for educational assistance or special restorative training under 38 U.S.C. Ch. 35 shall end on the 23d birthday of the eligible person, except that:

(1) For the eligible person who had reached his 18th birthday but not his 23d birthday on June 29, 1956, the period of eligibility shall end on June 29, 1961.

(2) For the eligible person who served on duty with the Armed Forces after his 18th birthday but before his 23d birthday, the period of eligibility shall end 5 years from the date of his first discharge or release from such duty, but not after his 31st birthday unless extended under the provisions of subparagraph (9) or (10) of this paragraph.

(3) For a person whose eligibility is derived from a parent who dies after June 29, 1956, and after the eligible person's 18th birthday but before his 23d birthday, the period of eligibility shall end 5 years after the date of the death of the parent.

(4) For a person whose eligibility is derived from a veteran of the Spanish-American War (§ 21.3005(a)(1) and who had reached his 18th birthday but not his 23d birthday on September 8, 1959, the period of eligibility shall not end until September 8, 1964.

(5) For a person whose eligibility is derived from a veteran of the induction period (§ 21.3005(a)(5)) and who had reached his 18th but not his 23d birthday on September 14, 1960, the period of eligibility shall not end until September 14, 1965.

(6) For an eligible person who had not reached his 23d birthday on June 29, 1956, and who resided in the Republic of the Philippines during all or a part of the period, June 29, 1956 through June 18, 1958, the period of eligibility shall not end before June 18, 1963.

(7) For an eligible person whose period of eligibility has been extended under the provisions of subparagraph (2) of this paragraph and who was called to active duty after July 30, 1961 under Executive Order 10957, a new ending date of eligibility shall be determined by adding to the date of his discharge or release from such active duty or to August 1, 1962, whichever occurred first, the number of months and days intervening the date of his call to active duty and the ending date of his previous period of eligibility. Such new ending date of eligibility shall be no later than the person's 31st birthday unless extended under the provisions of subparagraph (9) or (10) of this paragraph.

(8) For an eligible person who suspends his program due to conditions determined by the Veterans Administration to have been beyond his control, as defined for veterans in § 21.2012 (b)(1) (i), (ii), (iii) and (v), the ending date of his period of eligibility as previously determined under this paragraph shall, upon his request, be extended by the number of months and days intervening the date such suspension began and the date the condition that caused it ceased to exist. Such new ending date of eligibility shall be no later than the person's 31st birthday unless extended under the provisions of subparagraph (9) or (10) of this paragraph.

(i) Where such condition ceased to exist during a quarter or semester of a regular school year or summer term, continued suspension to the end of such quarter, semester or term shall be considered to have been due to conditions beyond the person's control and the additional period shall be included in the computation of the total number of intervening months and days.

(ii) In a school which does not operate on a term, quarter or semester basis, the period of suspension shall be considered to have ended as of the date of the person's first available opportunity to resume training after the condition which caused it ceased to exist.

(9) When the period of eligibility for an eligible person enrolled in an educational institution regularly operated on a quarter or semester system ends during the last half of a quarter or semester, such period of eligibility shall be extended to the end of the unexpired quarter or semester, provided such extension does not exceed the limitations in paragraph (b) of this section.

(10) When the period of eligibility for an eligible person enrolled in courses offered by educational institutions not operating on a quarter or semester system ends during the last half of the course, such period of eligibility shall be extended to the end of the course or for 9 weeks, whichever is earlier, provided such extension does not exceed the limitations in paragraph (b) of this section.

(d) For the purpose of the provisions of paragraph (c) (9) and (10) of this section, the definitions of quarter, semester, "summer quarter" (term or session), etc., as contained in § 21.2014(c)(3) shall be for application.

(e) The term "duty with the Armed Forces" as used in paragraph (c)(2) of this section is defined in § 21.3005(a)(9).

(f) The term "first discharge or release" as used in paragraph (c)(2) of this section means the first unconditional discharge or release from duty with the Armed Forces. A discharge or release will be considered unconditional if the person is eligible for complete separation from duty with the Armed Forces on the date the discharge or release is issued.

§ 21.3017 Election of benefits.

(a) An eligible person who is entitled to educational assistance under 38 U.S.C. Ch. 35 and also to vocational rehabilitation under 38 U.S.C. Ch. 31 must elect whether he will receive educational assistance under 38 U.S.C. Ch. 35 or vocational rehabilitation under 38 U.S.C. Ch. 31. If he elects to receive educational assistance under 38 U.S.C. Ch. 35, he will have no further right to vocational rehabilitation training under 38 U.S.C. Ch. 31, except that such election will not bar him from pursuing vocational rehabilitation to overcome a handicap arising out of a period of service subsequent to the election. If he elects to receive vocational rehabilitation under 38 U.S.C. Ch. 31, he will have no further right to educational assistance under 38 U.S.C. Ch. 35. The election of benefits shall be in writing.

(b) An eligible person who enters or resumes a program of education or special restorative training under 38 U.S.C. Ch. 35, after he initially has been determined to have a compensable disability incurred during the period from June 27, 1950 to January 31, 1955, inclusive, and notified of potential rights to vocational rehabilitation under 38 U.S.C. Ch. 31, or continues to pursue a program of education or special restorative training under 38 U.S.C. Ch. 35 for a period of more than 30 days after such notification without having filed an application for vocational rehabilitation under 38 U.S.C. Ch. 31, or, having filed such an application, continues under 38 U.S.C. Ch. 35 for a period of more than 30 days after being found in need under 38 U.S.C. Ch. 31 will be considered to have made his election.

(c) Where an eligible person becomes entitled to vocational rehabilitation training under 38 U.S.C. Ch. 31, after having commenced a program of education or special restorative training under 38 U.S.C. Ch. 35, and elects to receive vocational rehabilitation the program of education or special restorative training previously pursued under 38 U.S.C. Ch. 35 shall be utilized to the fullest extent practicable in determining the character and duration of vocational rehabilitation to be furnished him.

§ 21.3018 Entitlement charges.

(a) Charges against entitlement of an eligible person pursuing a program of education will be made in terms of months and days for periods during which the person is carried in a training status.

(1) Where a program of education or training is pursued on a full-time basis the total elapsed time will be charged against the eligible person's entitlement.

(2) Where a program of education or training is pursued on a three-fourths or one-half time basis a proportionate rate of the elapsed time will be charged against the eligible person's entitlement.

(i) A fraction of more than one-half day in the final result will be counted as 1 day. A fraction of one-half day or less will be disregarded.

§ 21.3030 Applications.

(a) The parent or guardian of a person for whom a program of education or special restorative training is sought under this law shall submit an application to the Veterans Administration on VA Form 22–5490. The receipt of such form fully and completely executed as to all essential items is a prerequisite to the approval of a program of education or special restorative training. If an application is not complete, the parent or guardian will be requested to submit a fully completed application.

(b) Any communication from or action by a parent or guardian which clearly indicates an intent to apply for benefits under the law may be considered an informal application thereunder if followed promptly by a formal application, VA Form 22–5490, properly executed. The effective date of an application (formal or informal) will be the date of its receipt in the Veterans Administration. The act of an eligible person enrolling in an approved institution does not, in itself, constitute an informal application.

(c) Upon receipt of the properly completed application a determination shall be made as to whether the person on whose behalf the application has been filed is an eligible person. If the person is found to be eligible, the parent or guardian shall be notified of provisional approval of the application. If the person is found to be ineligible, the parent or guardian shall be notified of disapproval.

(d) Further determinations concerning the provisionally approved application shall be pursuant to §§ 21.3031 and 21.3300 respecting counseling and the development of an educational plan, or pursuant to the provisions of §§ 21.3226 and 21.3227 where application has been made for special restorative training.

(e) An approved program may consist in part of subjects offered by television.

(1) *Open circuit telecast.* An approved program comprised of undergraduate subjects may be pursued in part by open circuit telecast under the following conditions:

(i) The eligible person is enrolled as a resident student in a program leading to a standard college degree.

(ii) The subjects taken by television are integral parts of his degree program.

(iii) A major portion of the credit hours for which the eligible person is enrolled during any semester or quarter is offered through conventional classroom and/or laboratory sessions.

(a) In no instance may an eligible person include in his program during any one semester or quarter more than 6 credit hours of open circuit telecast instruction for the purpose of computing the rate of education and training allowance. For example, an eligible person may pursue 8 or more credit hours during any one quarter or semester through regular classroom and/or laboratory instruction and 6 credit hours by open circuit telecast for a full-time resident training load.

(2) *Closed circuit telecast.* Instruction offered through the medium of closed circuit telecast which requires regular classroom attendance is not subject to the limitations in subparagraph (1) of this paragraph respecting open circuit telecasts, and is otherwise to be recognized to the same extent as regular classroom and/or laboratory instruction.

3. Immediately following § 21.3030, the center title is deleted.

4. Sections 21.3031 and 21.3031a are revised to read as follows:

§ 21.3031 Development of educational program and final approval of application.

(a) When an application for educational assistance is approved provisionally, the eligible person (and if a minor, the parent or guardian also) will be informed that prior to final approval counseling must be provided to assist in the selection of an objective and in developing a program of education.

(1) A program of education shall include the course or courses needed to attain a chosen objective and the institution(s) selected to provide them.

(2) The objective to be attained through a program of education will be identified in accordance with the following criteria:

(i) An educational objective will be designated as the completion of a course or courses leading to the award of a diploma, degree or certificate which indicates educational attainment.

(ii) A professional or vocational objective will be designated in terms of an occupation for which the eligible person desires to prepare.

(iii) When a professional or vocational objective is selected, it may include such educational objectives as may be essential to prepare for the chosen occupation.

(iv) Any program consisting of a series of courses not leading to an educational objective must be related directly to attainment of a designated professional or vocational objective.

(v) When the program of education will consist of a specialized vocational training course for a handicapped person, the occupation for which the training is to prepare the eligible person will be designated as a vocational objective.

(b) During or subsequent to counseling the eligible person (with concurrence of the parent or guardian, if a minor, and with the assistance of the counselor, if desired), shall prepare an educational plan on a prescribed form which will be signed and treated as an integral part of the application. The educational plan shall show the objective and program selected, the institution(s) where the program will be pursued and the estimated cost for tuition and fees.

(c) The case of a handicapped eligible person who has passed his fourteenth birthday for whom a specialized course of vocational training appears indicated, will be referred by the counselor to the Vocational Rehabilitation Board. The Board will determine whether pursuit of such course will be in the best interest of the eligible person. If the determination is affirmative, the counselor with the assistance of other members of the Board will develop a suitable program and educational plan. Upon final approval of the application, the case will be referred to the proper staff person to implement the educational plan. If the Board determines that pursuit of a specialized course of vocational training will not be in the best interest of the eligible person, the application for a program of education will be denied, and the parent or guardian will be so advised and informed of his right of appeal.

(d) Final approval will be given to an application including the educational plan, prepared as provided in this section, when it is determined that:

(1) The program of education selected meets the criteria contained in the definition of a program of education as stated in § 21.3005(a)(15),

(2) The eligible person is not already qualified by reason of previous education or training for the objective for which the program is offered (see § 21.2031(b)(3)(i), (ii) and (iii)),

(3) The program of education does not contain courses or elements the enrollment in which is precluded by § 21.3033,

(4) Pursuit of the proposed program of education does not violate any provision of 38 U.S.C. Ch. 35.

§ 21.3031a Specialized vocational rehabilitation assistance for eligible persons.

(a) The assistance of a vocational rehabilitation specialist or of a counselor with assigned vocational rehabilitation specialist duties will be provided in connection with a program of education when it is determined by the Vocational Rehabilitation Board that, although the eligible person is not in need of special restorative training under § 21.3226, he will require assistance in order to pursue a program of education successfully because of the handicapping effects of a physical or mental condition, or because of personal adjustment problems.

(b) The determination as to need for such assistance will be made by the Vocational Rehabilitation Board upon the basis of information developed in the counseling process, including data and opinions obtained from medical and other specialists as appropriate in the case.

(1) A determination that an eligible person needs such assistance will be made when one or more of the following conditions is found to exist:

(i) The handicapping effects of a physical or mental condition are such that assistance will be required in order for the eligible person to enter and successfully pursue a program of education;

(ii) The eligible person has a history of a behavioral pattern which if continued would interfere with or impede his entrance into and pursuit of a program of education.

(2) The Vocational Rehabilitation Board will include in its report of a determination as to the need for assistance, the factors taken into account in arriving at the determination and, where an affirmative determination of such need is found, the Board will include suggestions and recommendations relative to the nature of the assistance which appears to be indicated in the case.

(c) When it is determined by the Vocational Rehabilitation Board that an eligible person needs assistance, the parent or guardian will be informed of the finding and of the underlying reasons. If the parent or guardian concurs in the finding, the assistance will be provided as is indicated until the progress and adjustment of the eligible person in his program of education are such that it is no longer needed.

(d) Assistance by the vocational rehabilitation specialist shall include:

(1) Assisting the eligible person and the educational institution in the implementation of the planned program of education;

(2) Determining the progress of the eligible person through visits at the educational institution as well as through review of records and, when indicated, taking action designed to solve problems which may interfere with satisfactory pursuit of the program of education;

(3) Making referral when indicated and coordinating action with responsible individuals and agencies in order to alleviate or prevent conditions arising which may negatively affect progress;

(4) Referring the case of an eligible person who is receiving assistance to the Vocational Rehabilitation Board when one of the following conditions exists:

(i) Need for special restorative training appears to be for consideration;

(ii) The advice and assistance of the Board is needed to resolve difficulties.

(5) Assisting the parent or guardian in locating and arranging for the services of suitable instructors and equipment when the eligible person is homebound.

(e) Special training allowances under § 21.3229 will not be paid on behalf of an eligible person who is in training under the provisions of this section.

5. In § 21.3032, paragraphs (b) and (d) are amended to read as follows:

§ 21.3032 Change of program.

* * * * *

(b) The definition of a change of program as contained in § 21.2032(b)(1) will govern.

* * * * *

(d) When, as a result of further counseling, a change of program is recommended, the change will be approved if the educational plan submitted meets the criteria which are applicable to the final approval of an original application (§ 21.3031(d)).

6. In § 21.3033(b), subparagraph (2), the introductory portion of subparagraph (3) immediately preceding subdivision (i), and subparagraph (4) are amended to read as follows:

§ 21.3033 Courses precluded.

* * * * *

(b) *Other courses.* The Veterans Administration is prohibited from approving the enrollment under this law of an eligible person in the following courses:

* * * * *

(2) *Apprenticeship, on-farm, correspondence, and radio courses.* An eligible person may not pursue under 38 U.S.C. Ch. 35 any course of apprenticeship or other training on the job, any course of institutional on-farm training, or any course to be pursued by correspondence, radio, or television (except as provided in § 21.3030(e)).

(3) *Courses in foreign countries.* A course may be pursued under this law at an educational institution not located in a State as defined in § 21.3005(a)(17) or in the Republic of the Philippines only when all of the following conditions are met:

* * * * *

(4) *Courses on secondary level.* (i) A curriculum offered by a public or private school at the secondary school level leading to the completion of the eligible person's regular secondary school education, that is, leading to a high school diploma or its equivalent, may not be pursued as a program of education or as a part of a course of education under 38 U.S.C. Ch. 35.

(ii) Where the eligible person has ended his secondary school education by completion, or otherwise after having passed the age of compulsory school attendance, he may pursue a specialized vocational program of education in a school at the secondary level if such program leads to a bona fide vocational objective. Such a program may be pursued if it is deemed adequate to prepare graduates to enter directly into employment in the community in the occupation or vocation which the eligible person expects to enter. Past experience of graduates of the specialized vocational program in obtaining employment will be given due consideration.

(iii) In those instances where the program, although containing essential elements of vocational instruction, includes a heavy weighting of academic subjects of secondary level thereby requiring for completion a total number of instructional hours approximately equal to that normally required for high school graduation, a determination will be proper that enrollment by eligible persons is precluded under 38 U.S.C. Ch. 35.

7. In § 21.3034, paragraph (b) is amended to read as follows:

§ 21.3034 Discontinunace for unsatisfactory conduct or progress.

* * * * *

(b) *Maintenance of satisfactory conduct and progress.* Educational assistance allowance will be discontinued in any case where it is established that by reason of his unsatisfactory conduct or progress the eligible person will no longer be retained as a student or would not be readmitted as a student by the educational institution in which he is or was enrolled, unless it is found through further development that the action of the school is of a retaliatory nature.

8. In § 21.3051, paragraphs (c), (e)(1)(i) and (g) are amended to read as follows:

§ 21.3051 Conditions governing payment of educational assistance allowance.

* * * * *

(c) Parents or guardians normally or generally have responsibilities with respect to the education of their children. There will be some instances, however, where because of distance, illness, indifference, etc., such responsibility will not be properly exercised. In recognition of this fact, when it is found by the Manager or Director after investigation that it would be contrary to the best interest of the eligible person, would result in undue delay, or would not be administratively feasible, the regulations governing submission of application and other action required to be taken by or with respect to the parent or guardian shall not apply. In such event, the eligible person himself shall be designated as the person by whom the required actions should be taken, unless the Manager or Director determines that there is some known reason to conclude that the eligible person should not be so designated. In this event, the Chief Attorney will designate a person suitable to take such actions and/or receive the payments.

* * * * *

(e) * * *

(1) *Course leading to a standard college degree.* (i) Any course which leads to an associate, baccalaureate, or higher degree, provided the conditions of § 21.2066 (d)(1)(i) or (ii) are met; or

* * * * *

(g) Payment of educational assistance allowance shall be subject to offset of amounts of compensation or pension or dependency and indemnity compensation paid over the same period on behalf of a child based on school attendance.

9. Sections 21.3054, 21.3055, 21.3056, 21.3057 and 21.3067 are revised to read as follows:

§ 21.3054 Effective beginning dates of entrance or reentrance into training and for payment of educational assistance allowance.

(a) *General.* No educational assistance allowance shall be paid for any period prior to October 1, 1956, the effective date of Public Law 634, 84th Congress.

(1) For training pursued in the Panama Canal Zone or the Republic of the Philippines, no educational assistance allowance shall be paid for any period prior to June 18, 1958, the effective date of Public Law 85–460.

(2) For persons whose eligibility is derived from a veteran of the Spanish-American War (§ 21.3005(a)(1)) no educational assistance allowance shall be paid for any period prior to September 8, 1959, the effective date of Public Law 86–236.

(3) For persons whose eligibility is derived from a veteran of the induction period (§ 21.3005(a)(5)), no educational assistance allowance shall be paid for

any period prior to September 14, 1960, the effective date of Public Law 86-785.

(b) *Effective beginning date of entrance or reentrance into training.* The effective beginning date for the authorization of entrance or reentrance into training shall be the date certified by the school or establishment in accordance with paragraph (c) of this section, or the date of approval of the course, whichever is the later, provided the eligible person's original application or request for a change of program or place of training (concurred in by his parent, guardian, or legal custodian) is received by the Veterans Administration not later than 15 days after the date of entrance or reentrance, and the State approving agency's notice of approval is received by the Veterans Administration not later than 60 days after the date of approval.

(1) If these time limits are not met, the effective beginning date shall be the date the Veterans Administration received the application or request, or the date 60 days prior to the date of receipt of the notice of approval, respectively. These time limits may be waived in accordance with paragraph (d) of this section.

(2) However, where counseling is delayed by an eligible person for 12 or more months, for other than a reason beyond his control, he will be considered to have abandoned his application for benefits or request for change under 38 U.S.C. Ch. 35. Should he at a later date report for and promptly complete counseling his application or request for change will be considered reopened. Under these conditions the effective beginning date for payment of educational assistance allowance will be the date of reopening, i.e., the date he reports for counseling, if otherwise in order.

(c) *Date of commencement or recommencement of a course*—(1) *Courses leading to a standard college degree.* The date of commencement or recommencement of a course leading to a standard college degree shall be the date that the school, under its customary practice, considers the eligible person to be an enrolled student. This date may not be earlier than the actual date of registration at the beginning of the enrollment period except where students are required by the published standards of the school to report in advance of registration, nor later than the date the eligible person first reports for classes.

(2) *Courses which do not lead to a standard college degree.* The date of commencement or recommencement in a course which does not lead to a standard college degree shall be the first date of class attendance.

(d) *Waiver of time limits.* Under the conditions stated in this paragraph, the Manager or Director may personally waive the time limits of paragraph (b) of this section. These time limits may also be waived by appellate decision pursuant to the appeal of the parent or guardian, or by the eligible person himself, where applicable.

(1) *Receipt of application or request for change of program or place of training.* This time limit may be waived if the facts, the equities and demonstrated good faith on the part of the parent, guardian, or legal custodian, or eligible person justify such action.

(2) *Receipt of a notice of approval from the State approving agency.* This time limit may be waived if the facts, equities and demonstrated good faith on the part of the parent, guardian, legal custodian or the eligible person and the State approving agency justify such action, provided:

(i) Approval action was not denied or withheld for cause during the retroactive period, and

(ii) Credit is granted toward completion of the course from the specified date of approval.

§ 21.3055 Effective closing dates of an authorization of educational assistance allowance.

(a) The effective closing date of the authorization of educational assistance allowance shall be whichever of the following occurs first:

(1) The ending date of the course.

(2) The ending date of a period of enrollment as certified by the school.

(3) The ending date of the eligible person's period of eligibility as determined in accordance with § 21.3016(c).

(4) The expiration of the entitlement, as extended by § 21.3016(c) (9) or (10) where applicable.

(5) The day before the eligible person's 31st birthday.

§ 21.3056 Effective date of change or discontinuance of educational assistance allowance.

(a) *Effective date of change.* The effective date of change in the authorization of educational assistance because of a change in the extent of the course being pursued, e.g., change from full-time to part-time pursuit of course, shall be the date the change occurred.

(b) *Effective dates of discontinuance.* The effective dates of discontinuance of the educational assistance allowance for each type of discontinuance are as follows. If two or more types of discontinuance are involved the earlier date will control.

(1) Training interrupted or discontinued before the completion of the course or certified period of enrollment—the last date of attendance, except that:

(i) If training is certified for the ordinary school year and the eligible person completes one or more terms, quarters or semesters within a school year but does not return for the next term, quarter or semester, the effective date of discontinuance shall be the end of the term, quarter or semester completed.

(2) Conduct or progress unsatisfactory—as of the date the eligible person is dropped by the school or as of the date such a determination is made by the Administrator, whichever is earlier.

(3) When periodic certifications not received and

(i) enrollment certified but no certifications received for the first two reporting periods—as of the end of the first reporting period,

(ii) after payment has been made for one or more periods and certifications are not received for two consecutive reporting periods—as of the end of the month for which the last proper payment was made.

(4) Disapproval of course by the State approving agency—as of the effective date of disapproval or date of receipt in Veterans Administration of the notice of disapproval, whichever is later.

(5) Disapproval of course by the Administrator—as of the date of disapproval.

(6) Discontinuance of allowances because of decision made under § 21.2208(d)(2)—as of the date specified in § 21.2208(d).

(7) School listed by the Attorney General (See § 21.2037)—as of the date before the date of such listing.

(8) Entrance of eligible person on active duty in the Armed Forces—as of the day before the date of entry into active duty. Brief periods of active duty for training performed by members of the Reserve components of the Armed Forces need not interrupt the payment of the educational assistance allowance if:

(i) the school permits such absence without interruption of the training status, and

(ii) the absence reporting provisions of § 21.3051 are followed in those cases where the course does not lead to a standard college degree.

(9) The death of the eligible person—as of the last date of attendance.

(10) Eligibility for educational assistance was established on the basis of fraudulent information furnished by the applicant or his representative—as of the beginning date of the award.

(11) Treasonable acts or subversive activities—as of the beginning date of the award or the date preceding the commission of the act resulting in forfeiture, whichever is later.

§ 21.3057 Duplication of benefits.

(a) The commencement of a program of education or special restorative training under 38 U.S.C. Ch. 35 shall be a bar to subsequent payment of compensation, dependency and indemnity compensation, or pension based on the death of a parent to an eligible person over the age of 18 by reason of pursuing a course in an educational institution, or to increased rates, or additional amounts, of compensation, dependency and indemnity compensation, or pension because of such a person. (38 U.S.C. 1762(a))

(1) A program of education will be considered to have been commenced within the meaning of this paragraph for the purpose of the finality of election between dependency and indemnity compensation and war orphans' educational assistance when one payment has been made to or for an eligible person or as an administrative allowance. Payment will be considered to have been made for an administrative allowance when the school has submitted a certification of the eligible person's enrollment and/or a monthly certification of training, thereby obligating the Veterans Administration for payment of such allowance, except that

(i) Election of educational assistance which is based on erroneous information furnished by an authorized representative of the Veterans Administration shall

not be considered final and may be rescinded upon the establishment of such evidence.

(2) Except as provided in § 3.707(a)(2) of this chapter, concurrent payment of dependency and indemnity compensation and educational assistance on behalf of an eligible person prior to age 18 or after age 18 if such person prior to the attainment of age 18 became permanently incapable of self support, does not constitute a duplication of benefits. Receipt of dependency and indemnity compensation after an eligible person reaches the age of 18 when based on school attendance is an educational benefit which precludes concurrent payment of educational assistance allowance. Receipt of dependency and indemnity compensation on and after an eligible person's 18th birthday does not bar subsequent election and payment of educational assistance allowance.

(b) Where an eligible person is the person primarily entitled to Bureau of Employees Compensation benefits and a valid election is made for payment of such benefits prior to age 18, the election shall be considered final if made on or after September 13, 1960 and such person shall not thereafter be eligible to receive educational assistance. Where primary entitlement for Bureau of Employees Compensation benefits is vested in the unremarried widow, her election of such benefits shall not bar subsequent payments of educational assistance on behalf of a son or daughter who is an eligible person.

(c) The provisions of § 21.2057 concerning duplication of benefits shall also bar payment of educational assistance allowance under 38 U.S.C. Ch. 35.

§ 21.3067 Overcharges by educational institutions.

(a) The Veterans Administration may disapprove an educational institution for the enrollment of any eligible person or veteran under 38 U.S.C. Chs. 31, 33 and 35, not already enrolled therein, when it is found that such educational institution has charged or received from any eligible person or any veteran any amount in excess of the established charges for tuition and fees which the institution requires similarly circumstanced persons and nonveterans enrolled in the same course to pay. (38 U.S.C. 1734(a)) The provisions of § 21.2067(b) are not for application under 38 U.S.C. Ch. 35.

(b) Any educational institution which has been disapproved under 38 U.S.C. 1634 (§ 21.2067) shall be deemed to be disapproved under 38 U.S.C. Ch. 35 for the enrollment of any eligible person not already enrolled therein. (38 U.S.C. 1734(b))

10. In § 21.3151, paragraphs (a) and (c) are amended to read as follows:

§ 21.3151 Approval of courses.

(a) An eligible person shall receive benefits under 38 U.S.C. Ch. 35 while enrolled in a course of education offered by an educational institution only if the course is approved by the State approving agency for the State where such educational institution is located, or, where appropriate, by the Administrator.

* * * * *

(c) Notwithstanding the provisions of paragraph (b) of this section, the Administrator may approve a specialized course of vocational training leading to a predetermined vocational objective for the enrollment of an eligible person under subchapter IV of 38 U.S.C. Ch. 35, if he finds that such course, either alone or when combined with other courses, constitutes a program of education which is suitable for that person and is requested because of a mental or physical handicap. (38 U.S.C. 1737)

11. Section 21.3153 is added to read as follows:

§ 21.3153 Reimbursement of expenses under Chapter 35, Title 38, United States Code.

(a) *General.* If a State or local agency desires to be paid for rendering the service contemplated by the law, contracts or agreements will, upon submission of a request for a contract together with the information prescribed in paragraph (e) of this section, be negotiated with State agencies to pay for the reasonable and necessary expenses of salary and travel incurred by employees of such agencies in:

(1) Rendering necessary services in ascertaining the qualifications of educational institutions for furnishing courses of training to eligible persons under Veterans Administration regulations, and in the supervision of such educational institutions. Supervision for which reimbursement may be made will consist of those services which are required in determining that the courses are being furnished in accordance with the criteria set forth in the law or prescribed by the State approving agencies pursuant to the law and upon which the original approval was granted, and of those services required in disapproving any courses which fall below the established criteria.

(2) Furnishing any other services in connection with the law as may be requested by the Veterans Administration.

(b) *Reimbursement.* The Chief Benefits Director is authorized to enter into agreements for reimbursement to the extent necessary to fulfill the purpose of paragraph (a) of this section.

(c) *Reimbursable expenses.* Reimbursement may be made from the funds provided in the existing contract with the State approving agency under the provisions of this section. No reimbursement may be authorized for expenses incurred by any individual who is not an employee of the State approving agency.

(1) *Salaries.* Salaries for which reimbursement may be authorized under contract shall not be in excess of the established rate of pay for other employees of the State having comparable or equivalent duties and responsibilities and shall further be limited to the actual salary expense incurred by the State.

(2) *Travel.* Travel expenses for which reimbursement may be authorized under contract shall be determined on the basis of expenses allowable under applicable State laws or travel regulations of the State or agency and shall be for travel actually performed by employees specified under the terms of the reimbursement contract. Reimbursement for travel will be provided only to cover actual expenses for transportation, meals, lodging, and local telephone calls, or the regular per diem allowance in lieu thereof. In claiming reimbursement for travel expenses authorized under the terms of a contract, all claims for such travel expenses must be supported by factual vouchers and all transportation allowances must be supported by detailed claims which can be checked against work assignments in the office of the State approving agency. Reimbursement will be made for expenses of attending out-of-State meetings and conferences only where such travel is performed upon prior approval and at the request of the Director, Compensation, Pension and Education Service.

(3) *Committee assignments.* Reimbursement may also be authorized for the salary and travel of the employee of the State approving agency serving as a designated member of the Regional Office Committee on Educational Allowances (§ 21.2208(d)(3)).

(d) *Nonreimbursable expenses.* (1) Reimbursement will not be provided under reimbursement contracts for:

(i) Expenditures other than salaries and travel of personnel required to perform the services specified in the contract and Veterans Administration regulations.

(ii) Supplies, equipment, printing, postage, telephone services, rentals, and other miscellaneous items or services furnished directly or indirectly.

(iii) Except as provided in paragraph (c)(2) of this section, the salaries and travel of personnel while attending training sessions, or when they are engaged in activities other than: those in connection with the inspection, approval, or supervision of educational institutions; or services rendered as members of a Regional Office Committee on Educational Allowances.

(iv) The supervision of educational institutions which do not have eligible persons enrolled.

(v) Expenses incurred in the administration of an educational program which are costs properly chargeable as tuition costs, such as the development of course material or individual educational programs, teacher training or teacher improvement activities, expenses of coordinators, or administrative costs, such as those involving selection and employment of teachers. (This does not preclude reimbursement for expenses of the State agency incurred in the development of standards and criteria for the approval of courses under the law.)

(vi) Expenses of a State approving agency for inspecting, approving, or supervising courses where such agency is responsible for establishing, conducting, and supervising the courses approved.

(vii) Any expense for supervision or other services to be covered by contract which are already being reimbursed or paid from tuition funds under this law.

(e) *Agency operating plan.* A request by a State approving agency for reimbursement under the law shall be accompanied by the proposed plan of operation and the specific duties and responsibilities of all personnel for which reimbursement of salaries and travel expense is required.

(1) Personnel requirements for which reimbursement is to be provided will be determined on the basis of estimated workloads as agreed upon between the Veterans Administration and the State agency. Such agreements will be subject to constant review and any necessary adjustment.

(2) Workloads will be determined upon three factors:

(i) inspection and approval visits,

(ii) supervisory visits, and

(iii) special visits at request of the Veterans Administration.

(f) *Contract compliance.* Reimbursement under each such contract or agreement shall be conditioned upon compliance with the standards and provisions of the contract and the law. If it is determined that the State has failed to comply with the standards and provisions of the law and with the terms of the reimbursement contract, the Manager or Director shall withhold reimbursement for claimed expenses under the contract. In any instance in which the State takes exception to the regional office action, the matter shall be referred to the Director, Compensation, Pension and Education Service for review.

12. Section 21.3208 is revised to read as follows:

§ 21.3208 Disapproval of courses and discontinuance of educational assistance allowances under 38 U.S.C. Ch. 35.

All provisions of § 21.2208 except paragraph (d) (2) (v) are for application under 38 U.S.C. Ch. 35. Accordingly, any course which has been disapproved by a State approving agency under § 21.2208, other than disapprovals made under paragraph (d) (2) (v) of § 21.2208 shall be considered disapproved for eligible persons under the provisions of 38 U.S.C. Ch. 35.

13. In § 21.3210(d), subparagraphs (1) and (3) are amended to read as follows:

§ 21.3210 Reports by institutions.

* * * * *

(d) *Administrative allowance for preparation of required reports and certifications.* * * *

(1) Where an eligible person is enrolled or reenrolled as defined by § 21.3005(a) (21) on or after the 20th of the month, a separate monthly certification of training for the month of enrollment or reenrollment is not required. (See § 21.3051(f) (1).) Under these circumstances an allowance for the month in which the enrollment or reenrollment occurred may be paid provided the enrollment or reenrollment certification is received promptly but in no event later than the 10th of the following month. Where, as a result of the encouragement given in § 21.2051(c) (2) (ii) (*a*) a school submits a monthly certification which combines a partial month of 10 days or less at the end of a term with the immediately preceding month, an administrative allowance of $1 may be paid for each month covered by the certification. No more than one allowance shall be paid for any one month per eligible person.

* * * * *

(3) Payment of the administrative allowance will be made to the institution by the regional office only upon presentation by the institution of properly prepared vouchers with the certificates of training, except that the Manager or Director may authorize payment of the allowance when the voucher is received subsequent to receipt of the training certificates where the failure to submit the voucher and certificates simultaneously was due to (i) a clerical error, or (ii) a previous understanding between the Manager or Director and the institution that isolated certificates need not be accompanied by vouchers. Also an allowance will be paid upon receipt of properly prepared vouchers showing enrollment or reenrollment as provided in subparagraph (1) of this paragraph.

14. The centerhead immediately preceding § 21.3224 is amended to read as follows: "Special Restorative Training."

15. Sections 21.3224, 21.3225 and 21.3226 are revised to read as follows:

§ 21.3224 Cross references.

The sections listed below are for application to special restorative training:

Sec.
21.3000 Statement of policy.
21.3005 Definitions.
21.3010 Entitlement to educational assistance.
21.3014 Duration of eligible person's entitlement.
21.3016 Age limitations.
21.3017 Election of benefits.
21.3018 Entitlement charges.
21.3030 Applications.
21.3037 Institutions listed by Attorney General.
21.3057 Duplication of benefits.
21.3063 Apportionments of educational assistance allowance.

§ 21.3225 Special restorative training.

(a) Special restorative training may be prescribed where needed to overcome or lessen the effects of a physical or mental disability so as to enable an eligible person to pursue a program of education. Medical care and treatment or psychiatric treatment are not included.

(b) The Vocational Rehabilitation Board may prescribe for special restorative training purposes such courses as speech and voice correction or retention, language retraining, speech (lip) reading, auditory training, Braille reading and writing, training in ambulation, one-hand typewriting, nondominant handwriting, personal, social and work adjustment training, remedial reading, and such other training deemed necessary.

(c) Special restorative training will not be provided in Veterans Administration facilities.

§ 21.3226 Need for special restorative training.

(a) When the case of a handicapped person is referred to the Vocational Rehabilitation Board, because of a request by parent or guardian or upon recommendation of a counselor, the Board will determine whether:

(1) There exists a handicap which will interfere with pursuit of a program of education;

(2) It is in the best interests of an eligible person to begin special restorative training after having reached his 14th birthday;

(3) Upon completion of special restorative training the eligible person should be able to pursue a program of education;

(4) The special restorative training may be pursued concurrently with a program of education;

(5) Training is medically feasible.

(b) Where the Board decides that special restorative training is needed, the counselor with assistance of other specialists will develop a training course suited to the needs and capacities of the eligible person. The Counseling and Training activity will provide the assistance necessary for implementation of the training plans.

(c) Where a parent or guardian has requested special restorative training on behalf of an eligible person and the Board finds that such training is not needed or is not medically feasible, the Counseling and Training activity will inform the parent or guardian of the action taken and of the right to appeal the decision.

(d) When the case of an eligible person is referred for consideration of reentrance into special restorative training following an interruption, the Board will recommend approval if it is found that training is medically feasible and there is reasonable expectation that the purpose of special restorative training may be accomplished.

16. In § 21.3228, that portion of paragraph (b) preceding subparagraph (1) and paragraph (c) are amended to read as follows:

§ 21.3228 Conditions governing payment of special training allowance.

* * * * *

(b) The special training allowance shall be paid only for the period of the eligible person's approved enrollment as certified by the responsible vocational rehabilitation specialist. In no event, however, shall such allowance be paid:

* * * * *

(c) Payment of special training allowance shall be subject to offset of amounts of compensation or pension or dependency and indemnity compensation paid over the same period on behalf of a child based on school attendance.

17. Sections 21.3232 and 21.3234 are revised to read as follows:

§ 21.3232 Effective ending dates of an authorization of a special training allowance.

(a) The ending date of the payment of a special training allowance will be:

(1) The ending date of the course or the ending date of the period of enrollment as certified by the vocational rehabilitation specialist, or the ending eligibility date for expiration of all educational assistance for the eligible person, or the expiration of the eligible person's entitlement, whichever occurs first.

(2) Interruption of course as determined by the vocational rehabilitation specialist under § 21.3233.

(3) As prescribed by § 21.3056 (a) and (b) (7), (9) and (10) under the conditions therein described.

§ 21.3234 Reentrance after interruption.

(a) When a course of special restorative training has been interrupted and the eligible person presents himself for reentrance, action will be taken as follows:

(1) Where special restorative training was interrupted for a scheduled vacation period, for short period of illness or for other reason which does not prevent reentrance in the same course of special restorative training without corrective action, reentrance will be approved.

(2) Where special restorative training was interrupted by reason of failure to maintain satisfactory conduct or progress or for any other reason which requires corrective action, such as change of place of training, change of course, personal adjustment, etc., the case will be referred to the Vocational Rehabilitation Board for action.

(i) If it is determined that the conditions for which interruption action was taken can be overcome, the Board will recommend the means by which adjustment in the case is to be made.

(ii) If all efforts by the Board to bring about proper adjustment in the case meet with failure and the Board determines that adjustment cannot be made, the Board will notify the vocational counseling training and adjustment section that reentrance is denied and that discontinuance action is to be taken. Such discontinuance will preclude any further pursuit of special restorative training under 38 U.S.C. Ch. 35; therefore, action to discontinue should be taken only as a last resort and after all facts lead to the conclusion that there is no warrant to continue special restorative training. In any case of discontinuance the guardian or legal custodian will be notified in writing of the action taken and of his right of appeal. He will also be informed of potential rights to a program of education under subchapter III of chapter 35.

18. In § 21.3236, paragraphs (a) and (c) are amended to read as follows:

§ 21.3236 Authority to make agreements.

(a) The law provides that the Administrator may by agreement arrange with public or private educational institutions or others to provide training arrangements as may be suitable and necessary to accomplish the purpose of subchapter V of 38 U.S.C. Ch. 35.

* * * * *

(c) The Manager, Director, Assistant Manager, Assistant Director and Chief, Vocational Rehabilitation and Education Division, are authorized to enter into agreements in accordance with existing laws, Veterans Administration regulations and policies with public educational or training institutions or individuals in the territory of the regional office for the purpose of providing courses of special restorative training for eligible persons under the provisions of 38 U.S.C. Ch. 35. Each agreement shall contain the same type of information as required for special restorative training contracts under 38 U.S.C. Ch. 31, including the requirement that educational institutions, or others with whom arrangements have been made to provide training, report to the Veterans Administration promptly the enrollment, interruption or termination of the eligible person's course of special restorative training. An educational institution will be paid $1, upon claim by the institution, for any month in which it submits one or more of the above reports required by the Veterans Administration under the terms of the agreement.

19. In § 21.3237, paragraph (a), that portion of paragraph (b) preceding subparagraph (1), and paragraphs (c) and (d) are amended to read as follows:

§ 21.3237 Supervision of the eligible person during special restorative training.

(a) Special restorative training is provided for the purpose of overcoming or lessening the effects of a physical or mental disability which would handicap the eligible person in the pursuit of a program of education. In order that the course of special restorative training will accomplish the purpose intended in a satisfactory manner, there will be close supervision to assure satisfactory progress and when needed proper and timely adjustments. In the process of supervision two factors in particular must be kept in mind:

(1) Unless the course is properly provided both in kind and amount the eligible person's chances for ultimate successful completion of a program of education are jeopardized.

(2) Because all time spent in a course of special restorative training is subtracted from the time the law allows for a program of education, there must not be any waste of time or prolonging of the course of special restorative training beyond that necessary to accomplish the purpose of such training.

(b) Supervision shall as a minimum consist of the following:

* * * * *

(c) When in the process of supervision it is determined that adjustments are needed in the course or in the training situation immediate action will be taken to bring about such adjustments in accordance with the following:

(1) When the eligible person or his instructor indicates dissatisfaction with elements of the program, through personal discussion with the eligible person and/or his instructor, there will be effected if possible a correction of the difficulty through such means as making minor adjustments in the course or by persuading the eligible person to give more attention to performance.

(2) When it develops that there are difficulties of major significance which cannot be corrected a report of all pertinent facts together with recommendations will be prepared and submitted to the Vocational Rehabilitation Board for proper action.

(3) When in process of supervision it is determined that the eligible person is making progress much faster than was anticipated and it is clear that his course may be terminated with satisfactory results short of the time originally planned, action will be taken to terminate the course at the proper time so that the eligible person's entitlement to an educational program may be conserved.

(d) As long as the eligible person is making satisfactory progress toward the established objective of overcoming the effect of his handicap, the eligible person will be continued in his course of training without accounting for days of nonattendance within his authorized enrollment. However, in any instance where the eligible person's progress toward his objective is unsatisfactory or because of his negligence, lack of application or misconduct, his progress is being materially retarded his course of instruction will be interrupted.

20. Sections 21.3300, 21.3301, 21.3302 and 21.3304 are revised to read as follows:

§ 21.3300 Counseling persons eligible for educational assistance (38 U.S.C. Ch. 35).

(a) Counseling is required for each eligible person before an application for educational assistance may be approved. The purpose of counseling will be to assist in selecting an objective, in developing a suitable program of education, and in resolving any personal problems which are likely to interfere with selection or successful pursuit of a program of education.

(b) The counselor will assist in the preparation of an educational plan on the prescribed form, if his assistance is requested. If an educational plan is not prepared during counseling, the eligible person (and, if a minor, the parent or guardian) will be informed that an educational plan must be prepared and submitted before action may be taken on the application.

(c) Counseling will be provided a handicapped person before referral of the case to the Vocational Rehabilitation Board for consideration of need for special restorative training or for a course of specialized vocational training.

(d) When an eligible person completes or discontinues a course of special restorative training without having selected an objective and program of education, additional counseling will be provided to assist in selecting a program of education.

(e) Additional counseling will be required before taking action upon a request for a change of program or for reentrance after discontinuance of a program of education. The counselor will recommend approval of such requests when it is determined through counsel-

ing that there is reasonable expectation that pursuit of a program of education which is suitable for the eligible person will be successful. When a program has been discontinued because of misconduct, reentrance will be recommended when the counselor finds a reasonable basis for assurance that misconduct will not recur. Otherwise, the case will be referred to a committee consisting of the Chief, Vocational Rehabilitation and Education Division, and two representatives of the Vocational Counseling Training and Adjustment Section, for final determination. When a determination is unfavorable, the eligible person (and, if a minor, parent or guardian) will be informed of the right to appeal.

(f) When an eligible person fails to report for required counseling or fails to cooperate in the counseling process, the eligible person (and, if a minor, parent or guardian) will be informed that further action cannot be taken until the eligible person is ready to proceed with counseling.

(g) Additional counseling not required by Veterans Administration regulations may be provided upon request so long as the counselor determines that it will aid the eligible person in obtaining maximum benefit from the pursuit of a program of education.

(h) Travel at government expense to and from the place of counseling may be authorized for an eligible person whenever counseling is required but not when provided on basis of voluntary request alone.

§ 21.3301 Control by agencies of the United States.

(a) The principles set forth in § 21.2301(a) are fully applicable to 38 U.S.C. Ch. 35.

§ 21.3302 Conflicting interests.

(a) Section 1764, Title 38, United States Code provides that:

(a) Every officer or employee of the Veterans' Administration who has, while such an officer or employee, owned any interest in, or received any wages, salary, dividends, profits, gratuities, or services from, any educational institution operated for profit in which an eligible person was pursuing a course of education under this chapter shall be immediately dismissed from his office or employment.

(b) The Administrator may, after reasonable notice and public hearings, waive in writing the application of this section in the case of any officer or employee of the Veterans' Administration, if he finds that no detriment will result to the United States or to eligible persons by reason of such interest or connection of such officer or employee.

(b) Section 1764, Title 38, United States Code applies only to an institution operated for profit and only to a period when at least one eligible person was—or is—enrolled therein under 38 U.S.C. Ch. 35.

(c) Where it is found that a Veterans Administration employee owns or has owned any interest in, or received any wages salary, dividends, profits, gratuities, or services from, any such educational institution, the Manager or Director, in the case of a field station employee, or the responsible Central Office official concerned, in the case of a Central Office employee, will proceed in accordance with the provisions set forth in governing personnel policies respecting conflicting interests under 38 U.S.C. Ch. 33.

(d) Where a request is made to the Administrator for waiver of the application of 38 U.S.C. 1764, with respect to any officer or employee of the Veterans Administration, the Administrator, unless for other valid reasons it is shown that waiver should not be granted, will find that no detriment will result to the United States or to eligible persons by reason of such interest or connection of such officer or employee, provided the employee concerned (1) acquired his interest in such institution by operation of law, or acquired it, or his connection with such institution began, before the statute became applicable to such employee, and such interest has been disposed of and his connection discontinued, or (2) meets all of the following conditions:

(i) His position involves no policy determinations, at any administrative level, having to do with matters pertaining to 38 U.S.C. Ch. 35.

(ii) His position has no relationship with the processing of any eligible person's claim for educational assistance under the law.

(iii) His position precludes him from taking any adjudication action on individual cases under the law.

(iv) His position does not require him to perform duties involved in the investigation of irregular actions on the part of schools or eligible persons in connection with 38 U.S.C. Ch. 35.

(v) His position is not connected with the processing of claims by, or payments to, institutions or students enrolled therein under the provisions of 38 U.S.C. Ch. 35.

(vi) His work is not connected in any way with the inspection, approval, or supervision of institutions desiring to train eligible persons under the provisions of 38 U.S.C. Ch. 35.

(e) Authority is delegated to the Director, Vocational Rehabilitation and Education Service, to grant waivers in the case of any employee who meets the criteria set forth in paragraph (d) of this section and to deny all requests for waivers which do not met such criteria, except those requests which, in the opinion of the Director, Vocational Rehabilitation and Education Service, should be submitted to the Administrator for final decision. The Administrator reserves the right to grant waivers in the case of any employee who does not meet all of the criteria set forth in paragraph (d) of this section, when he determines that no detriment will result to the United States or to eligible persons by reason of the interest or connection of the officer or employee involved.

§ 21.3304 Overpayments to eligible persons and establishment of liability as to school—38 U.S.C. 1766.

(a) *Recovery from the eligible person, parent, or guardian.* The usual collection actions will be instituted against the eligible person, parent, or guardian whenever an overpayment of educational assistance allowance or special training allowance occurs. The right to request waiver of collection set forth in Subpart D, Part 3 of this chapter and the appeal rights of § 19.1 of this chapter will also apply in these cases.

(1) Where an overpayment of benefits has been made to or on behalf of an eligible person under any of the laws administered by the Veterans' Administration, and satisfactory arrangements have not been made for repayment or the overpayment has not been collected, the Benefits and Facilities activity may not enter or reenter the eligible person into training or issue a certificate for a program of education (VA Form 22–5493). Where entry or reentry may not be approved, under the conditions stated, the eligible person, parent, or guardian and the institution will be notified by the Benefits and Facilities activity.

(2) Where an eligible person has been denied education or special restorative training under this paragraph and subsequently makes satisfactory arrangements with the Finance activity to liquidate the outstanding overpayment, the effective date of commencement or recommencement of educational assistance allowance or special training allowance will be determined under § 21.3054.

(b) *General statutory liability.* Whenever the Administrator finds that an overpayment has been made to an eligible person as the result of (1) the willful or negligent failure of an educational institution to report, as required by 38 U.S.C. Ch. 35 and applicable regulations, to the Veterans Administration excessive absences from a course or discontinuance or interruption of a course by the eligible person or (2) false certification by an educational institution, the amount of such overpayment shall constitute a liability of such institution, and may be recovered in the same manner as any other debt due the United States. Any amount so collected shall be reimbursed if the overpayment is recovered from the eligible person. This shall not preclude the imposition of any civil or criminal action under this or any other Act. (38 U.S.C. 1766)

(c) *Application of § 21.2304.* The principles set forth in § 21.2304 are fully applicable with respect to this section of the law.

§ 21.3305 [Revoked]

21. Section 21.3305 *Overpayments of education and training and other Veterans Administration benefits* is revoked.

22. In § 21.3306(b), subparagraphs (1) and (2) are amended to read as follows:

§ 21.3306 Examination of records.

* * * * *

(b) * * *

(1) Records and accounts which are evidence of tuition and fees charged to and received from or on behalf of all eligible persons enrolled under 38 U.S.C. Ch. 35 and from other students similarly circumstanced.

(2) Records of previous education or training of eligible persons enrolled under 38 U.S.C. Ch. 35 at the time of admission as students and records of advance credit,

if any, granted by the institution at the time of admission and

* * * * *

23. Sections 21.3307, 21.3310, and 21.3312 are revised to read as follows:

§ 21.3307 False or misleading statements.

(a) In each case where it is found that an educational institution or other person has willfully submitted a false or misleading claim or where an eligible person with the complicity of an educational institution or other person has submitted such a claim, the Manager or Director shall report the complete facts to the appropriate State approving agency and where deemed advisable to the United States Attorney for appropriate action. Referrals to the United States Attorney shall be made in accordance with existing Veterans Administration regulations by the Chief Attorney if he is of the opinion there is a basis for either civil or criminal action. Any such case may be referred to the General Counsel for consideration as to whether it should be referred to the Department of Justice. If it is determined upon review that referral to the Department of Justice is not warranted or, if after such referral, prosecution is declined by the Department of Justice, the claim will be settled on the basis of the benefits to which the eligible person is actually entitled under applicable regulations.

(1) Where it is determined prior to payment of a claim that the certification is false or misleading, payment shall be made for only that portion of the claim to which the claimant is rightfully entitled.

(2) Where the falsity of a certification or claim is discovered after payment has been released an overpayment shall be set up for only that portion of the claim to which the claimant was not rightfully entitled.

(b) The submission of a claim determined to be false in whole or in part shall not, within itself, constitute a bar to further training provided the provisions of § 21.3304(a) have been satisfied with respect to any overpayment resulting from the claim.

(c) The provisions of paragraphs (a) and (b) of this section are not for application where forfeiture of all rights has been or may be declared under the circumstances outlined in § 3.901 of this chapter. (38 U.S.C. 1768, 3503; Public Law 86-222)

§ 21.3310 Waiver of recovery of overpayments.

All applicable regulatory provisions governing waiver of recovery of overpayments shall be applicable to overpayments of educational assistance allowance or special training allowance under 38 U.S.C. Ch. 35.

§ 21.3312 Audit and review of payments.

Payments under 38 U.S.C. Ch. 35, shall be subject to audit and review by the General Accounting Office as provided by the Budget and Accounting Act of 1921, and the Budget and Accounting Procedures Act of 1950. (38 U.S.C. 1761(a))

(72 Stat. 1114; 38 U.S.C. 210)

These VA regulations are effective the date of approval, except § 21.3153 which will become effective on February 1, 1965.

Approved: May 19, 1964.

By direction of the Administrator.

[SEAL] W. J. DRIVER,
Deputy Administrator.

[F.R. Doc. 64-5186; Filed, May 22, 1964; 8:49 a.m.]

Title 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER N—DANGEROUS CARGOES

[CGFR 64-20]

PART 146—TRANSPORTATION OR STORAGE OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES, AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

Miscellaneous Amendments

Pursuant to the notice of proposed rule making published in the FEDERAL REGISTER of January 30, 1964 (29 F.R. 1572-1586), and the Merchant Marine Council Public Hearing Agenda, dated March 23, 1964 (CG-249), the Merchant Marine Council held a public hearing on March 23, 1964 for the purpose of receiving comments, views and data. The proposals considered were identified as Items I to XVI, inclusive. Item VIII contained proposals regarding dangerous cargo (CG-249, VIII, pages 100 to 137, inclusive). This document is the fourth of a series regarding proposals considered by the Merchant Marine Council. The proposals in Item VIII, as revised, are adopted and set forth in this document.

On the basis of comments received, changes were made in the proposals designated §§ 146.20-16, 146.20-23(g), and 146.20-100 in VIIIf, explosives; in §§ 146.22-15(b) and 146.22-100 in VIIIg, inflammable solids and oxidizing materials; and in § 146.29-55(b) in VIIIj, military explosives. The proposal in VIIIa, hatch covers, was withdrawn in order that the subject may be studied further. The proposal designated § 146.-20-31 (CG-249, page 113) in Item VIIIf, regarding simultaneous handling of explosives and other cargo, was withdrawn for further study because of the objections raised in comments received. The other proposals in Items VIIIb, list of explosives and other dangerous articles and dangerous liquids; VIIIc, special stowage plan for recording dangerous cargo aboard; VIIId, compatibility of dangerous cargoes within vehicles, vans or portable containers; VIIIe, portable magazines for stowage of explosives; and and VIIIh, corrosive liquids, are approved as described in the Agenda.

The provisions of R.S. 4472, as amended (46 U.S.C. 170), require that the land and water regulations governing the transportation of dangerous articles or substances shall be as nearly parallel as practical. The provisions in 46 CFR 146.02-18 and 146.02-19 make the Dangerous Cargo Regulations applicable to all shipments of dangerous cargoes by vessels. The Interstate Commerce Commission in Order Nos. 60 and 62 has made changes in the ICC regulations with respect to definitions, descriptive names, classifications, specifications of containers, packing, marking, labeling, and certification for certain dangerous cargoes, which are now in effect for land transportation. Various amendments to the Dangerous Cargo Regulations in 46 CFR Part 146 have been included in this document in order that these regulations governing water transportation of certain dangerous cargoes will be as nearly parallel as practicable with the regulations of the Interstate Commerce Commission which governs the land transportation of the same commodities. For those changes in 46 CFR Part 146, which involved changes other than shippers' requirements, the proposed amendments were considered at the Merchant Marine Council Public Hearing held on March 23, 1964.

The amendments to 46 CFR Part 146, which were not described in the FEDERAL REGISTER of January 30, 1964 (29 F.R. 1580), are considered to be interpretations of law, or revised requirements to agree with existing ICC regulations, or relaxations of previous requirements, or changes which are editorial in nature, and it is hereby found that compliance with the Administrative Procedure Act (respecting of notice of proposed rule making, public rule making procedure thereon, and effective date requirements thereof) is unnecessary with respect to such changes.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Section 632 in Title 14, U.S. Code, and Treasury Department Orders 120, dated July 31, 1950 (15 F.R. 6521), and 167-14, dated November 26, 1954 (19 F.R. 8026), to promulgate regulations in accordance with the laws cited with the regulations below, the following amendments are prescribed and shall be effective on July 1, 1964; however, the regulations in this document may be complied with in lieu of existing requirements prior to that date.

Subpart 146.02—General Regulations

§ 146.02-2 [Amended]

1. In order to have text agree with § 2.01-13, paragraph (i) of § 146.02-2 *Application to vessels* is amended by inserting after the word "construction" the word "or."

Subpart 146.04—List of Explosives or Other Dangerous Articles Containing the Shipping Name or Description of Articles Subject to the Regulations in This Subchapter

1a. Section 146.04-5 is amended by adding or cancelling certain items as follows:

§ 146.04–5 List of explosives and other dangerous articles and combustible liquids.

Article	Classed as—	Label required [1]
* * *	* * *	* * *
ITEMS ADDED		
Carbon tetrachloride	Haz.	
* * *	* * *	* * *
*Cement, adhesive, N.O.S.	Comb. L.	
*Cement, adhesive, N.O.S.	Inf. L.	Red.
* * *	* * *	* * *
Chloroform	Haz.	
* * *	* * *	* * *
Flexible linear shaped charges, metal clad	Expl. C.	
* * *	* * *	* * *
Hafnium metal, dry (*mechanically produced, finer than 270 mesh particle size*).	Inf. S.	Yellow.
Hafnium metal, dry (*chemically produced, finer than 20 mesh particle size*).	Inf. S.	Yellow.
Hafnium metal, wet (*mechanically produced, finer than 270 mesh particle size*).	Inf. S.	Yellow.
Hafnium metal, wet (*chemically produced, finer than 20 mesh particle size*).	Inf. S.	Yellow.
* * *	* * *	* * *
Lithium ferro silicon	Inf. S.	Yellow.
* * *	* * *	* * *
Lithium hydride in solid forms	Inf. S.	Yellow.
* * *	* * *	* * *
Memtetrahydro phthalic anhydride	Cor. L.	White.
* * *	* * *	* * *
Phosphoric acid	Haz.	
* * *	* * *	* * *
Radioactive material—low activity	Pois. D.	
* * *	* * *	* * *
Tetrachloroethane	Haz.	
* * *	* * *	* * *
Zirconium metal, dry (*mechanically produced, finer than 270 mesh particle size*).	Inf. S.	Yellow.
Zirconium metal, dry (*chemically produced, finer than 20 mesh particle size*).	Inf. S.	Yellow.
Zirconium metal, wet (*mechanically produced, finer than 270 mesh particle size*).	Inf. S.	Yellow.
Zirconium metal, wet (*chemically produced, finer than 20 mesh particle size*).	Inf. S.	Yellow.
* * *	* * *	* * *
ITEMS CANCELED		
Hafnium powder or sponge, dry	Inf. S.	Yellow.
Hafnium powder, wet or sluge	Inf. S.	Yellow.
* * *	* * *	* * *
Zirconium powder or sponge, dry	Inf. S.	Yellow.
Zirconium powder, wet or sludge	Inf. S.	Do.
* * *	* * *	* * *

[1] Unless otherwise exempt by the provisions of the detailed regulations.

Subpart 146.05—Shipper's Requirements re: Packing, Marking, Labeling and Shipping Papers

2. Section 146.05–5 is amended by adding a new paragraph (k) to read as follows:

§ 146.05–5 I.C.C. specification containers.

* * * * *

(k) Where the regulations require ICC–6D or 37M cylindrical steel overpacks, ICC–6J or 37A (single trip container) metal drums manufactured prior to March 18, 1964, having an inside ICC–2S, 2SL, 2T or 2TL polyethylene container, may be continued in use for the commodities and gross weights for which they were previously authorized until further order of the Interstate Commerce Commission.

Subpart 146.06—Vessel's Requirements, re: Acceptance, Handling, Stowage, etc.

3. Section 146.06–12 is amended by deleting all the present text and inserting in lieu thereof:

§ 146.02–12 Dangerous cargo manifest, list or stowage plan required.

(a) Any vessel transporting or storing explosives or other dangerous articles or substances, including a passenger vessel transporting combustible liquids in outside containers, shall, when in navigable waters of the United States, have on board a separate dangerous cargo manifest, list, or stowage plan.

(b) This manifest, list, or stowage plan shall be a form containing spaces for all of the information required. If a vessel elects to show the information with regard to dangerous cargo as required by § 146.06–15 upon either the outward foreign manifest (Customs Form 1374) or the inward foreign manifest (Customs Form 7527 (a) or (b)) and a copy of either of these papers is retained on board the vessel, such procedure, executed in conformance with the requirements of the regulations in this part will be considered as in full compliance: *Provided, however,* That separate sheets shall be allotted for entries of dangerous articles of cargo in order to segregate the record of such substances as are on board the vessel.

(c) The manifest, list or stowage plan aboard the vessel shall be produced upon demand of the Commandant of the Coast Guard or his authorized representative.

(d) Owners, charterers or agents of vessels transporting or storing explosives or other dangerous articles or substances, and combustible liquids, as cargo, shall retain ashore for one year a copy of the dangerous cargo manifest, list or stowage plan and shall produce said manifest or list in accordance with the provisions of § 146.02–22.

§ 146.06–13 [Cancelled]

4. Section 146.06–13 *Form of manifest or list* is cancelled. (The revised text is transferred to § 146.06–12.)

5. Section 146.06–14 is amended by deleting all the present text and inserting in lieu thereof:

§ 146.06–14 Source of information shown on manifest, list or stowage plan.

(a) The information required to appear on a dangerous cargo manifest, list, or stowage plan by the provisions of § 146.06–15(b) and (c) shall be the information actually furnished to the vessel by the shipper of the dangerous substances upon his bill of lading or other shipping paper; and the owner, charterer, agent, master or person under whose supervision the actual preparation of the manifest, list, or stowage plan is made, shall cause the information required to be correctly transcribed.

(b) Every entry made upon the dangerous cargo manifest, list, or stowage plan shall be a true statement to the best knowledge and belief of the master of the vessel. The provisions of this paragraph shall not apply to barges.

(c) The master, shall, by his signature, acknowledge the correctness of the dangerous cargo manifest, list, or stowage plan. The provisions of this paragraph shall not apply to barges.

6. Section 146.06–15 is amended by deleting all the present text and inserting in lieu thereof:

§ 146.06–15 Information required on manifests, lists, or stowage plans.

(a) Vessel owners, charterers, agents, masters or persons in charge of vessels, including barges, shall insure that a separate dangerous cargo manifest, list or stowage plan is prepared for any vessel transporting explosives or other dangerous articles or substances, including passenger vessels carrying combustible liquids in outside containers.

(b) This manifest, list or stowage plan shall show thereon the following information:

(1) Name of vessel and official number.

(2) Nationality of vessel.

(3) True shipping name of the substance as given in the commodity list of the regulations in this part.

(4) Tonnage in bulk shipment or the number and description of packages (such as barrels, drums, cylinders, boxes, etc.) and their gross weight.

(5) Classification of the substances in accordance with the regulations in this part (such as explosive, inflammable liquid, compressed gas, hazardous article, etc.).

(6) Label applied to the package if any required.

(7) The stowage provided for the substance on board the vessel.

§ 146.06–17 [Cancelled]

7. Section 146.06–17 *Produce manifest or list upon demand* is cancelled. (The revised text transferred to § 146.06–12.)

§ 146.06–18 [Cancelled]

8. Section 146.06–18 *Record copy of manifest or list* is cancelled. (The revised text transferred to § 146.06–12.)

§ 146.06–19 [Cancelled]

9. Section 146.06–19 *Cargo stowage plan or cargo stowage list* is cancelled. (The revised text transferred to § 146.06–12.)

Subpart 146.07—Railroad Vehicles, Highway Vehicles, Vans or Portable Containers Loaded With Explosives or Other Dangerous Articles and Transported on Board Ocean Vessels

10. Section 146.07–40 is amended by changing paragraph (b) to read as follows:

§ 146.07–40 Stowage on board vessels.

* * * * *

(b) *Other dangerous articles.* No dangerous articles or substances may be stowed in the same vehicle, van, or portable container with any other article or substance with which it is incompatible according to the regulations in this part. Vehicles, vans or portable containers loaded with any other permitted dangerous article shall be stowed on board the vessel in accordance with the stowages required in the tables for the substances within the vehicles. Such stowages are not feasible in each instance for railroad or highway vehicles, vans, or portable containers stowed below deck on vessels; and, for the purpose of adopting these stowages to the conditions incident to transportation of railroad and highway vehicles, vans, and portable containers in this method of transportation, a conversion table is shown in paragraph (c) of this section. Permitted stowages as shown in Tables A through K for the substances loaded within the vehicles may be converted in accordance with this conversion table. When so converted the stowage in columns 2 and 3 may be utilized in lieu of the stowage indicated under column 1.

* * * * *

Subpart 146.09—Cargo Handling and Stowage Devices, U.S. Coast Guard Container Specifications

11. Section 146.09–6 is amended by changing paragraph (a) to read as follows:

§ 146.09–6 Portable magazines for stowage of explosives.

* * * * *

(a) Portable magazines shall be constructed watertight of wood, or of metal lined with wood ¾-inch minimum thickness. Not more than 100 cubic feet plus 10 percent of explosives (gross) shall be stowed therein.

* * * * *

Subpart 146.20—Detailed Regulations Governing Explosives

12. Section 146.20–11 is amended by changing paragraphs (s), (bb) and (cc) to read as follows:

§ 146.20–11 Class C explosives.

* * * * *

(s) Detonating fuzes, class C explosives, are used in the military service to detonate high explosive bursting charges of projectiles, mines, bombs, torpedoes, grenades, demolition charges, and safety and arming devices. They contain a detonator and a quantity of high explosives. Additionally they may be used by the military or commercial users to transmit a detonation between two or more devices. This type detonating fuze contains either an explosive train consisting of mild detonating fuse, metal clad, igniter fuse, metal clad or similar type fuses, and any combination of one or more boosters, detonators and high explosives in a total quantity not exceeding 25 grams of explosive composition. All detonating fuzes, class C explosives, must be made and packed so that they will not cause functioning of other fuzes, explosives, or other explosive devices if one of the fuzes detonates in a shipping container or in adjacent containers.

* * * * *

(bb) Mild detonating fuses, metal clad and flexible linear shaped charges, metal clad consist of a core containing not more than 2½ grains of high explosive composition per lineal foot, clad with metal either with or without a covering of tapes, yarns, plastics or waterproofing compounds. Mild detonating fuse, metal clad, and, flexible linear shaped charges, metal clad, in lengths not over 26 feet and not exceeding 15 grains per lineal foot having the individual lengths separated from adjacent lengths so that mass propagation will not occur, may be shipped as class C explosives.

(cc) Igniter fuse-metal clad consists of a base metal tube with a core of explosive igniter composition in quantity not exceeding 20 grains per foot.

* * * * *

13. Section 146.20–15 is amended by deleting paragraph (b) and redesignating paragraph (c) as paragraph (b) as follows:

§ 146.20–15 Stowage of explosives.

(a) All articles of cargo classified as explosives by the regulations in this subpart shall be stowed on board a vessel in conformity with the conditions specified for the individual articles as set forth in Tables A, B, and C in §§ 146.20–100, 146.20–200, and 146.20–300. Mixed stowage of explosives with other explosives shall be in conformity with the stowage chart § 146.20–90. Magazine specifications required for stowage of explosives are detailed in subpart 146.09.

(b) Vessels engaged in transfer of explosives between receiving points and delivery points within the harbors, bays, sounds, lakes and rivers including the explosive anchorages on the navigable waters may, when transporting explosives, stow such cargo "On deck in open", "On deck under cover", or "Under deck." Explosives stowed "On deck in open" shall after loading and during transportation be covered by fire-resistant and/or flame-proof tarpaulins securely lashed in place.

14. After § 146.20–15, add a new § 146.20–16 to read as follows:

§ 146.20–16 Stowage of blasting caps and small quantities of other explosives.

(a) The District Commander or the Captain of the Port may approve the stowage of blasting caps or small quantities of explosives in locations other than "Under deck", such as in an isolated compartment, mast or deck house, or in magazines (which may be portable) secured "On deck" provided:

(1) No other stowage is available.

(2) The compartment or area is sheathed with wood.

(3) The location is at least 8 feet from the vessel's side.

(4) The stowage is separated from other incompatible explosives and other dangerous articles by at least a permanent steel deck or bulkhead and a minimum distance of 25 feet. A minimum distance of 10 feet is permitted if two steel decks or bulkheads separate the stowages. On deck, with no steel deck or bulkhead intervening, the separation shall not be less than 40 feet in any direction.

(b) "Under deck" stowage of blasting caps (more than 1000) shall be according to the compatibility requirements for Class A explosives. A minimum distance of 25 feet and a permanent steel bulkhead or deck shall intervene between the stowage of blasting caps and other incompatible explosives.

(c) Blasting caps (1000 or less) being transported with other dangerous cargoes shall be stowed according to the compatibility requirements applicable to Class C explosives.

(d) Stowage of blasting caps in any amount being transported with other explosives shall conform with the compatibility requirements set forth in § 146.20–90, stowage and storage chart for explosives.

15. Section 146.20–23 is amended by changing paragraph (g) to read as follows:

§ 146.20–23 Stowage of explosives with other dangerous articles.

* * * * *

(g) Dynamite, commercial boosters and/or other non-priming noninitiating types of explosives which are compatible with dynamite may be stowed with ammonium nitrate or nitro carbo nitrate as follows if the aggregate is considered Class A explosives:

(1) Stowage of these items in a magazine located in the same or adjacent holds or compartments to ammonium nitrate or nitro carbo nitrate is permitted provided the ammonium nitrate or nitro carbo nitrate is packaged in strong metal cans, metal or fiber drums, barrels, kegs, or wooden or fiberboard boxes with noncombustible inside containers.

(2) These items and ammonium nitrate or nitro carbo nitrate in nonrigid combustible containers may be stowed in proximity if the two are separated by a steel deck or bulkhead or a fire retardant wooden bulkhead built to the specifications of § 146.09–2 sheathed on the oxidizing materials stowage side with one-inch asbestos board. The oxidizing materials must be stowed in accordance with § 146.22–30(f).

* * * * *

16. Section 146.20–90 is amended by changing in the chart column heading No. "3, Initiating or priming explosives, wet, etc.", wherever it appears, to read as follows:

§ 146.20–90 Stowage and storage chart for explosives.

* * * * *

STOWAGE AND STORAGE CHART OF EXPLOSIVES

* * * * *

3 Initiating or priming explosives, wet; diazodinitrophenol, fulminate of mercury, guanyl nitrosamino guanylidene hydrazine, lead azide, lead styphnate, nitro mannite, nitrosoguanidine, pentaerythrite tetranitrate, tetrazene, lead mononitroresorcinate.

§ 146.20–100 [Amended]

17. Section 146.20–100 *Table A—Classification: Class A dangerous explosives* is amended as follows:

A. Amend "High explosives (in dry condition), etc." as follows:

(1) In column 1, delete "Note: Some of the above, etc." and insert in lieu thereof:

NOTE: All of the above substances (except cyclotrimethylene-trinitramine, nitrourea, pentolite, and tetryl) are exempt from specification packaging and magazine requirements when shipped as drugs, chemicals, medicines, or cosmetics in securely closed bottles of a quantity not exceeding 4 oz. in one outside package. Inside bottles must be securely cushioned to prevent breakage. Magazine requirements apply if total gross weight of shipment exceeds 2000 pounds.

§ 146.20–200 [Amended]

18. Section 146.20–200 *Table B—Classification: Class B; less dangerous explosives* is amended as follows:

A. Amend "Propellant explosives (liquid), Class B" as follows:

(1) In column 2, amend the paragraph "Polyethylene drums, etc." to read as follows:

Polyethylene containers are authorized only for liquids that will not react dangerously with the plastic or result in container failure.

(2) In column 2, after "Polyethylene drums, etc." insert the following:

Containers must not be entirely filled. Sufficient interior space must be left vacant to prevent leakage or distortion of containers due to the expansion of the contents from increase of temperature during transit.

(3) In column 4, delete "Metal barrels or drums, etc." and insert in lieu thereof:

Metal barrels or drums (ICC–5B, 6A, 6B, 6C) (17C or 17H, STC), WIC ICC–2S in metal drum or glass lined aluminum carboy, not over 12 gal. cap.

§ 146.20–300 [Amended]

19. Section 146.20–300 *Table C—Classification: Class C; relatively safe explosives* is amended as follows:

A. Amend "Cordeau detonant fuse, etc." as follows:

(1) In column 1, add the following:

Flexible linear shaped charges, metal clad.

(2) In column 2, delete "Mild detonating fuse, etc." and insert the following in lieu thereof:

Mild detonating fuses, metal clad and flexible linear shaped charges, metal clad consist of a core containing not more than 2½ grains of high explosive composition per lineal foot, clad with metal either with or without a covering of tapes, yarns, plastics or waterproofing compounds. Mild detonating fuse, metal clad, and flexible linear shaped charges, metal clad, in lenghts not over 26 feet and not exceeding 15 grains per lineal foot having the individual lengths separated from adjacent lengths so that mass propagation will not occur, may be shipped as class C explosives.

(3) In column 2, delete "Each outside container, etc." and insert the following in lieu thereof:

Each outside container must be plainly marked "CORDEAU DETONANT FUSE—HANDLE CAREFULLY", MILD DETONATING FUSE, METAL CLAD—HANDLE CAREFULLY" or "FLEXIBLE LINEAR SHAPED CHARGES, METAL CLAD—HANDLE CAREFULLY" as the case may be.

(4) In columns 4, 5, 6 and 7, change "Strong fiberboard boxes, etc." to read as follows:

Strong fiberboard boxes not over 75 lb. gr. wt.

B. Amend "Igniter fuse-metal clad" as follows:

(1) In column 2, change "Igniter fuse-metal clad, etc." to read as follows:

Igniter fuse-metal clad consists of a base metal tube with a core of explosive igniter composition in quantity not exceeding 20 grains per foot.

C. Amend "Primers, etc." as follows:

(1) In columns 4, 5, 6 and 7, delete "Small-arms primers may also be shipped, etc." and insert in lieu thereof:

For small arms primers only:
Fiberboard boxes:
(ICC–12B) WIC, not over 5,000 primers in each outside container.
(ICC–23H) WIC, not over 50,000 primers in each outside container.

Subpart 146.21—Detailed Regulations Governing Inflammable Liquids

§ 146.21–65 [Amended]

20. Section 146.21–65 *Limited quantity shipments* is amended as follows:

(1) In paragraph (c), delete "(29) Spirits of nitroglycerin in excess of one percent by weight" and insert in lieu thereof:

(29) Spirits of nitroglycerin exceeding one percent by weight.

§ 146.21–100 [Amended]

21. Section 146.21–100 *Table D—Classification: Inflammable liquids* is amended as follows:

A. Amend the following items as indicated:

1. Acetone, etc.
2. Alcohol, N.O.S., etc.
3. Allyl bromide, etc.
4. Antifreeze compounds, etc.
5. Box toe gum, etc.
6. Butyl acetate, etc.
7. Butyraldehyde
8. Cement, leather, etc.
9. Cigar and cigarette lighter fluid
10. Coal tar distillate, etc.
11. Compounds, cleaning, liquid, etc.
12. Compounds, lacquer, paint, etc.
13. Compounds, tree or weed killing, liquid
14. Crotonaldehyde
15. Crude oil, petroleum, etc.
16. Dimethylamine aqueous solution, etc.
17. Drugs, chemicals, medicines, etc.
18. Ethyl acetate
19. Ethyl methyl ketone, etc.
20. Ethylene dichloride, etc.
21. Heptane
22. Inflammable liquids, N.O.S., etc.
23. Ink, etc.
24. Insecticide, liquid, etc.
25. Isopropyl acetate
26. Lacquer base or lacquer chips, etc.
27. Methyl acetate, etc.
28. Methyl iso-propenyl ketone, inhibited
29. Methyl methacrylate monomer
30. Motor fuel, N.O.S., etc.
31. Oil, etc.
32. Paint, enamel, lacquer, etc.
33. Pentane, etc.
34. Polishes, metal, stove, etc.
35. Pyridine, etc.
36. Resin solution, etc.
37. Road asphalt or tar, liquid, etc.
38. Sodium methylate, alcohol mixture, etc.
39. Solvents, N.O.S., etc.
40. Toluol, etc.
41. Turpentine substitutes, etc.
42. Wet nitrocellulose, colloided, etc.
43. Xylol, etc.

(1) In columns 4, 5, 6 and 7, wherever applicable, under "Steel barrels or drums" delete the following:

(ICC–6J) WIC ICC–2S, polyethylene not over 55 gal. cap.
(ICC–6J, 37A) WIC ICC–2SL, not over 55 gal.

(2) In columns 4, 5, 6 and 7, wherever applicable, after "Steel barrels or drums, etc." insert the following:

Cylindrical steel overpacks:
(ICC–6D) WIC ICC–2S, not over 55 gal. cap.
(ICC–6D, 37M(NRC),) WIC ICC 2SL, not over 55 gal. cap.

B. Amend the following items as indicated:

1. Acetaldehyde, etc.
2. Amyl nitrite
3. Benzene, etc.
4. Collodion
5. Cyclohexane, etc.
6. Diethylamine, etc.
7. Ether, etc.
8. Ethyl formate
9. Ethyl nitrite, etc.
10. Gas drips, hydrocarbon, etc.
11. Hexane
12. Isooctane, etc.
13. Isopentane, etc.
14. Methyl formate
15. Neohexane
16. Propylene oxide
17. Vinylidene chloride, inhibited

(1) In columns 4, 5, 6 and 7, wherever applicable, under "Steel barrels or drums" delete the following:

(ICC–6J) WIC ICC–2S, polyethylene, not over 55 gal. cap.
(ICC–6J, 37A) WIC ICC–2SL, not over 55 gal. cap.

(2) In columns 4, 5, 6 and 7, wherever applicable, after "Steel barrels or durms, etc." insert the following:

Cylindrical steel overpack (ICC–6D) WIC ICC–2S, not over 55 gal.

C. Amend the following items as indicated:

1. Acetaldehyde, etc.
2. Acetone, etc.
3. Alcohol, N.O.S., etc.
4. Allyl bromide, etc.
5. Antifreeze compounds, etc.
6. Benzene, etc.
7. Butyl acetate, etc.
8. Butyraldehyde
9. Cigar and cigarette lighter fluid
10. Coal tar distillate, etc.
11. Collodion

12. Compounds, cleaning, liquid, etc.
13. Crotonaldehyde
14. Crude oil, petroleum, etc.
15. Cyclohexane, etc.
16. Diethylamine, etc.
17. Dimethylamine aqueous solution, etc.
18. Drugs, chemicals, medicines, etc.
19. Ether, etc.
20. Ethyl acetate
21. Ethyl formate
22. Ethyl methyl ketone, etc.
23. Ethylene dichloride, etc.
24. Gas drips, hydrocarbon, etc.
25. Heptane
26. Hexane
27. Inflammable liquids, N.O.S., etc.
28. Ink, etc.
29. Insecticide, liquid, etc.
30. Isooctane, etc.
31. Isopentane, etc.
32. Isopropyl acetate
33. Methyl acetate, etc.
34. Methyl formate, etc.
35. Methyl iso-propenyl ketone, inhibited
36. Methyl methacrylate monomer
37. Motor fuel, N.O.S., etc.
38. Neohexane
39. Oil, etc.
40. Paint, enamel, lacquer, etc.
41. Propylene oxide
42. Pyridine, etc.
43. Sodium methylate, alcohol mixture, etc.
44. Solvents, N.O.S., etc.
45. Toluol, etc.
46. Turpentine substitutes, etc.
47. Vinylidene chloride, inhibited
48. Xylol, etc.

(1) In columns 4, 5, 6 and 7, wherever applicable, delete "Aluminum barrels or drums (ICC–42B, 42C), etc." and insert in lieu thereof:

Aluminum barrels or drums:
(ICC–42B, 42C) not over 110 gal. cap.
(ICC–42H) not over 55 gal. cap.

D. Amend "Alcohol, N.O.S., etc.", as follows:

(1) In columns 4, 5, 6 and 7, under "Fiberboard boxes, WIC, etc." change "(ICC–12P) WIC, etc." to read as follows:

(ICC–12P) WIC ICC–2U, not over 5 gal. cap.

E. Amend the following items as indicated:

1. Amyl nitrite
2. Ethyl nitrite, etc.
3. Pentane, etc.

(1) In column 4, under "Aluminum barrels or drums:", delete "(ICC–42B, 42C), etc." and insert in lieu thereof:

(ICC–42B, 42C, 42H) not over 55 gal. cap.

F. Amend the following items as indicated:

1. Box toe gum, etc.
2. Cement, leather, etc.
3. Compounds, tree or weed killing, liquid.
4. Resin solution, etc.

(1) In columns 4, 6 and 7 delete "Aluminum barrels or drums (ICC–42B, 42C, 42F), etc." and insert in lieu thereof:

Aluminum barrels or drums:
(ICC–42B, 42C) not over 110 gal. cap.
(ICC–42F) not over 50 gal. cap.
(ICC–42H) not over 55 gal. cap.

(2) In column 5, delete "Aluminum barrels or drums (ICC–42B, 42C, 42F), etc." and insert in lieu thereof:

Aluminum barrels or drums:
(ICC–42B, 42C) not over 30 gal. cap.
(ICC–42F) not over 50 gal. cap.
(ICC–42H) not over 55 gal. cap.

G. Amend "Cement, leather, etc." as follows:

(1) In column 1, add the following:

Cement, adhesive, N.O.S.

(2) In column 4, delete "Portable tank (ICC–52 aluminum) etc." and insert in lieu thereof:

Portable tank (ICC–52 aluminum), not over 500 gal. cap.

H. Amend "Compounds, lacquer, paint, etc." as follows:

(1) In columns 4, 5, 6 and 7, delete "Aluminum barrels or drums (ICC–42B, 42C, 42F), etc." and insert in lieu thereof:

Aluminum barrels or drums:
(ICC–42B, 42C) not over 110 gal. cap.
(ICC–42F) not over 50 gal. cap.
(ICC–42H) not over 55 gal. cap.

I. Amend "Gasoline, etc." as follows:

(1) In column 4, delete "Fiberboard boxes, WIC (ICC–12A, 12B), etc." and insert in lieu thereof:

Fiberboard boxes:
(ICC–12A, 12B) WIC not over 65 lb. gr. wt.
(ICC–12B) WIC ICC–2F not over 5 gal. total cap.

J. Amend "Inflammable liquids, N.O.S., etc." as follows:

(1) In columns 4, 6, and 7, under "Outside containers" delete "Fiberboard boxes WIC (ICC–12A, 12B), etc." and insert in lieu thereof:

Fiberboard boxes:
(ICC–12A, 12B) WIC, not over 65 lb. gr. wt.
(ICC–12P) WIC ICC–2U, not over 5 gal. cap.

K. Amend the following items as indicated:

1. Lacquer base or lacquer chips, plastic, etc.
2. Wet nitrocellulose colloided, etc.

(1) In columns 4, 5, 6, and 7, where applicable, delete "Aluminum barrels or drums (ICC–42B, 42C), etc." and insert in lieu thereof:

Aluminum barrels or drums:
(ICC–42B, 42C) not over 490 lb. gr. wt.
(ICC–42H) not over 490 lb. gr. wt.

L. Amend "Paint, enamel, lacquer, etc." as follows:

(1) In column 4, under "Authorized only for liquids having a flashpoint above 20° F." delete the following:

Portable tanks (ICC–52 aluminum) not over 400 gal. cap.

(2) In column 4, after "Cylinders as prescribed for any compressed gas except acetylene" add the following:

Portable tanks (ICC–52 aluminum or magnesium) not over 500 gal. cap.

M. Amend the following items as indicated:

1. Polishes, metal, stove, etc.
2. Road asphalt or tar, liquid, etc.

(1) In columns 4, 5, 6, and 7, delete "Aluminum barrels or drums (ICC–42B, 42C), etc." and insert in lieu thereof:

Aluminum barrels or drums:
(ICC–42B, 42C) not over 110 gal. cap.
(ICC–42F) not over 50 gal. cap.
(ICC–42H) not over 55 gal. cap.

N. Amend "Wet nitrocellulose colloided, etc." as follows:

(1) In column 1, delete "Wet nitrocellulose (must contain at least 30%, etc." and insert in lieu thereof:

Wet nitrocellulose, fibrous (must contain at least 25% by weight of alcohol or a solvent with flashpoint not lower than 30° F.).
Wet collodion cotton, fibrous (must contain at least 30% by weight of alcohol or a solvent with flashpoint not lower than 30° F.).

Subpart 146.22—Detailed Regulations Governing Inflammable Solids and Oxidizing Materials

22. Section 146.22–15 is amended by changing paragraph (b) to read as follows:

§ 146.22–15 Stowage of oxidizing materials with explosives and other dangerous articles.

* * * * *

(b) Ammonium nitrate or nitro carbo nitrate may be stowed with dynamite, commercial boosters and/or other non-priming non-initiating types of explosives which are compatible with dynamite as follows if the aggregate is considered Class A explosives:

(1) Stowage of ammonium nitrate or nitro carbo nitrate located in the same hold or compartment with a magazine containing the explosives mentioned in this paragraph (b) or in holds or compartments adjacent to these explosives is permitted provided the ammonium nitrate or nitro carbo nitrate is packaged in strong metal cans, metal or fiber drums, barrels, kegs, or wooden or fiberboard boxes with non-combustible inside containers.

(2) Ammonium nitrate or nitro carbo nitrate in non-rigid combustible containers may be stowed in proximity to these explosives if the two are separated by a steel deck or bulkhead, or a fire retardant wooden bulkhead built to the specifications of § 146.09–2, sheathed on the oxidizing materials stowage side with one-inch asbestos board. The oxidizing materials must be stowed in accordance with § 146.22–30(f).

* * * * *

§ 146.22–25 [Amended]

23a. Section 146.22–25 *Exemptions for inflammable solids and oxidizing materials* is amended by deleting certain items in paragraph (d) as follows:

* * * * *

Hafnium powder or sponge, dry.
Hafnium powder, wet or sludge.

* * * * *

Zirconium powder or sponge, dry.
Zirconium powder, wet or sludge.

* * * * *

23b. Section 146.22–25 is amended by adding the following items in paragraph (d) in alphabetical sequence:

* * * * *

Hafnium metal, dry.
Hafnium metal, wet.

* * * * *

Lithium ferro silicon

* * * * *

Zirconium metal, dry.
Zirconium metal, wet.

24. Section 146.22–30 is amended by changing paragraphs (a) and (f) and introductory text of paragraph (b)(1) to read as follows:

§ 146.22–30 Authorization to load or discharge ammonium nitrate and ammonium nitrate fertilizers.

(a) Ammonium nitrate, ammonium nitrate fertilizers and fertilizer mixtures packed in paper bags or other combustible containers, except those types exempt by this section, in amounts exceeding the 1,000 pounds test sample required by paragraph (e) of this section shall not be laden on or discharged from any vessel at any point or place in the United States, its territories or possessions not including the Panama Canal Zone, until a permit authorizing such loading or discharging has been obtained by the owner, agent, charterer, master or person in charge of the vessel from the Coast Guard District Commander or his authorized representative. The Coast Guard officer issuing the permit shall satisfy himself that no local regulations or rules will be violated by the issuance of such permit. This permit requirement shall not apply to ammonium nitrate, ammonium nitrate fertilizers and fertilizer mixtures loaded in railroad or highway vehicles offered for transportation on board vessels under the provisions of §§ 146.08–1 thru 146.08–55.

(b) (1) Ammonium nitrate, organic coated, in paper or burlap bags shall be loaded or discharged at facilities so remotely situated from populous areas and/or high value or high hazard industrial facilities, that in the event of fire or explosion, loss of lives and property may be minimized.

* * * * *

(f) Ammonium nitrate formulations shipped in paper or burlap bags shall be stowed in conformity with the following general plan:

(1) Minimum dunnage and sweatboards shall be used in ships' holds to prevent friction or abrasion of bags and to allow for circulation of air and access of water in the event of fire.

(2) The bags may be stowed from side to side, out to sweatboards.

(3) A space of 18 inches shall be provided between transverse bulkheads and the bagged cargo.

(4) An 18-inch athwartship trench shall be provided along the center line of the compartment, continuous from bottom to top.

(5) An 18-inch amidship trench shall be provided running fore and aft from bulkhead to bulkhead.

(6) Bags shall not be stowed closer than 18 inches from the overhead deck beams.

(7) The bags shall be stowed so as to provide vent flues 14 inches square at each corner of the hatch or in way of ventilators, continuous from top to bottom.

(8) Trenching shall be accomplished by alternating the direction of the bags in each tier (bulkheading). The master or person in charge of loading shall determine the amount of bracing and chocking necessary to prevent shifting of the bagged cargo adjacent to trench areas.

25. Section 146.22–40 is amended by changing the introductory text in paragraph (b) to read as follows:

§ 146.22–40 Nitro carbo nitrate.

* * * * *

(b) Nitro carbo nitrate packaged in burlap bags, multi-wall paper bags or other non-rigid combustible containers shall be loaded or discharged at facilities so remotely situated from populous and congested areas and/or high value or high hazard industrial facilities that in the event of fire or explosion, loss of lives and property may be minimized. A permit authorizing such loading or discharging shall be obtained by the owner, agent, charterer, master or person in charge of the vessel from the Coast Guard District Commander or his authorized representative. Stowage shall be in conformity with § 146.22–30(f).

* * * * *

§ 146.22–100 [Amended]

26. Section 146.22–100 *Table E—Classification: Inflammable Solids and Oxidizing Materials* is amended as follows:

A. Amend the following items as indicated:

1. Acetyl benzoyl peroxide, solution, etc.
2. Acetyl peroxide, solution, etc.

(1) In columns 4, 6, and 7, delete "Fiberboard boxes, etc." and insert in lieu thereof:

Fiberboard boxes:
(ICC–12B) WIC, not over 1 gal. cap.
(ICC–12P) WIC ICC–2U, not over 5 gal. cap.

B. Amend "Hafnium powder or sponge, dry, etc." as follows:

(1) In column 1, delete entry and all present text and insert in lieu thereof:

Hafnium metal, dry (in an atmosphere of inert gas, mechanically produced, finer than 270 mesh particle size or chemically produced, finer than 20 mesh particle size)

NOTE 1: Hafnium metal, mechanically produced, coarser than 270 mesh particle size and chemically produced coarser than 20 mesh particle size in strong tight containers is not subject to the regulations in this table.

NOTE 2: Chemically produced signifies produced by means other than attrition or grinding.

NOTE 3: Any product containing 10% or more, particle size specfied, shall be subject to these regulations.

(2) In column 4, under "Outside containers", delete all present text and insert in lieu thereof:

Metal barrels or drums:
(ICC–6A, 6B, 6C) WIMC ICC–2R, not over 150 lb. net wt.
(ICC–17C, 17H, 37A) STC WIMC ICC–2R, not over 150 lb. net wt.

C. Amend "Hafnium powder, wet or sludge, etc." as follows:

(1) In column 1, delete "Hafnium powder, wet or sludge" and insert in lieu thereof:

Hafnium metal, wet (mechanically produced finer than 270 mesh particle size or chemically produced finer than 20 mesh particle size with a minimum of 25% water by weight)

(2) In column 1, after "Shipping containers, etc." add the following:

NOTE 1: Any product containing less than 25% water by weight is considered dry for purposes of these regulations.

NOTE 2: Any product containing 10% or more hafnium metal, particle size specified, shall be subject to these regualtions.

(3) In column 2, add the following:

If the material is to be exposed to freezing weather, antifreeze must be added to keep from freezing.

(4) In column 4, under "Outside containers" delete all present text and insert in lieu thereof:

Metal barrels or drums:
(ICC–6A, 6B, 6C) WIMC ICC–2A not over 10 lb. net wt. ea., total not over 150 lb. net wt.
Wooden boxes:
(ICC–15A, 15B) WIMC ICC–2A not over 10 lb. net wt. ea., total not over 40 lb. net wt.
Wooden kegs (ICC–10A) not over 75 lb. net wt.

D. Under "Lithium hydride, etc." add the following:

(1) In column 1, add:

Lithium ferro silicon.

(2) In column 2, add:

Dark crystalline brittle metallic lumps or powder.
Evolves an inflammable gas when in contact with moisture.
Do not stow with explosives, combustible materials or acids (white label).
Keep cool and dry.

(3) In column 3, add:

Yellow

(4) In column 4, add:

Authorized for lithium ferro silicon only.
Fiber drum (ICC–21C) WIMC not over 5 lb. net wt. ea., not over 400 lb. total gr. wt.

E. Amend the following items as indicated:

1. Ammonium nitrate (organic coated), etc.
2. Ammonium nitrate (no organic coating), etc.,
3. Ammonium nitrate phosphate (no organic coating), etc.
4. Ammonium nitrate carbonate mixtures, etc.
5. Ammonium nitrate mixed fertilizers, etc.

(1) In column 2, delete "Do not stow in the same hold, not in any hold above or below one in which explosives are stowed, etc." and insert in lieu thereof:

Do not stow in the same hold, nor in any hold above or below one in which explosives are stowed except as provided in § 146.22–15(b). The engine and boiler spaces or one complete hold shall intervene between stowages on a horizontal plane.

F. Amend "Nitro carbo nitrate, etc." as follows:

(1) In column 2, delete "Do not stow in the same hold, etc." and insert in lieu thereof:

Do not stow in the same hold or compartment with combustible cargo, explosives (except that nitro carbo nitrate packaged in strong metal cans, metal or fiber drums, barrels, kegs, or wooden or fiberboard boxes with non-combustible inside containers may be stowed in a hold or compartment with a magazine containing dynamite, commercial boosters and/or other non-priming, non-initiating types of explosives which are compatible with dynamite) or acids. Stow away from chlorates.
When shipped in bags:
Do not stow in the same hold, nor in any hold above, below or adjacent to one in which explosives are stowed except as provided for in § 146.22–15(b).

Do not stow in the same hold, nor in any hold above, below or adjacent to one in which inflammable gases (red gas label), inflammable liquids (red label), combustible liquids or corrosive liquids (white label) are stowed.
Stow well away from steam pipes, electrical circuits and other sources of heat.
Do not stow in the same hold with cotton, charcoal or other inflammable solids or oxidizing materials, nor with combustible materials or finely divided substances or powders.
Do not stow in the same hold nor in any hold above, below or adjacent to one in which sulfur in bulk is stowed.
Use minimum of combustible dunnage. (See § 146.22-30(f).)
Remove trash, scrap and spilled material promptly.
Bags must be stowed so as to provide maximum ventilation and access for water in the event of fire (See § 146.22-30(f).).
Hose lines must be connected, laid out, and tested before loading or unloading operations commence.
Smoking, except in designated areas, the use of open lights, welding or burning, or other ignition sources in the hold, or on deck adjoining nitro carbo nitrate material shall be strictly prohibited.
A fire watch shall be provided by the master and stationed in the hold in or from which the material is being loaded or unloaded.
The master or person in charge of loading or unloading the vessel shall insure that the operation is supervised at all times and that all precautions are observed.
When shipped in boxes:
Boxes shall be so stowed as to permit the ready access of water to any fire that might develop.
Containers shall be marked "Nitro carbo nitrate."
In Event of Fire in This Cargo:
Flood with large volume of water.
Do not use steam or other methods of smothering.
Provide maximum ventilation by removing hatch covers, and opening all access openings.

G. Amend "Peracetic acid, etc." as follows:

(1) In column 4, under "Outside containers", add the following:

Authorized for storage on deck only:
Cylindrical steel overpack (ICC-37M) NRC WIC ICC-2SL vented, not over 30 gal. cap.

H. Amend "Peroxides, organic, liquid, N.O.S., etc." as follows:

(1) In column 4, delete "Steel barrels or drums (ICC-5B, 6J, 37A) STC, etc." and insert in lieu thereof:

Cylindrical steel overpacks (ICC-6D, 37M (NRC),) WIC 2S, not over 15 gal. cap.

I. Amend "Sodium peroxide" as follows:

(1) In column 4, under "Outside containers", add the following:

Fiberboard boxes (ICC-12A, 12B) WIMC, not over 65 lb. gr. wt.

J. Amend "Zirconium powder or sponge, dry, etc." as follows:

(1) In column 11, delete entry and all present text and insert in lieu thereof:

Zirconium metal, dry (in an atmosphere of inert gas, mechanically produced finer than 270 mesh particle size or chemically produced finer than 20 mesh particle size).

NOTE 1: Zirconium metal, mechanically produced coarser than 270 mesh particle size and chemically produced coarser than 20 mesh particle size in strong tight containers is not subject to the regulations in this table. *For Zirconium scrap see: "Magnesium scrap, etc."*

NOTE 2: Chemically produced signifies produced by means other than attrition or grinding.

NOTE 3: Any product containing 10% or more, particle size specified, shall be subject to these regulations.

(2) In column 4, under "Outside containers" delete all present text and insert in lieu thereof:

Metal barrels or drums:
(ICC-6A, 6B, 6C) WIMC ICC-2R, not over 150 lb. net wt.
(ICC-17C, 17H, 37A) STC WIMC ICC-2R, not over 150 lb. net wt.

K. Amend "Zirconium power, wet or sludge, etc." as follows:

(1) In column 1, delete "Zirconium powder, wet or sludge" and insert in lieu thereof:

Zirconium metal, wet (mechanically produced finer than 270 mesh particle size or chemically produced finer than 20 mesh particle size with a minimum of 25% water by weight).

(2) In column 1, after "Shipping containers, etc." add the following:

NOTE 1: Any product containing less than 25 percent water by weight is considered dry for purposes of these regulations.

NOTE 2: Any product containing 10 percent or more Zirconium metal, particle size specified, shall be subject to these regulations.

(3) In column 2, add the following:

If the material is to be exposed to freezing weather, antifreeze must be added to keep from freezing.

(4) In column 4, under "Outside containers" delete all present text and insert in lieu thereof:

Metal barrels or drums:
(ICC-6A, 6B, 6C) WIMC ICC-2A not over 10 lb. net wt. ea., total not over 150 lb. net wt.
(ICC-17H, 17C) STC WIMC ICC-2A not over 10 lb. net wt. ea., total not over 150 lb. net wt.
Wooden boxes:
(ICC-15A, 15B) WIMC ICC-2A not over 10 lb. net wt. ea., total not over 40 lb. net wt.
Wooden kegs (ICC-10A) not over 75 lb. net wt.

Subpart 146.23—Detailed Regulations Governing Corrosive Liquids

§ 146.23-100 [Amended]

27. Section 146.23-100 *Table F—Classification: Corrosive liquids* is amended as follows:

A. Amend the following items as indicated:

1. Acids, liquids, N.O.S.
2. Alkaline corrosive battery fluid, etc.
3. Antimony pentachloride solution
4. Boiler compound, liquid
5. Caustic potash, liquid, etc.
6. Chromic acid solution
7. Compounds, cleaning, liquid, etc.
8. Corrosive liquid, N.O.S.
9. Cupriethylene-diamine solution
10. Drugs, chemicals, medicines, etc.
11. Formic acid, etc.
12. Hexamethylene diamine solution
13. Hydriodic acid
14. Sodium aluminate, liquid
15. Water treatment compound, liquid

(1) In columns 4, 5, 6 and 7, wherever applicable, delete "(ICC-5B, 6J, 37A) WIC, (ICC-2S, 2SL) not over 55 gal. cap.

(2) In columns 4, 5, 6 and 7, wherever applicable, before "Rubber drums, etc.", insert the following:

Cylindrical steel overpacks (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap.

B. Amend "Electrolyte (acid) or corrosive battery fluid, etc." as follows:

(1) In columns 4, 5, 6 and 7, under "Steel barrels or drums" delete "(ICC-5B, 6J, 37A) WIC ICC-2S polyethylene, not over 55 gal. cap."

(2) In columns 4, 5, 6 and 7, after "Steel barrels or drums" insert the following:

Cylindrical steel overpacks (ICC-6D, 37M (NRC),) WIC ICC-2S, not over 55 gal. cap.

C. Amend the following items as indicated:

1. Ethyl chloroformate
2. Methyl chloroformate

(1) In column 4, delete "Wooden boxes (ICC-15A, 15B, 15C), etc." and insert in lieu thereof:

Wooden boxes:
(ICC-15A, 15B, 15C) WIC, not over 200 lb. gr. wt.
(ICC-16D) WIC ICC-2SL, not over 15 gal. cap.

D. Amend "Fluosulfonic acid" as follows:

(1) In column 4, delete "Steel barrels or drums (ICC 5A), etc." and insert in lieu thereof:

Steel barrels or drums (ICC-5A, 17F (STC),) not over 55 gal. cap.

E. Amend "Hydrobromic acid" as follows:

(1) In columns 4, 5, 6 and 7, under "For hydrobromic acid not over 49% strength:", delete "Metal drum (ICC-6J) WIC (ICC-2S) not over 55 gal. cap." and insert in lieu thereof:

Cylindrical steel overpack (ICC-6D) WIC ICC-2S, not over 55 gal. cap.

(2) In columns 4 and 7, under "For hydrobromic acid greater than 49% strength but not over 63% strength:" delete "Steel drum (ICC-6J) WIC (ICC-2S polyethylene) not over 55 gal. cap." and insert in lieu thereof:

Cylindrical steel overpack (ICC-6D) WIC ICC-2S, not over 55 gal. cap.

F. Amend the following items as indicated:

1. Hydrochloric (muriatic) acid, etc.
2. Sodium chlorite solution, etc.

(1) In columns 4, 5, 6 and 7, under "Steel barrels or drums" delete "(ICC-5B, 6J, 37A) STC WIC (ICC-2S, 2SL) not over 55 gal. cap." and "(ICC-37A) STC, WIC (ICC-2T, 2TL) not over 15 gal. cap."

(2) In columns 4, 5, 6 and 7, after "Steel barrels or drums, etc." insert the following:

Cylindrical steel overpacks:
(ICC-6D, 37M (NRC),) WIC ICC-2S or 2SL, not over 55 gal. cap.
(ICC-6D, 37M (NRC),) WIC ICC-2T or 2TL, not over 15 gal. cap.

G. Amend "Hydrofluotic acid" as follows:

(1) In column 4, under "Hydrofluoric acid not over 70% strength:" delete the following:

Steel barrels or drums:
(ICC–6J) WIC (ICC–2S, 2SL) not over 55 gal. cap.
(ICC–5B, 37A) STC, WIC (ICC–2T) not over 55 gal. cap.

(2) In column 4, under "Hydrofluoric acid not over 70% strength:", insert the following:

Cylindrical steel overpacks:
(ICC–6D) WIC ICC–2S or 2SL, not over 55 gal. cap.
(ICC–6D, 37M (NRC),) WIC ICC–2T, not over 15 gal. cap.

H. Amend "Hydrofluosilicic acid" as follows:

(1) In column 4, under "Authorized only for hydrofluosilicic acid not exceeding 32% strength:", delete "Metal drums (ICC–6J, 37A), etc." and insert in lieu thereof:

Cylindrical steel overpacks:
(ICC–6D) WIC ICC–2S or 2SL, not over 30 gal. cap.
(ICC–37M) NRC, WIC ICC–2S or 2SL, not over 16 gal. cap.

I. Amend "Hydrogen peroxide, etc." as follows:

(1) In column 4, under "Solution not over 52% strength by weight.", delete "Steel barrels or drums (ICC–6J, 37A), etc." and insert in lieu thereof:

Cylindrical steel overpacks (ICC–6D, 37M) WIC ICC–2S or 2SL, not over 55 gal. cap.

K. After "Isopropyl percarbonate, stabilized" insert the following:

(1) In column 1, insert:

Memtetrahydro Phthalic anhydride

(2) In column 2, insert:

A clear, transparent, slightly viscous liquid.
Colorless to light yellow.
In event of leakage: avoid contact with skin, protect eyes from liquid.
Very toxic.

(3) In column 3, insert:

White.

(4) In column 4, insert:

Stowage:
"On deck protected."
"On deck under cover."
"On deck in open."
"Tween decks."
"Under deck."
Outside containers:
Steel drums:
(ICC–37P) NRC, not over 15 gal. cap.
(ICC–17E) STC, not over 55 gal. cap.
Wooden boxes:
(ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.
Fiberboard box:
(ICC–12A) WIC, not over 65 lb. gr. wt.

(5) In column 5, insert:

Stowage:
"On deck protected."
"On deck under cover."
"On deck in open."
Outside containers:
Steel drums:
(ICC–37P) NRC, not over 15 gal. cap.
(ICC–17E) STC, not over 55 gal. cap.
Wooden boxes:
(ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.
Fiberboard box:
(ICC–12A) WIC, not over 65 lb. gr. wt.

(6) In column 6, insert:

Ferry stowage (AA)
Outside containers:
Steel drums:
(ICC–37P) NRC, not over 15 gal. cap.
(ICC–17E) STC, not over 55 gal. cap.
Wooden boxes:
(ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.
Fiberboard box:
(ICC–12A) WIC, not over 65 lb. gr. wt.

(7) In column 7, insert:

Ferry stowage (BB)
Outside containers:
Steel drums:
(ICC–37P) NRC, not over 15 gal. cap.
(ICC–17E) STC, not over 55 gal. cap.
Wooden boxes:
(ICC–15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.
Fiberboard box:
(ICC–12A) WIC, not over 65 lb. gr. wt.

L. Amend "Sulfuric acid, etc." as follows:

(1) In columns 4, 6 and 7, under "For sulfuric acid of concentration not to exceed 95% (approximately 1.835 specific gravity (66° Baume)):", delete "Steel barrel or drum (ICC–5B, 6J, 37A) etc.", and insert in lieu thereof:

Cylindrical steel overpacks:
(ICC–6D, 37M (NRC),) WIC ICC–2S or 2SL, not over 55 gal. cap.
(ICC–6D, 37M (NRC),) WIC ICC–2T, not over 15 gal. cap.

Subpart 146.25—Detailed Regulations Governing Poisonous Articles

28. Section 146.25–55 is amended by changing paragraph (e)(1) to read as follows:

§ 146.25–55 Exemptions for poisons, Class B.

* * * * *

(e) * * *

(1) In inside glass, earthenware, polyethylene or other nonfragile plastic bottles or jars not over 1 pound capacity each, or metal containers not over 5 pounds capacity each, packed in outside wooden boxes, barrels or kegs, or fiberboard boxes. Net weight of contents in fiberboard boxes shall not exceed 65 pounds, and not more than 100 pounds in wooden boxes, barrels or kegs.

* * * * *

§ 146.25–200 [Amended]

29. Section 146.25–200 *Table H—Classification: Class B; less dangerous poisons* is amended as follows:

A. Amend the following items as indicated:

1. Acetone cyanhydrin
2. Alcohol, allyl, etc.
3. Aldrin mixtures, liquid, etc.
4. Arsenic acid, liquid
5. Arsenic chloride (arsenous), liquid, etc.
6. Arsenical compounds or mixtures, N.O.S. liquid, etc.
7. Carbolic acid (phenol), liquid, etc.
8. Compounds, tree or weed killing, liquid
9. Dinitrobenzol, liquid
10. Dinitrophenol solutions
11. Drugs, chemicals, medicines or cosmetics, N.O.S. (liquid), etc.
12. Insecticide, liquid
13. Mercuric iodide solution
14. Nicotine hydrochloride, etc.
15. Nitrobenzol, liquid, etc.
16. Nitroxylol
17. Poisonous liquids, N.O.S., etc.
18. Sodium arsenite (solution), liquid

(1) In columns 4, 5, 6 and 7, wherever applicable, delete "(ICC–6J, 5B) WIC, etc." and after "Steel barrels or drums", add the following:

Cylindrical steel overpack (ICC–6D) WIC ICC–2S, not over 55 gal. cap.

B. Amend "Arsenical compounds or mixtures, N.O.S. liquid, etc." as follows:

(1) In column 1, add the following:

Bordeaux arsenites, liquid

(2) In column 2, add the following:

Poisonous when taken into the digestive canal as by contaminated food or in the form of vapors through respiratory organs.
Store away from living quarters and foodstuffs.

C. Amend "Beryllium metal powder" as follows:

(1) In column (1), delete the following:

Bordeaux arsenites, liquid.

(2) In column (2), delete "Poisonous when taken, etc." and all following text.

Subpart 146.26—Detailed Regulations Governing Combustible Liquids

§ 146.26–100 [Amended]

30. Section 146.26–100 *Table J—Classification: Combustible liquids,* is amended as follows:

A. Amend "Cement, leather, etc." as follows:

(1) In column 1, add the following:

Cement, adhesive, N.O.S.

Subpart 146.27—Detailed Regulations Governing Hazardous Articles

31. Section 146.27–5 is amended by changing the text to read as follows:

§ 146.27–5 Liquids exempt.

Liquids which liberate vapor susceptible to ignition at a temperature above 150° F. and which possess no other characteristics that are determined by the Commandant to be potentially dangerous to health, life, limb or property, packed in drums, barrels, or other closed containers and offered for transportation on board vessels as cargo, are not subject to the regulations in this part.

§ 146.27–100 [Amended]

32. Section 146.27–100 *Table K—Classification: Hazardous articles* is amended as follows:

A. After "Carbon dioxide, solid, etc." insert the following:

(1) In column 1, insert:

Carbon tetrachloride

(2) In column 2, insert:

Colorless liquid.
Chloroform-like odor.
Vapors 5.3 times heavier than air.
Toxic.
Do not breathe fumes.
Boiling point 170° F.
Keep away from heat and open flame. Stow away from living quarters and foodstuffs. Must be stowed in spaces capable of being ventilated.
Do not stow with explosives, inflammable solids, oxidizing materials, corrosive liquids or cotton.
Containers must be marked "Carbon tetrachloride."

(3) In column 3, insert:

No label required.

(4) In column 4, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks."
"Under deck away from heat."
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for cargo vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC not over 200 lb. gr. wt.
Fiberboard boxes (CFC R 41) WIC not over 90 lb. gr. wt.
Bulk as specifically approved by Commandant.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(5) In column 5, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks."
"Under deck away from heat."
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for passenger vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes, (CFC R 41) WIC, not over 90 lb. gr. wt.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(6) In column 6, insert:

Ferry stowage (AA).
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for ferry vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes (CFC R 41) WIC, not over 90 lb. gr. wt.
Tank motor vehicles complying with ICC motor carrier regulations.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(7) In column 7, insert:

Ferry stowage (BB).
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for car ferries.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes (CFC R 41) WIC, not over 90 lb. gr. wt.
Tank cars complying with ICC rail carrier regulations.
Tank motor vehicles complying with ICC motor carrier regulations.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

B. After "Chloride of lime" insert the following:

(1) In column 1, insert:

Chloroform.

(2) In column 2, insert:

Colorless liquid with characteristic odor.
Vapors 4.3 times heavier than air.
Toxic.
Do not breathe fumes.
Boiling point 142° F.
Keep away from heat and open flame. Stow away from living quarters and foodstuffs.
Must be stowed in spaces capable of being ventilated.
Do not stow with explosives, inflammable solids, oxidizing materials, corrosive liquids or cotton.
Containers must be marked "Chloroform."

(3) In column 3, insert:

No label required.

(4) In column 4, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks."
"Under deck away from heat."
Outside containers:
Any ICC specification container for liquids as shown in the
Class B, less dangerous poisons table (§ 146.25–200) for cargo vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC not over 200 lb. gr. wt.
Fiberboard boxes (CFC R 41) WIC not over 90 lb. gr. wt.
Bulk as specifically approved by Commandant.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(5) In column 5, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks."
"Under deck away from heat."
Outside containers:
Any ICC specification container for liquids as shown in the
Class B, less dangerous poisons table (§ 146.25–200) for passenger vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes, (CFC R 41) WIC, not over 90 lb. gr. wt.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(6) In column 6, insert:

Ferry stowage (AA).
Outside containers:
Any ICC specification container for liquids as shown in the
Class B, less dangerous poisons table (§ 146.25–200) for ferry vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes (CFC R 41) WIC, not over 90 lb. gr. wt.
Tank motor vehicles complying with ICC motor carrier regulations.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(7) In column 7, insert:

Ferry stowage (BB).
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for car ferries.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes (CFC R 41) WIC, not over 90 lb. gr. wt.
Tank cars complying with ICC rail carrier regulations.
Tank motor vehicles complying with ICC motor carrier regulations.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

C. After "Petroleum coke," insert the following:

(1) In column 1, insert:

Phosphoric acid.

(2) In column 2, insert:

Usually shipped in aqueous solutions varying from 50% to 88%.
Odorless, ordinarily has no warning properties.
May cause painful burns.
Do not stow with explosives, inflammable liquids, inflammable solids, oxidizing materials, and any cargo or articles of an organic nature.
Outside containers shall be marked "Phosphoric acid."

(3) In column 3, insert:

No label required.

(4) In column 4, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks."
"Under deck away from heat."
Outside containers:
For concentrations containing over 50% H_3PO_4 by weight:
Metal barrels or drums WIL not over 55 gal. cap.
Stainless steel drums not over 55 gal. cap.
Wooden boxes WIC not over 200 lb. gr. wt.
Fiberboard boxes WIC not over 90 lb. gr. wt.

NOTE: Containers are not specified for concentrations of 50% H_3PO_4 or less, but the officer in charge of loading the vessel shall satisfy himself that they are sufficient in all respects for the purpose intended. He shall refuse any container showing damage, leakage or inability to properly contain the substance.

For any concentration:
Tank cars (ICC–103E–W, 103BW).
Tank motor vehicles with stainless steel or rubber lined tanks.
Bulk as specifically approved by Commandant.

(5) In column 5, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks."
"Under deck away from heat."
Outside containers:
For concentrations containing over 50% H_3PO_4 by weight:

Metal barrels or drums WIL not over 55 gal. cap.
Stainless steel drums not over 55 gal. cap.
Wooden boxes WIC not over 200 lb. gr. wt.
Fiberboard boxes WIC not over 90 lb. gr. wt.

NOTE: Containers are not specified for concentrations of 50% H_3PO_4 or less, but the officer in charge of loading the vessel shall satisfy himself that they are sufficient in all respects for the purpose intended. He shall refuse any container showing damage, leakage or inability to properly contain the substance.

(6) In column 6, insert:

Ferry stowage (AA).
Outside containers:
For concentrations containing over 50% H_3PO_4 by weight:
Metal barrels or drums not over 55 gal. cap.
Stainless steel drums not over 55 gal. cap.
Wooden boxes WIC not over 200 lb. gr. wt.
Fiberboard boxes WIC not over 90 lb. gr. wt.

NOTE: Containers are not specified for concentrations of 50% H_3PO_4 or less, but the officer in charge of loading the vessel shall satisfy himself that they are sufficient in all respects for the purpose intended. He shall refuse any container showing damage, leakage or inability to properly contain the substance.
For any concentration:
Tank motor vehicles with stainless steel or rubber lined tanks.

(7) In column 7, insert:

Ferry stowage (BB).
Outside containers:
For concentrations containing over 50% H_3PO_4 by weight:
Metal barrels or drums WIL not over 55 gal. cap.
Stainless steel drums not over 55 gal. cap.
Wooden boxes WIC not over 200 lb. gr. wt.
Fiberboard boxes WIC not over 90 lb. gr. wt.

NOTE: Containers are not specified for concentrations of 50% H_3PO_4 or less, but the officer in charge of loading the vessel shall satisfy himself that they are sufficient in all respects for the purpose intended. He shall refuse any container showing damage, leakage or inability to properly contain the substance.
For any concentration:
Tank cars (ICC–103E–W, 103BW).
Tank motor vehicles with stainless steel or rubber lined tanks.

D. After "Tankages, etc." insert the following:

(1) In column 1, insert:

Tetrachloroethane.

(2) In column 2, insert:

Colorless liquid with a chloroform-like odor.
Vapors 4.8 times heavier than air.
Toxic.
Do not breathe fumes.
Boiling point 295° F.
Keep away from heat and open flame. Stow away from living quarters and foodstuffs. Must be stowed in spaces capable of being ventilated.
Do not stow with explosives, inflammable solids, oxidizing materials, corrosive liquids or cotton.
Containers must be marked "Tetrachloroethane."

(3) In column 3, insert:

No label required.

(4) In column 4, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks."
"Under deck away from heat."
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for cargo vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC not over 200 lb. gr. wt.
Fiberboard boxes (CFC R 41) WIC not over 90 lb. gr. wt.
Bulk as specifically approved by Commandant.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(5) In column 5, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks."
"Under deck away from heat."
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for passenger vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes (CFC R 41) WIC, not over 90 lb. gr. wt.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(6) In column 6, insert:

Ferry stowage (AA).
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for ferry vessels.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes, (CFC R 41) WIC, not over 90 lb. gr. wt.
Tank motor vehicles complying with ICC motor carrier regulations.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

(7) In column 7, insert:

Ferry stowage (BB).
Outside containers:
Any ICC specification container for liquids as shown in the Class B, less dangerous poisons table (§ 146.25–200) for car ferries.
Also:
Metal barrels or drums (CFC R 40) not over 55 gal. cap.
Wooden boxes, nonspecification WIC, not over 200 lb. gr. wt.
Fiberboard boxes, (CFC R 41) WIC, not over 90 lb. gr. wt.
Tank cars complying with ICC rail carrier regulations.
Tank motor vehicles complying with ICC motor carrier regulations.

NOTE: Containers shall be of a design and constructed of materials that will not react dangerously with nor be be decomposed by the chemical packed therein.

Subpart 146.29—Detailed Regulations Governing the Transportation of Military Explosives and Hazardous Munitions on Board Vessels

33. Section 146.29–35 is amended by changing paragraph (e) to read as follows:

§ 146.29–35 Lights, tools, and portable equipment.

* * * * *

(e) The Captain of the Port may authorize the use of pinch bars of ferrous metal in "breaking out" or stowing unfuzed bombs, large caliber separate loading projectiles, and packages of ammunition shipped in heavy unit weight containers. He may also permit the use of saws and hammers that are actually powered by the hand or hand and arm, in the hold of a vessel when necessary in fitting dunnage or constructing a partition or a division bulkhead or installing protection required for the stowage of military explosives. The Captain of the Port may authorize spark proof electrically powered or pneumatic saws or hammers, but they shall not be used in any compartment containing military explosives.

* * * * *

34. Section 146.29–55 is amended by changing the text to read as follows:

§ 146.29–55 Stowage of military explosives in holds containing household or personal effects and/or mail as cargo.

(a) Unless expressly authorized by the Commandant of the Coast Guard, military explosives shall not be stowed in a hold containing household or personal effects and/or mail as cargo, nor in the hold above or below the hold containing any of these items.

(b) Military explosives may be stowed in a compartment or hold adjacent to one containing household or personal effects. However, if the explosives are stowed up to or against the intervening permanent bulkhead, a buffer consisting of at least three feet of non-dangerous cargo shall be placed between the household or personal effects or mail and the permanent bulkhead intervening between this stowage and the explosives. If non-dangerous cargo is not available for this purpose, a division bulkhead shall be erected to provide an air space of at least one foot wide between the household or personal effects, or mail, and the intervening permanent bulkhead.

(c) This section shall not apply to vessels having on board military explosives of Coast Guard Class I category only.

35. Section 146.29–97 is amended by deleting paragraph (b) (2), and redesignating (b) (3) and (4) as (b) (2) and (3) respectively, as follows:

§ 146.29–97 Statements of characteristic properties and hazards.

(a) In § 146.29–100 there are statements in italics setting forth certain characteristics and hazards of the sub-

stances or articles listed therein. It is not intended, nor shall it be assumed, that these statements set forth all of the characteristic properties or hazards of the particular substance or article and such statements as are shown are informative only.

(b) For the purpose of the regulations in this subpart Army Class XII explosives are treated as follows:

(1) Ammonium nitrate is classified as an oxidizing material.

(2) Wet nitrocellulose wet with 20 percent of water is classified as a flammable solid.

(3) Wet nitrocellulose wet with 30 percent of alcohol or flammable solvent is classified as a flammable liquid.

§ 146.29–100 [Amended]

36. Section 146.29–100 *Classification, handling and stowage chart* is amended as follows:

A. Amend "II B" as follows:

(1) In column 2, after "Cartridges, blank, saluting" insert:

Cartridges, fixed and semifixed, with smoke projectiles (other than HC).

B. Amend "II C" as follows:

(1) In column 2, after "Fusee, warning, railroad" insert:

Grenade, hand or rifle, colored smoke (other than HC).

(2) In column 2, after "Salutes" insert:

Separate loading smoke projectiles (other than HC) when assembled with or without ejection charges and/or fuze.

C. Amend the following items as indicated:

1. III.
2. VI.

(1) In column 6, delete "Ammunition stowage, special stowage, etc." and insert in lieu thereof:

Ammunition stowage, special stowage, or portable magazine.

D. Amend "VIII" as follows:

(1) In column 6, delete "Magazine stowage 'A', special stowage, etc." and insert in lieu thereof:

Magazine stowage "A", special stowage or portable magazine.

E. Amend "IX–A" as follows:

(1) In column 6, delete "Magazine stowage 'A' " and insert in lieu thereof:

Magazine stowage "A" or portable magazine stowage.

F. Amend "X–B" as follows:

(1) In column 6, delete paragraph "Class X–B items shall not be stowed, etc."

(R.S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U.S.C. 375, 416, 170. Interpret or apply sec. 3, 68 Stat. 675; 50 U.S.C. 198; E.O. 10402, 17 F.R. 9917, 3 CFR 1952 Supp. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, November 26, 1964, 19 F.R. 8026)

Dated: May 19, 1964.

[SEAL] E. J. ROLAND,
Admiral, U.S. Coast Guard,
Commandant.

[F.R. Doc. 64–5182; Filed, May 22, 1964; 8:48 a.m.]

Chapter II—Maritime Administration, Department of Commerce

SUBCHAPTER G—EMERGENCY OPERATIONS

[General Order 75, 2d Rev., Amdt. 4]

PART 308—WAR RISK INSURANCE

Miscellaneous Amendments

Effective as of midnight, June 7, 1964, G.m.t., part 308 is hereby amended to reflect the following changes:

Amend § 308.6 *Period of interim binders and renewal procedure,* § 308.106 *Standard form of war risk hull insurance interim binder and optional disbursements insurance endorsement,* § 308.206 *Standard form of war risk protection and indemnity insurance interim binder,* and § 308.305 *Standard form of Second Seamen's war risk insurance interim binder,* by changing the expiration date contained therein to read "midnight, December 7, 1964, G.m.t."

(Sec. 204, 49 Stat. 1987, as amended; 46 U.S.C. 1114)

Dated: May 19, 1964.

By order of the Maritime Administrator.

JOHN M. O'CONNELL,
Assistant Secretary.

[F.R. Doc. 64–5172; Filed, May 22, 1964; 8:47 a.m.]

Title 50—WILDLIFE AND FISHERIES

Chapter I—Bureau of Sport Fisheries and Wildlife, Fish and Wildlife Service, Department of the Interior

PART 32—HUNTING

Wildlife Refuges in Tennessee

The following special regulations are issued and are effective on date of publication in the FEDERAL REGISTER.

§ 32.22 Special regulations; upland game; for individual wildlife refuge areas.

TENNESSEE

REELFOOT NATIONAL WILDLIFE REFUGE

Public hunting of upland game on the Reelfoot National Wildlife Refuge, Tennessee, is permitted only on the area designated by signs as open to hunting. This open area, comprising 1,000 acres or 10 percent of the total area of the refuge, is delineated on a map available at the refuge headquarters and from the office of the Regional Director, Bureau of Sport Fisheries and Wildlife, 809 Peachtree-Seventh Building, Atlanta, Georgia, 30323. Hunting shall be subject to the following conditions:

(a) Species permitted to be taken: Raccoon.

(b) Open season: September 28, 1964, through October 10, 1964, excluding Sunday, October 4, 1964. Hours: 7:00 p.m. until 12:00 p.m.

(c) Daily bag limit: Not limit.

(d) Methods of hunting:

(1) Use of dogs and gun.

(2) No axes, saws, or other cutting implements will be permitted.

(e) Other provisions:

(1) The provisions of this special regulation supplement the regulations which govern hunting on wildlife refuge areas generally which are set forth in Title 50, Code of Federal Regulations, Part 32.

(2) A Federal permit will not be required to enter the public hunting area. Hunters must check in and check out each night. Location of checking station may be obtained from Refuge Manager, Reelfoot National Wildlife Refuge, Samburg, Tennessee.

(3) The provisions of this special regulation are effective to October 11, 1964.

TENNESSEE

LAKE ISOM NATIONAL WILDLIFE REFUGE

Public hunting of upland game on the Lake Isom National Wildlife Refuge, Tennessee, is permitted only on the area designated by signs as open to hunting. This open area, comprising 1,850 acres or 100 percent of the total area of the refuge, is delineated on a map available at the refuge headquarters and from the office of the Regional Director, Bureau of Sport Fisheries and Wildlife, 809 Peachtree-Seventh Building, Atlanta, Georgia, 30323. Hunting shall be subject to the following conditions:

(a) Species permitted to be taken: Raccoon.

(b) Open season: September 28, 1964, through October 10, 1964, excluding Sunday October 4, 1964. Hours: 7:00 p.m. until 12:00 p.m.

(c) Daily bag limits: No limit.

(d) Methods of hunting:

(1) Use of dogs and gun.

(2) No axes, saws, or other cutting implements will be permitted.

(e) Other provisions:

(1) The provisions of this special regulation supplement the regulations which govern hunting on wildlife refuge areas generally which are set forth in Title 50, Code of Federal Regulations, Part 32.

(2) A Federal permit will not be required to enter the public hunting area. Hunters must check in and check out each night. Location of checking station may be obtained from Refuge Manager, Reelfoot National Wildlife Refuge, Samburg, Tennessee.

(3) The provisions of this special regulation are effective to October 11, 1964.

TENNESSEE

REELFOOT NATIONAL WILDLIFE REFUGE

Public hunting of upland game on the Reelfoot National Wildlife Refuge, Tennessee, is permitted only on the area designated by signs as open to hunting. This open area, comprising 9,092 acres or 92 percent of the total area of the refuge, is delineated on a map available at the refuge headquarters and from the office of the Regional Director, Bureau of Sport Fisheries and Wildlife, 809 Peachtree-Seventh Building, Atlanta, Georgia, 30323. Hunting shall be subject to the following conditions:

(a) Species permitted to be taken: Gray and fox squirrel; crow; woodchuck; and gray fox.

(b) Open season: September 14, 1964 through September 19, 1964 and September 28, 1964 through October 3, 1964.

(c) Daily bag limits: Squirrel—6; woodchuck—no limit; crow—no limit; and gray fox—no limit.

(d) Methods of hunting:

(1) Rifles—22 caliber, or shotguns incapable of holding more than three shells may be used.

(2) No dogs permitted.

(e) Other provisions:

(1) The provisions of this special regulation supplement the regulations which govern hunting on wildlife refuge areas generally which are set forth in Title 50, Code of Federal Regulations, Part 32.

(2) A Federal permit is required to enter the public hunting area. Permits may be obtained from the Refuge Manager, Reelfoot National Wildlife Refuge, Samburg, Tennessee, starting September 7, 1964.

(3) The provisions of this special regulation are effective to October 4, 1964.

TENNESSEE

LAKE ISOM NATIONAL WILDLIFE REFUGE

Public hunting of upland game on the Lake Isom National Wildlife Refuge, Tennessee, is permitted only on the area designated by signs as open to hunting. This open area, comprising 1,850 acres or 100 percent of the total area of the refuge, is delineated on a map available at the refuge headquarters and from the office of the Regional Director, Bureau of Sport Fisheries and Wildlife, 809 Peachtree-Seventh Building, Atlanta, Georgia, 30323. Hunting shall be subject to the following conditions:

(a) Species permitted to be taken: Gray and fox squirrel; crow; woodchuck; and gray fox.

(b) Open season: September 14, 1964, through September 19, 1964 and September 28, 1964 through October 3, 1964.

(c) Daily bag limits: Squirrel—6; woodchuck—no limit; crow—no limit; and gray fox—no limit.

(d) Methods of hunting:

(1) Rifles—22 caliber, or shotguns incapable of holding more than three shells may be used.

(2) No dogs permitted.

(e) Other provisions:

(1) The provisions of this special regulation supplement the regulations which govern hunting on wildlife refuge areas generally which are set forth in Title 50, Code of Federal Regulations, Part 32.

(2) A Federal permit is required to enter the public hunting area. Permits may be obtained from the Refuge Manager, Reelfoot National Wildlife Refuge, Samburg, Tennessee, starting September 7, 1964.

(3) The provisions of this special regulation are effective to October 4, 1964.

JOHN D. FINDLAY,
Acting Regional Director, Bureau of Sport Fisheries and Wildlife.

[F.R. Doc. 64-5183; Filed, May 22, 1964; 8:48 a.m.]

Chapter II—Bureau of Commercial Fisheries, Fish and Wildlife Service, Department of the Interior

SUBCHAPTER F—AID TO FISHERIES

PART 251—CHARTER LOAN PROCEDURES

Section 9 of the Commercial Fisheries Research and Development Act of 1964 (Public Law 88-309), approved on May 20, 1964, authorized the Secretary of the Interior, under such terms and conditions and pursuant to regulations prescribed by him, to make loans to commercial fishermen for the purpose of chartering fishing vessels pending the construction or repair of vessels lost, destroyed or damaged by the earthquake of March 27, 1964, and subsequent tidal waves related thereto. These loans must be made promptly if they are to be of use during the coming fishing season. As these regulations do not provide penalties to the general public and will assist persons qualifying to obtain financial assistance, they will be adopted without the customary notice of proposed rule making. To implement the authorization granted in section 9 of the above-mentioned Act, the following regulations, constituting a new Part under Subchapter F, are adopted and become effective at the beginning of the calendar day on which they are published in the FEDERAL REGISTER.

Sec.

AUTHORITY: The provisions of this Part 251 issued under sec. 4, 70 Stat. 1121; 16 U.S.C. 742c and Public Law 88-309.

§ 251.1 Definition of terms.

For the purposes of this part, the following terms shall be construed, respectively, to mean and to include:

(a) *Secretary.* The Secretary of the Interior or his authorized representative.

(b) *Commercial fisherman.* An individual, partnership or corporation that owned and operated a vessel engaged in catching fish or shellfish during 1963, which vessel was lost, destroyed or damaged in the earthquake of March 27, 1964, and subsequent tidal waves related thereto.

(c) *Charter.* Charter means a bareboat or demise charter, the terms and provisions of which shall be satisfactory to the Secretary.

§ 251.2 Purpose.

The purpose of section 9 of the Commercial Fisheries Research and Development Act of 1964 (the Act) is to offer immediate assistance in the restoration of the fishing fleet which was severely damaged by the earthquake of March 27, 1964, and subsequent tidal waves related thereto. This assistance will consist of short-term loans to enable fishermen, pending the construction or repair of fishing vessels lost, destroyed or damaged as a result of such catastrophe, to bareboat charter vessels for fishing.

§ 251.3 Interpretation of loan authorization.

The terms used in the Act to describe the purposes for which loans may be granted are construed to be limited to the meanings ascribed in this section.

(a) Chartering fishing vessels: The words "chartering fishing vessels" mean the making of bareboat charters for such time as may be required, for operations in the fishery in which the applicant was engaged during 1963, until the damaged vessel can be repaired or the lost or destroyed vessel replaced.

(b) Net profits of the operations of such chartered vessels: The words "net profits of the operations of such chartered vessels" mean the net profits computed in accordance with generally accepted accounting practices with due regard to the customs and usage in the locality in which the fishing operation is conducted.

(c) Such reasonable amount as determined by the Secretary for the salary of the fishermen chartering such vessels. The words "such reasonable amount as determined by the Secretary for the salary of the fishermen chartering such vessels" mean the average income of the borrower from operations of the damaged, destroyed or lost vessel during the calendar years 1961, 1962, and 1963, with a maximum of $4,000 per annum, computed from borrower's income tax returns for said years.

(d) All terms used in Section 4 of the Fish and Wildlife Act of 1956, as amended, applicable hereto shall be as defined in Part 250 of this subchapter. In the event of an inconsistency between the provisions of Part 250 of this subchapter and this Part 251, the latter shall control.

§ 251.4 Qualified loan applicants.

Any citizen of the United States meeting the criteria of this section may be considered a qualified loan applicant.

(a) Any commercial fisherman having a vessel, damaged during the aforementioned earthquake and the subsequent tidal waves related thereto, repaired and such repairs cannot be completed in time to commence fishing operations.

(b) Any commercial fisherman having a vessel, lost or destroyed, whether actually or constructively, during the aforesaid earthquake and tidal waves, replaced and such replacement cannot be obtained in time to commence fishing operations.

(c) Proof of loss, destruction or damage to the vessel and evidence of pending replacement or repair thereof must be furnished to the Secretary at the time the application for the loan is filed.

§ 251.5 Basic limitations.

The basic limitations shall be the same as in § 250.5 of this subchapter.

§ 251.6 Use of loan funds.

The use of the loan funds are restricted to the payment of charter hire when due, until which time the Secretary will hold any balance of funds in escrow. Charter hire is construed to include delivery and redelivery of the vessel.

§ 251.7 Repayment.

Repayment shall be made on or before the maturity date of the note, executed in connection with the loan and, subject to the proviso set forth herein, be required only from the net profits of the operations of the chartered vessel reduced by and in the manner set forth in § 251.3(c). If the aforesaid net profit as so reduced is not equal to the amount of loan repayment due, the amount of such net profit shall be applied in full satisfaction of the note; provided, however, that if the borrower fails to replace or repair, as the case may be, the lost, destroyed or damaged vessel, to the satisfaction of the Secretary, then the interest rate on the loan shall be 5 percent, computed from the date of the execution of the note, and the entire amount of the note shall be due and payable at maturity without respect to net profit.

§ 251.8 Application.

Any citizen desiring a loan under this part shall make application to the Bureal of Commercial Fisheries, Fish and Wildlife Service, Department of the Interior, Washington, D.C., 20240, on a loan application form furnished by the Bureau, except that in the discretion of the Secretary, an application made on other than the prescribed form may be considered if the application contains information deemed to be sufficient.

§ 251.9 Processing of applications.

Applications shall be processed as in § 250.7 of this subchapter.

§ 251.10 Approval of loans.

The approval of loans shall be in the same manner as is set forth in § 250.8 of this subchapter.

§ 251.11 Interest.

The rate of interest on all loans which may be charged under the Act (subsection 4(e) of the Fish and Wildlife Act of 1956, as amended (16 U.S.C. 742c)) is fixed at three percent (3%) per annum, except as otherwise provided in § 251.7.

§ 251.12 Maturity.

The period of maturity of any loan which may be granted shall not be longer than 30 days after the termination date of the charter.

§ 251.13 Security.

The loans shall be approved only upon the furnishing of evidence that the past earnings record of the applicant provides reasonable assurance of repayment and the furnishing of any other security required by the Secretary.

§ 251.14 Books, records and reports.

The right of the Secretary to inspect books, records and reports shall be the same as is set forth in § 250.12 of this subchapter.

§ 251.15 Insurance required.

The owner will carry such insurance as may reasonably be necessary to protect the owner and charterer. Premium charges will be included in the charter hire.

§ 251.16 Disclaimer.

No acts performed by the Secretary in the investigation of the loan application or otherwise shall constitute the Secretary as an agent for an owner or charterer and the Secretary does not warrant or represent to any owner or charterer the performance or observance of any obligations of a charterer or owner under any charter or otherwise.

§ 251.17 Penalties on default.

The penalties on default shall be as set forth in § 250.14 of this subchapter.

STEWART L. UDALL,
Secretary of the Interior.

MAY 21, 1964.

[F.R. Doc. 64-5225; Filed May 22, 1964; 8:51 a.m.]

Proposed Rule Making

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

[7 CFR Part 989]

[Docket No. AO 198–A 5]

RAISINS PRODUCED FROM GRAPES GROWN IN CALIFORNIA

Notice of Recommended Decision and Opportunity To File Written Exceptions With Respect to Proposed Amendment of Marketing Agreement, as Amended, and Order, as Amended

Pursuant to the applicable rules of practice and procedure governing proceedings to formulate marketing agreements and marketing orders (7 CFR Part 900), notice is hereby given of the filing with the Hearing Clerk, United States Department of Agriculture, of this recommended decision with respect to the proposed amendment of the marketing agreement, as amended, and Order No. 989, as amended (7 CFR Part 989), regulating the handling of raisins produced from grapes grown in California (hereinafter collectively referred to as the "order"). The order is effective pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (Secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674), hereinafter referred to as the "act", and any amendment which may result from this proceeding also will be effective pursuant to the act.

Interested persons may file written exceptions to this recommended decision with the Hearing Clerk, U.S. Department of Agriculture, Room 112, Administration Building, Washington, D.C., 20250, not later than the close of business on the 14th day after publication of this recommended decision in the FEDERAL REGISTER. Exceptions should be filed in quadruplicate.

Preliminary statement. The public hearing on the record of which the proposed amendment is formulated was held in Fresno, California, on March 11 and 12, 1964. Notice of the hearing was published in the FEDERAL REGISTER on February 29, 1964 (29 F.R. 2892). The proposals in the notice of hearing were submitted by the Raisin Administrative Committee (hereinafter referred to as the "committee"), the agency established pursuant to the order to administer the terms and provisions thereof.

Material issues. The material issues presented on the record of the hearing involve amendatory action relating to:

(1) The extent to which producers and groups of producers may sort and clean their unstemmed raisins without being deemed packers under the order;

(2) The deletion of the requirement that the committee defer, for a period of time, action on any marketing policy or percentage recommendation of the Raisin Advisory Board;

(3) The establishment of an off-grade raisin pool;

(4) Authority for, and control of, the disposition of off-grade raisins and raisin residual material in non-normal outlets;

(5) The authority for the committee to incur expenses;

(6) The payment of assessments by certain handlers who recondition raisins; and

(7) The making of such changes in the order as are necessary to bring the entire order, as proposed to be amended, into conformity with the amendatory action resulting from the hearing.

Findings and conclusions. The findings and conclusions on the aforementioned material issues, all of which are based on the evidence adduced at the hearing and the record thereof, are as follows:

(1) The first proviso in the definition of "packer" in § 989.14 should be revised so that the act by a producer of cleaning with water the raisins produced by him, which are in unstemmed form, would not cause him to be subject to the order as a packer on account of such cleaning. Under the present definition a producer is deemed to be a packer, with respect to raisins produced by him, if, for example, he cleans such raisins with water. As demonstrated this season, high moisture natural condition raisins cleaned by dehydrators either by spraying the raisins with water, immersing them in water, or both, prior to dehydration were in the main materially improved through reduction of defects. This activity should not continue to be denied producers by causing any produced engaging in it to be deemed a packer. Employing proper methods and procedures in cleaning raisins with water could improve the wholesomeness of raisins delivered to the packer, enable the produced to effect a saving in washing and drying costs on his off-grade raisins relative to the amount being charged by dehydrators and packers, and make possible prompt reconditioning by the producer of his raisins damaged by rain. Packers' facilities at the harvest season are being used to capacity to process standard quality raisins and the packers cannot be expected to engage in reconditioning in substantial volume at that time. At the same time the availability of dehydrators' facilities may be inadequate for drying substantial volumes of raisins as well as dehydrating grapes. The evidence is that some washing could be done without damaging the raisins or causing the raisins to exceed incoming moisture limits. If such limits are exceeded, the producer would need to dry the raisins himself, or have them dried by a dehydrator or packer. Under the order only raisins meeting moisture requirements and which otherwise are standard raisins may be acquired and would be satisfactory for reserve or surplus pooling purposes. The current definition of "packer" does not permit a producer to stem raisins without being deemed a packer because of such activity. Moreover, packers are permitted to return only unstemmed raisins to producers. Thus, any permissive cleaning with water by a producer should be limited to his raisins in unstemmed form.

The first proviso in the definition of "packer" should be further revised so that any group of producers may sort or clean (with or without water) raisins produced by the members comprising the group without being deemed a packer on account of such actions. In this way, such a group could, without being considered a packer and prior to delivery of natural condition raisins to packers, perform the same, but no more, operations on its members' raisins to improve the wholesomeness and quality thereof by defect removal to the same extent currently, and as proposed to be, permitted any producer. This is desirable for the same reasons as support the permitting of any producer to perform these activities on his unstemmed raisins. An additional reason is that, by joining together to operate equipment and perform the permissible operations or activities on the unstemmed raisins of the individual members of the group, the members would share in the costs involved and thus could reduce the expenditures that would be required if the individual producers operated separately. The equipment could include, for example, shakers, belts, washing equipment, and drying equipment, but not stemming equipment. Since the necessary equipment could require a rather large financial outlay and may not be used each year, spreading the financial burden over a group of producers could encourage more producers similarly to sort and clean their natural condition raisins, thereby improving the quality of raisins delivered to packers.

Since, under the proposed revisions, a group of producers would be accorded the same privilege as to certain operations on natural condition raisins as would be accorded the individual producers thereof without becoming packers under the order, the operations permitted to be performed by the group should involve only the raisins of the producer members. To permit otherwise would be to extend to the group a greater privilege than afforded the members individually. In other words, since a producer is deemed a packer if he sorts or cleans raisins other than of his own production, any group of such producers should similarly be deemed if its activities should extend beyond its members' raisins. Thus, should the group perform any of the packer functions on raisins of nonmembers, it would be a packer. Also, the group would be a packer should it, with respect to raisins of its members, stem or seed the raisins, clean stemmed raisins with water, grade stemmed raisins, or package raisins for market as raisins.

As a packer, the group would be subject to all applicable program requirements.

The blending of raisins by a producer in his capacity as a producer, other than the blending of raisins entirely of his own production in the course of his usual and customary practices of preparing raisins for delivery, would cause him to be a handler pursuant to § 989.15 and subject to regulation as such. Inasmuch as this restriction on producer blending continues to apply, such a group could not blend the raisins of one member with those of another person (whether a member or not) without becoming a handler, being regulated as such, and in violation if prohibited blending were performed. Otherwise, the group would be accorded a privilege not given the individual producer.

If producers (whether individually or as such a group) do not exercise appropriate care and measures in cleaning natural condition raisins, particularly when cleaning with water, the raisins may become more susceptible to deterioration in storage or to damage in processing. The committee should ascertain proper cleaning methods and procedures and inform producers and dehydrators thereof. However, should such advisory action by the committee be inadequate to assure cleaning of raisins by producers or dehydrators in accordance therewith, the committee should have the authority to restrict the permitted cleaning by producers (whether individually or by groups thereof) and by dehydrators in the interest of maximizing the supply of sound raisins delivered to packers. Therefore, after the second proviso of § 989.14, a third proviso should be added to provide that the committee may, with the approval of the Secretary, restrict the exception as to permitted cleaning if necessary to cause delivery of sound raisins. Regulatory matters of this nature should, as an administrative safeguard, provide for such approval.

(2) Paragraph (c) of § 989.52 should be deleted from the order. This paragraph provides that the committee shall defer action on any marketing policy or percentage recommendation of the Raisin Advisory Board until at least the day following the day on which any such recommendation is adopted by the board. Before this waiting requirement was made effective in 1955, it was customary, after the board had made its recommendations to the committee with respect to marketing policy and volume percentages, for the committee to meet, immediately after the board meeting on the same day, to consider the board's recommendations and to formulate and adopt its recommendations on these matters to the Secretary. Due to industry differences of opinion prior to 1955, as reflected in board and committee meetings regarding volume percentages, the program was amended in 1955 to require the committee to wait until at least the following day so that the individual committee members would have more time before the committee meeting to consider the board's recommendations on these matters. However, a need for this requirement has not been shown since 1955. Since then the differences of opinion have lessened and the committee has adopted and recommended to the Secretary the same marketing policy and percentages as recommended to it by the board. The requirement has caused needless meeting expense and unduly used the time of committee members by compelling them to convene on a day subsequent to the board meeting when, in the absence of the requirement, they could have met as the committee on the same day as the board immediately after adjournment of the board meeting at which they were present. Moreover, deletion of the requirement would not prevent the committee from meeting a day or more after the board meeting, as is currently prescribed, if circumstances should so dictate.

(3) The proposal to establish an off-grade raisin pool is not recommended for adoption on the basis of the present record. The evidence of record is that such a pool, within the context of the existing order, would so increase the complexity of the present program as to raise a question as to whether such is warranted in view of the desired benefits.

The benefits sought by the proposal are (1) to permit more rapid determination as to whether or not a given off-grade lot is reconditionable, (2) to cause charges to producers for drying or reconditioning to approximate handler costs, and (3) to cause general usage of the best reconditioning practices and thereby minimize the loss of sound raisins from any off-grade lot. However, without an off-grade pool, there is much that producers and handlers, acting through the committee, can do to improve the program's capability to so serve the producer. Some of this would in any event have to be done as a prerequisite to operating the proposed off-grade pool and to preparing the proposed implementing reconditioning agreement between handlers and the committee. There is need, for instance, for a compilation and evaluation of drying and reconditioning practices, the variation in their costs, and the recovery of sound raisins correlated with defects and reconditioning practices. The existence of such a compilation and its wide dissemination to producers, dehydrators, and packers, could improve the situation of producers with rain damaged raisins relative to that of the 1963 season. The committee presently has authority, pursuant to § 989.53, to cause such a compilation to be made and the results disseminated. Moreover, amendatory action recommended herein is designed to partially remove present restrictions as to cleaning of raisins by producers and thereby permit greater defect removal prior to delivery to handlers. Until some of these things have been done and the results evaluated, it is not practical to conclude that an off-grade pool is a necessary means of benefiting producers and increasing supplies of standard quality raisins.

(4) The order now provides that under certain conditions off-grade raisins that are not returned to the tenderer or reconditioned, and that raisin residual material accumulated from reconditioning off-grade raisins or from processing standard raisins, and that raisins acquired as standard raisins which fail to meet applicable outgoing minimum quality standards, after any recovery of standard quality raisins therefrom, shall be disposed of for distillation, animal feed, or uses other than for human consumption. This system of disposition should be altered by changing a number of order provisions so that disposition of off-grade raisins and raisin residual material can be better controlled and channeled.

Paragraph (f) of § 989.59 should be recaptioned "Disposition of off-grade raisins and raisin residual material in eligible non-normal outlets" so as to be descriptive of its revised provisions. So that order requirements for disposition of off-grade raisins and raisin residual material in low-order outlets would be set forth in one place in the order, paragraph (f) should be revised to provide that any off-grade raisins, except those returned unstemmed to the tenderer or successfully reconditioned, and any raisin residual material (including defective raisins, stemmer waste, sweepings, and other residue) which may be received or acquired by a handler or accumulated by a handler from reconditioning raisins or from processing his standard raisins, and any raisins acquired by a handler as standard raisins which fail to meet the applicable grade and condition standards for shipment or final disposition as raisins, shall be disposed of or marketed by the handler, without further inspection, in eligible non-normal outlets. Since the revision stated in the preceding sentence provides for the disposition of residual raisins and material accumulated by handlers in reconditioning off-grade raisins, the last sentence of § 989.58(e)(4) covering the same subject matter should be deleted.

The aforesaid revision also differs from present paragraph (f) in that the former requires disposition of the described raisins and material in eligible non-normal outlets rather than specifying for distillation, animal feed, or uses other than for human consumption. In this regard, a new section, § 989.24a, should be added to the order to define the term "non-normal outlets" as meaning outlets other than those customarily used for commercial disposition of raisins meeting the then applicable minimum standards for natural condition raisins or packed raisins. This new definition would permit the non-normal outlets to include human consumption outlets if the use of the raisins and material would not include or interfere with customary uses of standard quality raisins. For example, the use in cigarette tobacco of raisin syrup made from off-grade raisins could be considered use of raisins in a human consumption outlet but such use has not been considered as interfering with the commercial disposition of standard quality raisins. There may be other noninterfering human consumption uses for off-grade raisins or raisin residual material which the raisin industry can develop. It should be permitted to develop and exploit them in the interests of broadening markets for such raisins and material.

The proviso in paragraph (f) permitting packers to recover raisins from accumulations and acquisitions should be retained so as to continue to permit maximum recovery of standard quality raisins through further processing or reworking.

The aforesaid revision of paragraph (f) should include authority for the Secretary, on recommendation of the committee, to specify which non-normal outlets may not be used for any class of the described off-grade raisins and raisin residual material by precluding the disposition of such by handlers and the receipt and use of such by processors in the specified non-normal outlets. The hearing evidence is that, with an exception discussed hereinafter as to permitting certain raisins and raisin residual material to be used for distillation, the Secretary, on basis of a recommendation of the committee, should have such authority. This latitude with respect to the so-called closing of a non-normal outlet could permit the disposition of off-grades and residual in a manner to prevent oversupplying that outlet. For example, when, due to rain, a large supply of off-grade raisins is available and high proof and dessert wine inventories are burdensome, it may be desirable to consider such damaged raisins as a separate class and to exclude that class from the distillation outlet (i.e., a non-normal outlet). This action would tend to prevent the price structure of raisin variety grapes and their high proof and wine outlets from being further burdened in the then current crop year and a possible reduction in subsequent vintner demand which could cause an excessive production of raisins and thereby decrease producer returns from raisins.

So that such restrictions could be imposed in a manner that would assure accomplishment of their purpose, thereby tending to effectuate the declared policy of the act, it is necessary to provide for limiting not only the disposition of any class of off-grade raisins or raisin residual material by handlers but also the receipt and use of such by processors (as defined in § 989.13, this term includes distillers and syrup manufacturers in the area). By this means, for example, should a prohibited class of off-grade raisins or raisin residual material be inadvertently or otherwise delivered to some non-normal outlet (e.g., the distillation outlet), which was designated as an ineligible outlet, the processor would be subject to control with respect to his receipt and use thereof. In order to make the present definition of the term "processor" consistent with, and reflect, the foregoing, § 989.13 should be revised by including therein the receipt of raisins (whether or not in the form of raisin residual material) as one of the criteria in determining whether a person is a processor.

As a necessary safeguard against unregulated persons delivering off-grade raisins or raisin residual material into normal markets for standard quality raisins or other than eligible non-normal outlets, the order should provide that the person making any such delivery shall be a handler. Thus, producers, dehydrators, and other persons not already handlers would come within the scope of the order and be subject to control with respect to such deliveries. Such safeguard is also necessary to assure the nondelivery of such raisins and material to an ineligible non-normal outlet where the receiver is not a processor and is not subject to control as to receipt or use of the raisins. However, deliveries of such raisins and materials to packers should not be subject to such controls since they customarily receive off-grade raisins for reconditioning.

The aforesaid revision of § 989.59(f) should provide that processors who are distillers shall not be precluded from receiving or using for distillation (i) those acquisitions of standard raisins by handlers which subsequently fail to meet the applicable minimum standards, (ii) the raisin residual material accumulated by handlers from processing standard raisins, and (iii) the raisin residual material referable to the standard raisin equivalent recovered in reconditioning. Permitting distillers to receive and use such raisins and material for distillation would continue a historical and normal practice recognized by the grape crush marketing order program (7 CFR Part 990), would maintain handler outlets and hence income for the payment of raisin producers, and would permit established practices of expeditious removal of residues, particularly the nonstorable, from packing premises in the interest of good sanitation.

In view of the proposed new § 989.24a and revised § 989.59(f), the expression "distillation, animal feed, or outlets other than for human consumption" or similar expressions in §§ 989.58, 989.59, and 989.60 should be conformed to reflect such changes.

In view of the difficulties which may arise in assuring that off-grade raisins or raisin residual material disposed of for use outside of California would be used in eligible non-normal outlets, the order should expressly provide permissive authority to require that the disposition and use of all or any class of off-grade raisins or raisin residual material be confined to the area.

As the record shows, instances have been reported of shipments of uninspected natural condition raisins, likely off-grade, to points within the area—the State of California—where a receiver from outside the area took delivery and moved such raisins out of California in violation of the order and the rules, regulations, and requirements effective pursuant thereto. Although under the order the shipment of natural condition raisins out of the area makes a person a "handler", ascertaining compliance has been impossible in instances where the identity of the person who took them out of the State was unknown and the person responsible for initiating the out-of-State shipment (i.e., placing the raisins in the current of interstate or foreign commerce) or for continuing the shipment within the State to some point therein did not actually move the raisins out of California. As a necessary safeguard to assure that only those natural condition raisins which meet program requirements are shipped out of the area and to strengthen control over off-grade raisins, each person who is responsible for the initiation of an out-of-State shipment or the continuation of any such shipment within the area should be designated as a handler thereby bringing each such person within the purview of the order, the same as those persons who ship the raisins out of the area and are now subject to the order as handlers.

(5) The first sentence of § 989.79 should be amended by striking the period at the end thereof and adding thereto "and for such purposes as he may, pursuant to this subpart, determine to be appropriate." The insertion of this language would make it clear that the committee is authorized to incur expenses and to use assessment money for marketing research and development projects to the extent permitted by § 989.53. The latter section on research and development, which was added to the program in 1960, permits the expenses of these projects to be paid from assessment funds or pool funds, or both, as applicable. However, §§ 989.79 and 989.80, which relate to the expenses and assessment funds, continued to provide express authority for the committee to incur expenses (other than those specified in § 989.82) only for the maintenance and functioning of the committee and the Raisin Advisory Board. Hence, the addition of the quoted language would conform §§ 989.79 and 989.80 with § 989.53 and clarify the committee's enlarged authority as aforesaid. The proposed change also would conform the committee's authorization to incur expenses to the authorization provided by the act for certain programs, such as this program, effective thereunder.

The record shows that from time to time the committee may desire to engage in activities which, though not necessarily strictly related to the maintenance and functioning of the committee or the Raisin Advisory Board or to marketing research and development projects, would, however, be within the scope of this program and authorized by the act. Although no particular activity was offered as an example, the committee should not be precluded from utilizing the statutory authority for engaging in any such activities as would be within the scope of the program. The addition of the quoted language would permit the committee to engage in such activities and to incur expenses in connection therewith if the Secretary first finds that the purpose of the particular activity is appropriate within the purview of the program and that expenses to meet the cost thereof should be included as a part of the reasonable expenses of the committee. Thus, effective control of such activities and expenditures therefor would be assured.

(6) It was proposed in the notice of hearing that the order be amended so as to define a class of handlers who recondition raisins but do not acquire such raisins, and so as to specify which provisions of the order, as proposed to be amended, shall apply to such handlers. During the current crop year a number of new packers reconditioned off-grade raisins but did not "acquire" (as defined in § 989.17) any raisins recovered from the reconditioning that met appli-

cable minimum grade standards. Such persons became packers and thereby handlers by performing functions, in reconditioning raisins, that are specified in the definition of "packer" in § 989.14. The standard quality raisins were transferred from these "nonacquiring" packers or handlers to other handlers who acquired them. The "nonacquiring" handlers were required under the order to have incoming and outgoing inspection of the raisins and to comply with reconditioning and all other applicable requirements. However, since these handlers did not acquire the raisins, they were not required under the order to set aside and hold reserve and surplus tonnages for the account of the committee or to pay assessments. The order imposes the setaside and assessment obligations on acquiring handlers.

Section 989.58(a) provides that a handler may receive off-grade raisins for reconditioning. He is not required to acquire the standard raisins recovered. This is clear from § 989.17 which provides that a handler shall not be deemed to acquire any raisins while he reconditions them. For this reason and the further reason that the nonacquiring handlers are covered by the present order, it is concluded that there is no need to define as a separate class of handlers those who recondition but do not acquire raisins. Nor is there a need to change the applicability of the order's requirements to such handlers, except as hereinafter discussed.

As previously discussed, nonacquiring packers participated in operations under the order for the first time during the current crop year. Prior to the crop year, each handler paid a pro rata share of the committee's expenses because each of them acquired raisins. Thus, all handlers under the program shared in defraying expenses. Since the provisions in § 989.80 dealing with assessments are based on acquisitions by, and reserve tonnage sold to, handlers, the new packers were not obligated under the language of the order to bear any share of the cost of the program. The committee's surveillance and other required activities with respect to the operations of the order and ascertaining compliance by handlers (including the so-called nonacquiring handlers) with applicable requirements of the order and regulations thereunder involve a substantial amount of time and expense. Thus, it would not be equitable to require only some of the handlers to bear the burden of defraying such expenses as this would result in a higher pro rata share for the handlers who are assessed than if all handlers under the program participated in meeting such expenses. Therefore, § 989.80 should be revised to extend to nonacquiring handlers the requirement to pay assessments.

Under the present provisions of § 989.80 the administrative assessment is levied on the free tonnage portion of standard raisins acquired by a handler and the reserve tonnage sold to him by the committee in accordance with the order during the applicable crop year. The "acquiring" handler's pro rata share of the committee's expenses is equal to the ratio between such free and reserve tonnages and the total of all such tonnages of all handlers during the same crop year. These provisions should continue in effect for each acquiring handler except that the tonnage on which he would be required to pay assessments should be reduced by the assessable tonnage of nonacquiring handlers which he acquires from them. This would avoid assessing the same tonnage twice. The assessable tonnage of each nonacquiring handler should be the tonnage of standard raisins which he recovers from reconditioning off-grade raisins and which is acquired by some other handler or handlers. Thus, the sum of the assessable tonnages for a crop year of acquiring and nonacquiring handlers would equal the sum of all free tonnage acquired by all handlers plus all reserve tonnage sold to handlers, during that crop year. An equitable method for computing each acquiring and nonacquiring handler's pro rata share of the committee's expenses would be to divide the handler's total assessable tonnage of a crop year by the latter sum. In this way, the same base would be used in computing the respective pro rata shares of nonacquiring handlers and acquiring handlers. The order should be amended accordingly as hereinafter set forth.

(7) Some of the amendatory actions herein cause the need to make certain conforming changes, as hereinafter set forth, in the provisions of the order so that it will be in conformity therewith. Such changes are specifically discussed herein in connection with the proposals to which pertinent.

Proposal abandoned at the hearing. The notice of hearing included a committee proposal to amend the order so as to authorize the committee to permit, within limitations, handlers to use processed raisins, in addition to standard natural condition raisins now permitted, in meeting their reserve and surplus tonnage obligations. The proposal was abandoned and no evidence was presented in support of it.

Rulings on proposed findings and conclusions. The Presiding Officer announced at the hearing that interested persons would be allowed to and including March 31, 1964, to file with the Hearing Clerk proposed findings and conclusions, and written arguments or briefs, based upon evidence received at the hearing. Briefs were filed by C. W. Bonner, Jack Heinrich, Dan Hoak, George J. Kaufman, and E. W. Landram which contained proposed findings, conclusions, and arguments.

Every point covered in these briefs has been considered carefully, in light of the scope of the notice and the evidence in the record, in making the findings and reaching the conclusions herein set forth. To the extent that any suggested findings and conclusions contained in those briefs are inconsistent with the findings and conclusions contained herein, they are denied on the basis of the facts found and stated in connection with this recommended decision.

General findings. (1) The findings hereinafter set forth are supplementary, and in addition to, the previous findings and determinations which have been made in connection with the issuance of the marketing agreement and order and the subsequent amendment thereof, and all of the said previous findings and determinations are hereby ratified and affirmed except the finding as to the base period for the parity computation and insofar as such findings and determinations may be in conflict with the findings set forth herein (For prior findings and determinations see 14 F.R. 5136; 20 F.R. 6435; 21 F.R. 8182; 25 F.R. 12814);

(2) The marketing agreement and order, as amended and hereby proposed to be further amended, and all of the terms and conditions thereof, will tend to effectuate the declared policy of the act;

(3) The marketing agreement and order, as amended and hereby proposed to be further amended, regulate the handling of raisins produced from grapes grown in California in the same manner as, and are applicable only to persons in the respective classes of industrial or commercial activity specified in, the marketing agreement and order upon which hearings have been held;

(4) There are no differences in the production and marketing of raisins in the production area covered by the marketing agreement and order, as amended and hereby proposed to be further amended, which require different terms applicable to different parts of such area;

(5) The marketing agreement and order, as amended and hereby proposed to be further amended, are limited in application to the smallest regional production area which is practicable, consistently with carrying out the declared policy of the act, and the issuance of several orders applicable to subdivisions of the production area would not effectively carry out the declared policy of the act; and

(6) All handling of raisins produced from grapes grown in California is in the current of interstate or foreign commerce, or directly burdens, obstructs, or affects such commerce.

Recommended amendment of the order. The following further amendment of the order is recommended as the detailed and appropriate means by which the foregoing conclusions may be carried out:

1. In § 989.13 the words "receives or" are inserted between "who" and "acquires".

2. In § 989.14 the provisos are revised to read as follows:

Provided, That no producer with respect to the raisins produced by him, and no group of producers with respect to raisins produced by the producers comprising the group, and not otherwise a packer shall be deemed a packer if he or it sorts or cleans (with or without water) such raisins in their unstemmed form: *Provided further,* That any dehydrator shall be deemed to be a packer, with respect to raisins dehydrated by him, only if he stems, cleans with water subsequent to such dehydration, seeds or packages them for market as raisins: *And provided further,* That the committee may, with the approval of the Secretary, restrict the exception as to per-

mitted cleaning if necessary to cause delivery of sound raisins.

3. Paragraph (b) of § 989.15 is revised to read as follows:

(b) Any person who places, ships, or continues natural condition raisins in the current of commerce from within the area to any point outside thereof;

4. In § 989.15 the "or" immediately preceding paragraph (c) is deleted, paragraph (c) is redesignated as paragraph (d), and a new paragraph (c) is added reading as follows:

(c) Any person who delivers off-grade raisins or raisin residual material to other than a packer or other than into any eligible non-normal outlet; or

5. A new § 989.24a reading as follows is added immediately preceding § 989.25:

§ 989.24a Non-normal outlets.

"Non-normal outlets" means outlets other than those customarily used for commercial disposition of raisins meeting the then applicable minimum standards for natural condition raisins or packed raisins.

6. Paragraph (c) of § 989.52 is deleted.

7. In the first proviso of § 989.58(a) "eligible non-normal outlets" is substituted for "distillation, animal feed, or outlets other than for human consumption".

8. § 989.59(d)(1)(v) "in eligible non-normal outlets" is substituted for "to distillation, animal feed, or uses other than for human consumption".

9. In § 989.58(e)(1)(i) "in eligible non-normal outlets" is substituted for "for distillation, animal feed, or uses other than for human consumption".

10. In the last sentence of § 989.58(e)(1) "into eligible non-normal outlets" is substituted for "for distillation, animal feed, or uses other than for human consumption".

11. The last sentence of § 989.58(e)(4) is deleted.

12. Paragraph (f) of § 989.59 is revised to read as follows:

(f) *Disposition of off-grade raisins and raisin residual material in eligible non-normal outlets.* Any off-grade raisins, except those returned unstemmed to the tenderer or successfully reconditioned, and any raisin residual material (including defective raisins, stemmer waste, sweepings, and other residue) which may be received or acquired by a handler or accumulated by a handler from reconditioning raisins or from processing standard raisins, and any raisins acquired by a handler as standard raisins which subsequently fail to meet the applicable grade and condition standards for shipment or final disposition as raisins, shall be disposed of or marketed by the handler, without further inspection, in eligible non-normal outlets: *Provided*, That no packer shall be precluded from recovering raisins from such accumulations or acquisitions: *Provided further*, That whenever the Secretary concludes, on the basis of a recommendation of the committee, that to specify one or more non-normal outlets as ineligible for any class of such receipts, acquisitions, or accumulations will tend to effectuate the declared policy of the act, he shall specify such ineligible outlets and prohibit the shipment thereto or final disposition therein of such class by handlers as well as the receipt and use thereof by processors: *And provided further*, That no processor who is a distiller shall be precluded from receiving or using for distillation (i) the standard raisins which subsequently fail to meet the said applicable standards, (ii) the raisin residual material accumulated from processing standard raisins, or (iii) the raisin residual material referable to the standard raisin equivalent recovered in reconditioning; and any handler may ship such raisins and raisin residual material to such processor. The committee shall establish, with the approval of the Secretary, such rules and procedures as may be necessary to insure adequate control over the off-grade raisins and raisin residual material subject to this paragraph. Such rules may include a requirement that the disposition and use of all or any class of off-grade raisins or raisin residual material be confined to the area. The provisions of this paragraph are not intended to excuse any failure to comply with all applicable food and sanitary rules and regulations of city, county, state, federal or other agencies having jurisdiction.

13. In § 989.60 "non-normal outlets" is substituted for "distillation, animal feed, or any use other than for human consumption".

14. The period at the end of the first sentence in § 989.79 is replaced by "and for such purposes as he may, pursuant to this subpart, determine to be appropriate".

15. The provisions of § 989.80 are revised to read as follows:

§ 989.80 Assessments.

(a) Each handler shall, with respect to free tonnage acquired by him, and reserve tonnage sold to him pursuant to § 989.67, pay to the committee, upon demand, his pro rata share of the expenses (exclusive of expenses for receiving, handling, holding or disposing of any quantity of reserve and surplus tonnage) which the Secretary finds will be incurred, as aforesaid, by the committee during each crop year. Such handler's pro rata share of such expenses shall be equal to the ratio between the total free tonnage acquired by such handler, plus all reserve tonnage sold to him for use as free tonnage, during the applicable crop year and the total free tonnage acquired by all handlers, plus all reserve tonnage sold to all handlers for use as free tonnage, during the same crop year: *Provided*, That (1) in computing the total free tonnage acquired by a particular handler, there shall be excluded all standard raisins (recovered by the reconditioning of off-grade raisins) acquired by the handler and which comprise the assessable portion of another handler pursuant to paragraph (b) of this section, and (2) the computation of the total free tonnage acquired by all handlers shall not be similarly reduced.

(b) Each handler who reconditions off-grade raisins but does not acquired the standard raisins recovered therefrom shall, with respect to his assessable portion of all such standard raisins, pay to the committee, upon demand, his prorata share of the expenses which the Secretary finds will be incurred by the committee each crop year. Such handler's pro rata share of such expenses shall be equal to the ratio between the handler's assessable portion (which shall be a quantity equal to the free tonnage portions of such handler's standard raisins which are acquired by some other handler or handlers) during the applicable crop year and the total free tonnage acquired by all handlers, plus all reserve tonnage sold to all handlers for use as free tonnage, during the same crop year.

(c) During any crop year or any portion of a crop year for which volume percentages are not effective for a varietal type, all standard raisins of that varietal type acquired by handlers during such period shall be free tonnage for purposes of levying assessments pursuant to this section. The Secretary shall fix the rate of assessment to be paid by all handlers on the basis of a specified rate per ton. At any time during or after a crop year, the Secretary may increase the rate of assessment to obtain sufficient funds to cover any later finding by the Secretary relative to the expenses of the committee. Each handler shall pay such additional assessment to the committee upon demand. In order to provide funds to carry out the functions of the committee and the board, the committee may accept advance payments from any handler to be credited toward such assessments as may be levied pursuant to this section against such handler during the crop year. The payment of assessments for the maintenance and functioning of the committee, and for such purposes as the Secretary may pursuant to this subpart determine to be appropriate, may be required under this part throughout the period it is in effect, irrespective of whether particular provisions thereof are suspended or become inoperative.

Dated: May 19, 1964.

CLARENCE H. GIRARD,
Deputy Administrator,
Agricultural Marketing Service.

[F.R. Doc. 64-5198; Filed, May 22, 1964; 8:51 a.m.]

Agricultural Research Service

[9 CFR Part 131]

ANTI-HOG-CHOLERA SERUM AND HOG-CHOLERA VIRUS

Proposed Budget of Expenses and Rates of Assessment for the Calendar Year 1964

Consideration is being given to the approval of a budget of expenses of the Control Agency established under the marketing agreement and the marketing order (9 CFR 131.1 et seq.), regulating the handling of anti-hog-cholera serum and hog-cholera virus, and the fixing of

the rate of assessment to be paid by handlers, for the calendar year 1964, as follows:

§ 131.164 Budget of expenses and rates of assessment for the calendar year 1964.

(a) *Budget of expenses.* The expenses which will necessarily be incurred by the Control Agency, established pursuant to the provisions of the marketing agreement and of the marketing order, for the maintenance and functioning of said Agency during the calendar year 1964, will amount to $49,665.00 under the recommendation of the Control Agency, from which shall be deducted the unexpended balance of $8,903.33 on hand with said Control Agency on January 1, 1964, from assessments collected during the calendar year 1963, leaving a balance of $40,761.67 to be collected during the calendar year 1964.

(b) *Rates of Assessment.* Of the amount of $40,761.67 to be collected during the calendar year 1964, the sum of $32,935.43 shall be assessed against handlers who are manufacturers, and $7,826.24 shall be assessed against handlers who are wholesalers. The pro rata share of the expenses of the Control Agency to be paid for the calendar year 1964 by each handler who is a manufacturer shall be $17.89 for each $10,000 or fraction thereof of serum and virus sold by such handler during the calendar year 1963 and the pro rata share of such expenses to be paid for the calendar year 1964 by each handler who is a wholesaler shall be $25.00 for the first $10,000 or fraction thereof and $8.13 for each additional ten thousand dollars or fraction thereof of serum and virus sold by such handler. Such assessments shall be paid by each respective handler in accordance with the applicable provisions of the marketing agreement and order.

(c) *Terms.* As used herein, the terms "handler", "manufacturer", "wholesaler", "virus", and "serum" shall have the same meaning as is given to each such term in said marketing agreement and marketing order.

Interested parties may obtain copies of the budget mentioned herein from the Executive Secretary of the Control Agency, 714 Veterans of Foreign Wars Building, Kansas City 11, Missouri.

All persons who desire to submit written data, views, or arguments in connection with the aforesaid consideration shall file the same with the Hearing Clerk, Room 112, Building A, United States Department of Agriculture, Washington, D.C., 20250, not later than the close of business on the thirtieth (30th) day after the publication of this notice in the FEDERAL REGISTER. All documents shall be filed in quadruplicate. (49 Stat. 781; 7 U.S.C. 851 et seq.)

Issued this 19th day of May 1964.

M. R. CLARKSON,
Acting Administrator,
Agricultural Research Service.

[F.R. Doc. 64-5169; Filed, May 22, 1964; 8:47 a.m.]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Food and Drug Administration

[21 CFR Part 20]

FROZEN DESSERTS; ICE CREAM AND RELATED FROZEN DESSERTS

Notice of Proposals To Amend Standards of Identity; Correction

In F.R. Document 64-4525, published May 7, 1964 (29 F.R. 6016), the amendatory language of amendment 3b (page 6017) is changed to read:

b. Two petitioners have proposed that § 20.5(f)(3), dealing with natural flavoring, be deleted.

Dated: May 19, 1964.

GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F.R. Doc. 64-5177; Filed, May 22, 1964; 8:48 a.m.]

FEDERAL AVIATION AGENCY

[14 CFR Part 507]

[Reg. Docket No. 5077]

AIRWORTHINESS DIRECTIVES

Consolidated Aeronautics Models Lake LA-4, LA-4A and LA-4P Aircraft

The Federal Aviation Agency has under consideration a proposal to amend Part 507 of the regulations of the Administrator to include an airworthiness directive for Consolidated Aeronautics Models Lake LA-4, LA-4A and LA-4P aircraft. There have been engine failures attributable to icing of the breather tube causing loss of engine oil. To correct this condition, this AD requires modification of the engine breather tube. A compliance date of September 15, 1964, is proposed so that the modification can be accomplished prior to the winter season.

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket number and be submitted in duplicate to the Federal Aviation Agency, Office of the General Counsel, Attention: Rules Docket, 800 Independence Avenue SW., Washington, D.C., 20553. All communications received on or before June 26, 1964, will be considered by the Administrator before taking action upon the proposed rule. The proposals contained in this notice may be changed in the light of comments received. All comments will be available, both before and after the closing date for comments in the Rules Docket for examination by interested persons.

This amendment is proposed under the authority of sections 313(a), 601 and 603 of the Federal Aviation Act of 1958 (72 Stat. 752, 775, 776; 49 U.S.C. 1354(a), 1421, 1423).

In consideration of the foregoing, it is proposed to amend § 507.10(a) of Part 507 (14 CFR Part 507), by adding the following airworthiness directive:

CONSOLIDATED AERONAUTICS. Applies to all Models Lake LA-4, LA-4A and LA-4P aircraft.

Compliance required prior to September 15, 1964.

To preclude the possibility of complete breather blockage and subsequent loss of engine oil, rework and uppermost (-37) elbow located on the oil breather separator container in accordance with Consolidated Aeronautics, Inc. Engineering Order No. 2-657, dated March 2, 1964. This rework consists of locating a ⅜ inch x 3/32 inch whistle slot ¾ inch from top of breather container. (Consolidated Aeronautics, Inc. Service Letter No. 8, Revision No. 1, dated March 7, 1964, covers this same subject.)

Issued in Washington, D.C., on May 18, 1964.

W. LLOYD LANE,
Acting Director,
Flight Standards Service.

[F.R. Doc. 64-5156; Filed, May 22, 1964; 8:45 a.m.]

[14 CFR Part 507]

[Reg. Docket No. 5076]

AIRWORTHINESS DIRECTIVES

Vickers Viscount Model 810 Series Aircraft

The Federal Aviation Agency has under consideration a proposal to amend Part 507 of the regulations of the Administrator to include an airworthiness directive for Vickers Viscount Model 810 Series aircraft. Several instances of cracks have occurred in the rib structure as a result of rapid fatigue of the reinforcing plate in the area between the two flanged ducting holes. To correct this condition, this AD requires inspection of the rib reinforcing plate and the rib web plate and repair or modification if cracks are found.

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket number and be submitted in duplicate to the Federal Aviation Agency, Office of the General Counsel, Attention: Rules Docket, 800 Independence Avenue SW., Washington, D.C., 20553. All communications received on or before June 26, 1964, will be considered by the Administrator before taking action upon the proposed rule. The proposals contained in this notice may be changed in the light of comments received. All comments will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

This amendment is proposed under the authority of sections 313(a), 601 and 603 of the Federal Aviation Act of 1958 (72 Stat. 752, 775, 776; 49 U.S.C. 1354(a), 1421, 1423).

In consideration of the foregoing, it is proposed to amend § 507.10(a) of Part 507 (14 CFR Part 507), by adding the following airworthiness directive:

VICKERS. Applies to all Viscount Model 810 Series aircraft.

Compliance required as indicated.

Fatigue cracking has occurred in the rib structure of the inboard rib at Station 96 of the inboard nacelles, illustrated in Figure 1 of Preliminary Technical Leaflet No. 113 (800/810 Series). To preclude further failures, accomplish the following in accordance with the PTL referenced herein or FAA-approved equivalent:

(a) Within 275 landings after the effective date of this AD, unless already accomplished within the last 225 landings, conduct dye penetrant or an FAA-approved equivalent inspection for cracks in the rib reinforcing plate and rib web plate in accordance with PTL 113. If no cracks are found reinspect at intervals not exceeding every 500 landings from the last inspection until Modification FG. 1960 Part "B" is accomplished. If cracks are found during a reinspection, accomplish (b), (c) or (d), as appropriate, within 275 landings.

(b) If during inspection a crack is found in the rib reinforcing plate only, incorporate the repair scheme Figures 2 and 3 of PTL 113 or an FAA-approved equivalent within 275 landings after the effective date of this AD, and reinspect within every 1,500 landings to ensure that there is no progression of damage in the reinforcing plate and no initiation of damage in the web plate. These repetitive inspections may be discontinued after incorporation of Mod. FG. 1960 Part "C".

(c) If a crack is present in the rib web plate only, incorporate Mod. FG. 1960 Part "B" within 275 landings after the effective date of this AD, and thereafter inspect the rib web plate at intervals not exceeding 3,000 landings to ensure that cracking has not been initiated in the reinforcing plate. These repetitive inspections are no longer necessary after the incorporation of Mod. FG. 1960 Part "C".

(d) Where cracks are present in both the reinforcing plate and the rib web plate incorporate Mod. FG. 1960 Part "C" within 275 landings after the effective date of this AD.

(Vickers-Armstrong Preliminary Technical Leaflet No. 113 Issue 2 (800/810 Series) and Modification FG. 1960 cover this subject.)

Issued in Washington, D.C., on May 18, 1964.

W. LLOYD LANE,
Acting Director,
Flight Standards Service.

[F.R. Doc. 64-5157; Filed, May 22, 1964; 8:46 a.m.]

FEDERAL POWER COMMISSION

[18 CFR Part 260]

[Docket No. R-262]

NATURAL GAS PIPELINE COMPANIES

Proposed Monthly Statement Forms

MAY 19, 1964.

1. Notice is given pursuant to section 4 of the Administrative Procedure Act that the Commission is proposing to reduce the number of natural gas pipeline companies required to submit FPC Form No. 11 each month, as prescribed by § 260.3 of the Commission's regulations. It is also proposed to promulgate a revised Form No. 11 and a new Form No. 11A containing 8 of the major items found in the revised Form No. 11. A copy of each of the proposed forms is appended hereto.[1]

2. The primary purpose of the proposed changes in the system of monthly reporting by natural gas pipeline companies is to provide the Commission with better and more adequate statistical information on current pipeline company operations, to expedite more timely and effective regulation. Another purpose is to restrict the monthly reporting to those companies which, by virtue of the size of their jurisdictional sales, are most frequently involved in Commission actions and for which the need for current monthly data to supplement their Annual Reports to the Commission is most essential. The 50 million Mcf per year cutoff figure here proposed, would eliminate the existing filing requirement for all but about 35 of the largest pipeline companies. In addition, the proposed changes are intended to provide the Commission, other governmental agencies both state and federal, and the industry itself, with reliable national information on a more complete and current basis than is obtainable from the present Form 11.

3. The revised Form No. 11 here proposed is an expansion of that presently in use, to provide more useful information with respect to the monthly volume of natural gas purchases by pipelines from producers and gas production by the pipelines, current consumption of and prices for gas, total revenues to and costs paid by pipeline companies under pending but not yet approved rate increases, and various other economic and statistical facts. In recognition of the added detail that is proposed for collection, the present reporting date for Form No. 11 would be extended from 30 to 40 days after the close of the month to which it relates.

4. The proposed new Form No. 11A provides for filing a small portion of the same information required by the proposed revised Form No. 11, on an estimated basis, if necessary, within 15 days after the close of the reported months. It is designed to make major revenue, expense, and gas volume data available for early publication of preliminary industry results.

5. Any interested person may submit to the Federal Power Commission on or before June 26, 1964, data, views, and comments in writing concerning the amendments proposed herein. The Commission will consider these written submittals before taking any action upon the proposed amendments. An original and nine copies of any such submittals should be filed.

6. The proposed revision of FPC Form No. 11, the promulgation of FPC Form No. 11A and a clarifying amendment of § 260.3 of the Commission's regulations are proposed to be issued under the authority granted by the Natural Gas Act, as amended, particularly sections 10 and 16 thereof (52 Stat. 826, 830; 15 U.S.C. 717i, 717o).

7. Accordingly, it is proposed to revise the existing reporting requirements for natural gas pipeline companies, to revise FPC Form No. 11 as set out in attachment A hereto; to prescribe a new FPC Form No. 11A as set out in attachment B hereto; and to amend § 260.3, Subchapter G of Chapter I, Title 18 of the Code of Federal Regulations, to read as follows:

§ 260.3 Forms Nos. 11 and 11A, natural gas pipeline company monthly statements.

(a) The two forms of monthly statements for Classes A an B natural gas companies, designated as FPC Form No. 11 and FPC Form No. 11A are prescribed for the month beginning ----------, 1964, and thereafter.

(b) (1) Each natural gas company, as defined in the Natural Gas Act, whose combined "gas sales for resale" and "gas transported or stored for a fee" exceeded 50 million Mcf in the previous calendar year shall prepare and file with the Commission for the month beginning ---------- 1964, and for each month thereafter, two copies of Monthly Statement, FPC Form No. 11. Such statement shall be filed within 40 days after the end of the reported month and shall be signed by the Chief Accounting Officer of the reporting company, but is not required to be under oath. One copy of the report should be retained by the correspondent in its files.

(2) Each natural gas company required by subparagraph (1) of this paragraph to file FPC Form No. 11 shall also prepare and file two copies of the monthly statement, FPC Form 11A. Such statement shall be filed in accordance with the requirements of subparagraph (1) of this paragraph, except that it shall be filed within 15 days after the end of the reported month. Any company which elects to file FPC Form No. 11 within 15 days after the end of any reported month will be excused from filing FPC Form No. 11A for that month.

By direction of the Commission.

JOSEPH H. GUTRIDE,
Secretary.

[F.R. Doc. 64-5158; Filed, May 22, 1964; 8:46 a.m.]

[1] Filed as part of the original document.

Notices

ATOMIC ENERGY COMMISSION

STATE OF NORTH CAROLINA

Proposed Agreement for Assumption of Certain AEC Regulatory Authority

Notice is hereby given that the U.S. Atomic Energy Commission is publishing for public comment, prior to action thereon, a proposed agreement received from the Governor of the State of North Carolina for the assumption of certain of the Commission's regulatory authority pursuant to section 274 of the Atomic Energy Act of 1954, as amended.

A resumé, prepared by the State of North Carolina and summarizing the State's proposed program, was also submitted to the Commission and is set forth below as an appendix to this notice. Appendixes referenced in the appendix are included in the complete text of the program. A copy of the program, including proposed North Carolina regulations, is available for public inspection in the Commission's Public Document Room, 1717 H Street NW., Washington, D.C., or may be obtained by writing to the Director, Division of State & Licensee Relations, United States Atomic Energy Commission, Washington 25, D.C. All interested persons desiring to submit comments and suggestions for the consideration of the Commission in connection with the proposed agreement should send them, in triplicate, to the Secretary, U.S. Atomic Energy Commission, Washington 25, D.C., within 30 days after initial publication in the FEDERAL REGISTER.

Exemptions from the Commission's regulatory authority which would implement this proposed agreement, as well as other agreements which may be entered into under section 274 of the Atomic Energy Act, as amended, were published as Part 150 of the Commission's regulations in FEDERAL REGISTER issuance of February 14, 1962; 27 F.R. 1351. In reviewing this proposed agreement, interested persons should also consider the aforementioned exemptions.

Dated at Washington, D.C., this 20th day of May 1964.

For the Atomic Energy Commission.

WOODFORD B. MCCOOL,
Secretary to the Commission.

Proposed Agreement Between The United States Atomic Energy Commission and the State of North Carolina for Discontinuance of Certain Commission Regulatory Authority and Responsibility Within the State Pursuant to Section 274 of the Atomic Energy Act of 1954, as Amended

Whereas, The United States Atomic Energy Commission (hereinafter referred to as the Commission) is authorized under section 274 of the Atomic Energy Act of 1954, as amended (hereinafter referred to as the Act) to enter into agreements with the Governor of any State providing for discontinuance of the regulatory authority of the Commission within the State under Chapters 6, 7, and 8 and section 161 of the Act with respect to byproduct materials, source materials, and special nuclear materials in quantities not sufficient to form a critical mass; and

Whereas, The Governor of the State of North Carolina is authorized under North Carolina General Statutes (G.S. 104C–5; 1963, c. 1211) to enter into this Agreement with the Commission; and

Whereas, The Governor of the State of North Carolina certified on ---------- that the State of North Carolina (hereinafter referred to as the State) has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by this Agreement, and that the State desires to assume regulatory responsibility for such materials; and

Whereas, The Commission found on ---------- that the program of the State for the regulation of the materials covered by this Agreement is compatible with the Commission's program for the regulation of such materials and is adequate to protect the public health and safety; and

Whereas, The State recognizes the desirability and importance of maintaining continuing compatibility between its program and the program of the Commission for the control of radiation hazards in the interest of public health and safety; and

Whereas, The Commission and the State recognize the desirability of reciprocal recognition of licenses and exemption from licensing of those materials subject to this Agreement; and

Whereas, This Agreement is entered into pursuant to the provisions of the Atomic Energy Act of 1954, as amended;

Now, Therefore, It is hereby agreed between the Commission and the Governor of the State, acting in behalf of the State, as follows:

Article I. Subject to the exceptions provided in Articles II, III, and IV, the Commission shall discontinue, as of the effective date of this Agreement, the regulatory authority of the Commission in the State under Chapters 6, 7, and 8, and section 161 of the Act with respect to the following materials:

A. Byproduct materials;

B. Source materials; and

C. Special nuclear materials in quantities not sufficient to form a critical mass.

Article II. This Agreement does not provide for discontinuance of any authority and the Commission shall retain authority and responsibility with respect to regulation of:

A. The construction and operation of any production or utilization facility;

B. The export from or import into the United States of byproduct, source, or special nuclear material, or of any production or utilization facility;

C. The disposal into the ocean or sea of byproduct, source, or special nuclear waste materials as defined in regulations or orders of the Commission;

D. The disposal of such other byproduct, source, or special nuclear material as the Commission from time to time determines by regulation or order should, because of the hazards or potential hazards thereof, not be so disposed of without a license from the Commission.

Article III. Notwithstanding this Agreement, the Commission may from time to time by rule, regulation, or order, require that the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing source, byproduct, or special nuclear material shall not transfer possession or control of such product except pursuant to a license or an exemption from licensing issued by the Commission.

Article IV. This Agreement shall not affect the authority of the Commission under subsection 161 b. or i. of the Act to issue rules, regulations, or orders to protect the common defense and security, to protect restricted data or to guard against the loss or diversion of special nuclear material.

Article V. The Commission will use its best efforts to cooperate with the State and other agreement states in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that State and Commission programs for protection against hazards of radiation will be coordinated and compatible. The State will use its best efforts to cooperate with the Commisison and other agreement states in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that the State's program will continue to be compatible with the program of the Commission for the regulation of like materials. The State and the Commission will use their best efforts to keep each other informed of proposed changes in their respective rules and regulations and licensing, inspection and enforcement policies and criteria, and to obtain the comments and assistance of the other party thereon.

Article VI. The Commission and the State agree that it is desirable to provide for reciprocal recognition of licenses for the materials listed in Article I licensed by the other party or by any agreement State. Accordingly, the Commission and the State agree to use their best efforts to develop appropriate rules, regulations, and procedures by which such reciprocity will be accorded.

Article VII. The Commission, upon its own initiative after reasonable notice and opportunity for hearing to the State, or upon request of the Governor of the State, may terminate or suspend this Agreement and reassert the licensing and regulatory authority vested in it under the Act if the Commission finds that such termination or suspension is required to protect the public health and safety.

Article VIII. This agreement shall become effective on ----------, and shall remain in effect unless, and until such time as it is terminated pursuant to Article VII.

Policies and Procedures Applicable to North Carolina Regulations for Protection Against Radiation

Foreword. Section 274 of the Atomic Energy Act of 1954, as amended, authorizes the United States Atomic Energy Commission to enter into an agreement with the Governor of a State to transfer to the State certain licensing and control of byproduct, source, and special nuclear materials in quantities not sufficient to form a critical mass. The North Carolina State Board of Health (hereafter referred to as "the Agency") has been designated by the North Carolina General Assembly and is prepared to accept this responsibility. To that end the Agency hereby presents a narrative description of its proposed program for the control of sources of ionizing radiation, including naturally occurring isotopes and certain radiation producing machines.

The regulatory program for control of sources of ionizing radiation in North Carolina, presented here in some detail, will be conducted in such a manner as to protect effectively the public health and safety, and to further the economic growth of the State by encouraging the safe and proper utilization of radiation for peaceful purposes. The program is compatible with the regulatory program of the United States Atomic Energy Commission and will be maintained so as to ensure this compatibility. Uniformity with the regulatory programs of other agreement States will be maintained so far as possible.

The Agency places primary and specific responsibilities for radiation protection upon those persons licensed or registered for sources of radiation, and upon those furnishing designated equipment servicing and services. The Agency has adequate authority and capability to assure compliance with the North Carolina Regulations for Protection Against Radiation.

Statutory Authority. In 1959 the North Carolina General Assembly enacted authority to the Agency (G.S. 104C) to adopt reasonable rules and regulations to provide protection against hazard from radioactivity and ionizing radiation; to require registration of persons possessing or using specified sources of radiation; to enter premises to determine whether applicable laws and regulations are being properly observed; to provide an inspection service and to make surveys (Appendix I). A 1963 amendment to G.S. 104C designated the North Carolina State Board of Health as the Agency which shall provide by rule or regulation for licensing of byproduct, source, special nuclear materials, or devices or equipment utilizing such materials, and for amendment, suspension or revocation of licensees; grants specific authority to the Agency for related protective activities; authorizes the Agency to provide for recognition of other State and Federal licenses as it may deem desirable; authorizes the Governor "to enter into agreements with the Federal Government providing for discontinuance of certain of the Federal Government's responsibilities with respect to sources of ionizing radiation and the assumption thereof by this State" (Appendix II).

The Agency has multiple other general and specific statutory authorities and responsibilities related to the 1959 Act and its 1963 amendment (copies available upon request to the Agency).

History. The North Carolina program for protection against radiation has developed progressively. A committee, advisory to the State Board of Health, on radiation protection was established early in 1958. During the same year this Agency began organizing a State Radiological Emergency Team, which became functional in September 1961. A voluntary State committee, advisory to the Governor on nuclear energy, was also established in 1958. These related actions are reflected in the 1959 North Carolina Atomic Energy, Radioactivity and Ionizing Radiation Law (Appendix I).

This Act established the State policy to promote sound and healthy programs for progressive use of atomic energy in the State, while protecting the public's interests and insuring public health and safety. The Act established the North Carolina Atomic Energy Advisory Committee with six subcommittees on agriculture, education and research, industry and labor, medicine and public health, power, and radiation standards (lists of the Committee and Subcommittee memberships are available upon request to the Agency). The Act assigned specific authority and duties to the State Board of Health.

The State Health Director in 1960 initiated the organization, assured interim staffing, and assigned developmental responsibilities for the State Radiological Health Program. All have been brought up to date recently.

Previous independent activities have included: The establishment in 1952 at North Carolina State College in Raleigh for educational and research purposes the first reactor not owned by the Federal Government; voluntary registration of radiation sources; setting up of patterns for occupational surveillance; actively developed environmental surveillance; readiness to meet reported radiation accidents and emergencies; providing the laboratory services required to support each of these. An orderly equipment procurement program has been implemented to make essential equipment available as staffing progressed.

One of the earliest acts of the North Carolina Atomic Energy Advisory Committee was giving support to the State Health Director's proposal in June, 1960 as he sought United States Public Health Service funds, which resulted in the establishment of a five-year graduate program in Radiological Health (Master's Degree) at the University of North Carolina, School of Public Health, administered entirely by that school. Another early Committee activity was support of the State Health Director in his request to the United States Atomic Energy Commission, which resulted in a contract to establish the North Carolina Institute in Fundamentals of Radiation and Radiological Protection at North Carolina State College and the School of Public Health, 1962–1963. Forty-eight State and local agency personnel were enrolled in the five courses. The Committee has reviewed the many studies, proposals, and recommendations of the State Board of Health in development of the State's radiation protection program. Its subcommittees have been, and will continue, available to the Agency at all times in furnishing advisory and co-ordinating assistance.

In late 1960 a program jointly developed by the State Board of Health with the State's medical, dental, hospital, and veterinary medical associations permitted the voluntary registration of radiation sources in the State before mid-1961. Supplemented by a detailed study of copies of licenses issued by the United States Atomic Energy Commission, and by a Statewide voluntary survey of dental X-ray machines (Surpak), more than three-fourths of all radiation sources in North Carolina have been identified, a bulletin was published in November 1963 listing the known sources so that health, civil defense, law enforcement, and fire prevention and fire fighting services as well as professional, safety, insurance, labor, compensation, and other related personnel can be informed of the nature and extent of most of the existing potential radiation hazards in each community. The Radiological Defense Service of the State Civil Defense Agency, although independent in authority and responsibility, is directed by the same personnel who direct the continuing day-to-day Radiological Health Programs. Both programs are closely co-ordinated and reviewed periodically with the State's law enforcement authorities.

An Agency environmental radiation surveillance program, begun in 1958, checks water supplies for 120 communities periodically, establishing factually the existing background radioactivity in the waters. This program has been evaluated and detailed results published annually, so that the current and future surveillance is on a more practical and authoritative (technical) basis. (Copies of pertinent reports are available upon request to the Agency). Concurrently, the State has long participated with the United States Public Health Service in nationwide, air, milk, and water surveillance network programs. Within the past year the State's independent program has expanded in the realms of air, water, milk surveillance, and food sampling.

In the realm of occupational surveillance, up to now, there has been no compulsory licensing, registration, or inspection. In 1949, shoe-fitting fluoroscopes throughout the State were inspected and their hazards reported to owners who removed them. By 1951, X-ray facilities of several local health departments were inspected and surveyed wherever requested. In 1961–1962, all X-ray facilities of the 100 local health departments in the State were surveyed, demonstrating widespread need for attention to personnel monitoring, proper collimation and filtration, operator shielding, and room shielding. During 1962–1963, with United States Public Health Service support, a Statewide Surpak survey of dental X-ray machines achieved voluntary participation by ninety percent of the 1,462 known dentists; only 20 percent revealed no apparent need for correction. Almost all deficiencies were readily corrected by the dentists' use of fittings furnished to them free. Later, jointly with the North Carolina State Veterinary Medical Association, voluntary survey of Veterinarians' X-ray facilities was undertaken. This has resulted in widespread improvement of personnel monitoring, and correction of improper collimation and filtration.

Occupational surveillance over radioactive materials by the Agency's personnel has involved accompanying Atomic Energy Commission inspectors on essentially all inspections during the past four years. These same State personnel will inspect for the State under this program. In addition all Civil Defense Radiological Defense Service Cobalt 60 source sets have been independently inspected and leak-tested by these State personnel.

The State Radiological Emergency Team has been continuously available since September 1961 when the first issue of the team's procedural guide was published. The team's handbook is revised periodically, the last time, September 1963 (a copy is available upon request to the Agency). Thus, the professionally competent technical guidance by team members has been planned from the start, and continues co-ordinated, with State law enforcement and transportation authorities. Nine American Board certified medical radiologists are available to the team at all times as consultants in any medical care required for victims of radiation accidents.

To support the expanding activities the Agency's Laboratory Division has installed effective equipment, and the increased staff is kept currently abreast of new developments.

The radiation protection program has continued towards State participation under section 274 of the Atomic Energy Act of 1954, as amended. Timely changes have been made in priorities for various program activities in order to meet changing circumstances. For example, environmental surveillance could be and was expedited due to atmospheric testing fallout. Nevertheless, the whole program has been functional since March 5, 1963.

The biennial program to June 30, 1965, is published and is revised annually. It will provide surveillance over environmental and occupational radiation sources, readiness for handling the effects of predictable accident/incident, and laboratory supports to all of these activities.

North Carolina Regulations for Protection Against Radiation, compatible with section 274 and the recommendations of the United States Atomic Energy Commission, United States Public Health Service, and the Council of State Governments, have been approved by the North Carolina Atomic Energy Advisory Committee, the State Board of Health, and the Governor of North Carolina (appendix III). Interested parties have had the opportunity to participate in public hearings on licensing and regulatory activities of the Agency, and have suggested or commented upon the Agency's proposed regulations.

Standards. The standards prescribed by the Agency are included in North Carolina

Regulations for Protection Against Radiation (Appendix III). These standards are equivalent to and compatible with current United States Atomic Energy Commission standards and those of the current agreement states. The standards pertaining to transportation are consistent with rules and regulations of the Interstate Commerce Commission, Federal Aviation Agency, United States Coast Guard, and Post Office Department; the standards pertaining to intrastate transportation are consistent with the same rules and regulations, and with State laws and regulations coming under statutory jurisdiction of all North Carolina agencies. All regulatory requirements are reviewed by the North Carolina Atomic Energy Advisory Committee prior to submission to the Governor for the approval required by statute.

Operating Procedures. The Agency's program for meeting statutory responsibilities is outlined hereafter:

(a) *Licensing.* Licenses will be required for all persons who possess or use in North Carolina radioactive materials in excess of exempt quantities and concentrations. Both general and specific licenses will be issued by the Agency and the criteria for the issuance and renewal of licenses will be the same as used by the United States Atomic Energy Commission. Provisions have been made in the regulations for exemption of certain quantities, concentrations, and devices; e.g., any person may receive, possess, or use products or materials containing radioisotopes in amounts or concentrations not in excess of those listed in the published exempt schedule.

The Agency will issue general licenses under specified circumstances where more stringent control by specific licenses is found to be unnecessary to protect the public health and safety. General licenses will be effective without either the filing of applications with the Agency or the issuance of documents by the Agency to a specific person. In addition to the generally licensed or exempt quantities, certain devices containing radioactive materials which have a built-in high safety factor, and will be safe for use by persons not trained in radiation protection, will be generally licensed.

Specific licensing procedures will involve both the evaluation of the possible radiation hazards and the determination of the adequacy of the radiation controls specifically proposed for application by the license applicants. The required controls will vary with the type of radioactive material(s) under consideration and the proposed use(s). Standards and licensing guides compatible with those used by the United States Atomic Energy Commission will be applied in making these evaluations. No standards more restrictive than those established by the Atomic Energy Act of 1954, and amendments, will be imposed by the Agency.

The Agency's regulations require the following for the issuance of a specific license:

1. The applicant shall be qualified by training and experience to possess and use the material safely and for the proposed purpose.

2. Facilities and equipment of the applicant shall be adequate to protect.

3. The location of the proposed activity shall be suitable for the purpose.

The Agency will require sufficient information submitted by an applicant to provide full knowledge of the proposed program, and this will be used as the basis to determine whether the applicant will be able to comply with the radiation safety regulations. A license will be issued only if the training and experience, facilities and equipment, and proposed operating procedures appear to be adequate for radiation protection, considering the type of material, levels of activity, and the proposed use.

A visit will be made prior to the issuance of a license when this is deemed necessary to make an on-the-spot evaluation of facilities and equipment and of the proposed radiation protection program.

License conditions or requirements will be included in a specific license to cover significant matters or special needs not expressly defined in the pertinent sections of the regulations. The regulations provide the bases for modification, revocation, and termination of licenses.

An Agency Health Physicist will make the initial review and evaluate each application for license. Applications involving significant environmental hazards may be referred to the Sanitary Engineering Division, those involving significant occupational or in-plant hazards to employees may be referred to the Occupational Health Section, for review, comment, and recommendation prior to issuance of a license.

Where indicated, applications involving human use will be referred to the Agency's Medical Isotopes Advisory Group for evaluation, comment, and recommendation. For example, such instances may include: *1.* Circumstances in which the licensing staff has no established precedent for the usage, dosage, or procedure proposed by the applicant; *2.* Where an applicant proposes selection of unusual isotope(s), or excessive or unusual dosage or administration, or procedure, according to known previous experience; *3.* Where the applicant appears to have insufficient training and/or no prior experience in handling isotopes for human usage; *4.* Where currently available information reveals little or no such human use up to now. Under other unusual circumstances, advisory assistance is available and will be sought from qualified consultants.

(b) *Registration.* The Agency is authorized to require the registration of radiation machines (Appendix I) except some 700 X-ray machines (hospital) subject to the provisions of G.S. 131–126.3 (1963, c. 66). Most sources of radiation, including the hospital X-ray facilities and materials which will be licensed by the Agency, have already been voluntarily registered with the Agency. Every person who furnishes or offers to furnish in North Carolina any service or equipment servicing to Agency licensees or registrants will be required to register with the Agency.

(c) *Inspections*—(1) *Licensees.* There will be five types of physical inspections made of radioisotope licensees or license applicants, designated according to their primary purposes. Each of the following types of inspection will be undertaken to the extent the existing circumstances dictate:

1. Prelicensing inspection. At the time of the review of an applicant's proposed program, it will be determined whether or not the quantities and forms of the materials to be used and the scope of the proposed program will justify a prelicensing inspection. This type of inspection will be made to determine if the applicant is capable of conducting his program safely and to obtain additional information needed or desired by those responsible for approving the applicant for license.

2. Initial inspections. After a new license to possess and use material has been granted, the inspection staff will arrange with management for an initial inspection. This type of inspection normally will be announced so that the inspectors will be assured that the authorized radioactive materials will have been obtained, and a use program is in progress.

3. Reinspection. Reinspections will be made of continuing programs subsequent to a previous inspection and may be announced or unannounced. A program is considered continuous even though a new license number may have been assigned.

4. Followup inspections. When items of noncompliance noted on previous inspections justify, followup inspections will be made in addition to others routinely scheduled, to determine the status of corrective action taken by the licensee. This type of inspection will be justified and scheduled only when the items of noncompliance present a potentially significant hazard to the licensee, his employees, or the public, or when management has demonstrated that it may not intend to, or may be unable to, take the corrective actions necessary.

5. Request inspections. The inspection staff will respond to requests by management, a local health director, or other responsible person, for inspection of facilities when the advisory assistance requested cannot be satisfactorily given by means of regular communication. Request inspections may also serve as reinspections if the time of inspection is compatible with the priority schedule established for the licensee. Inspections will also be made on the request of State or local authorities having legitimate cause.

(2) *Registants of X-ray equipment.* There will be four types of physical inspection made of the facilities of registrants of X-ray equipment, utilizing instrumentation:

1. Initial inspections. This type of Agency-initiated inspection normally will be announced so that the registrant can cooperate with the inspector conveniently and beneficially to himself.

2. Reinspections. This type of inspection normally will be announced, as with initial inspections, and usually because of a change of significant nature in the X-ray facility, equipment, or procedures.

3. Followup inspections. This type of inspection will be justified and scheduled only when items of noncompliance, if uncorrected, can create a real and unauthorized radiation exposure of the facility's personnel or the public.

4. Request inspections. This type of inspection, with or without prior announcement, usually will respond to requests by owners, users, local health and other authorities, or other responsible persons, when the advisory assistance requested concerning significant problems cannot be given satisfactorily by means of regular communications.

(3) *Schedule of inspections and surveys.* All types of inspections may be made unannounced if the purpose of the inspection can be served and all desired observations can be made satisfactorily. When advisable to conserve travel time and expense of inspecting personnel or to facilitate normal activities of X-ray equipment registrants, the management or user of a facility may be notified of an impending inspection and an appointment made.

1. Inspection schedule for licensees. The schedule for initial inspection and reinspections of licensees will be determined by priorities established for each license at the time the license is granted. Priorities will be assigned according to the category of use and the scope of the program. Priorities assigned prior to initial inspection will be considered tentative until confirmed after inspection. Priorities may be changed by amendments of license during the course of a program when such changes seem advisable after receipt of notice of a change in the scope of the program or of a change in the category of use. If more than one category is involved, priority will be based on the more restrictive category.

Initial inspection and reinspection schedules will be determined by priorities. Priorities will be determined by the degree of hazard involved with the use of materials in each case.

2. Inspection schedule for registrants of X-ray equipment. Allowing for economy, efficiency, and flexible adjustment to unpredictable circumstances, priorities of inspection of X-ray registrants will be given to the following order:

Priority I: Request inspections.

Priority II: Followup inspections.

Priority III: Initial inspections, undertaken geographically to conserve expense and personnel effort.

Priority IV: Reinspections.

(4) *Designated agency representatives.* Onsite initial inspections of programs and facilities of licensees, license applicants, and registrants always will be made by an Agency Health Physicist, or by designated authorized representatives of the Agency's Occupational Health Section who are qualified by experience and training in radiological health. Later inspections normally will be made by the same personnel. In addition, after approval by the State Board of Health in each instance, the Director, State Radiation Protection Program may designate in writing for a specified period of time a named public employee, e.g., of a State or local governmental agency, when qualified, as authorized representative of the agency, in accordance with section A.11(b), North Carolina Regulations for Protection Against Radiation. Prior to authorization by the Agency the individual qualifications for the designated purpose will be reviewed and proven at least equal to those of Agency incumbent personnel. Conduct of all inspections and the resulting reports will be subject to Agency supervision and to review by the Public Health Physicist and the Director of the State Radiation Protection Program. The Agency's Public Health Physicist will act as consultant and render technical advice to all authorized representatives of the Agency.

(5) *Conduct of inspections.* The Agency authorized representative making an inspection will interview the licensee, management, or registrant, and discuss the complete program in considerable detail.

The Agency authorized representative will be prepared with proper instrumentation to make all necessary radiation measurements in work areas and at the completion of the physical and records survey, the inspector will discuss his findings with the licensee or registrant and point out any items of noncompliance noted. He will assist the licensee or registrant by explaining the corrections the inspector has observed to be needed in the program.

(6) *Inspection reports.* A summary report of every inspection will be prepared to include a description of the program, records, violations, and other pertinent remarks, a copy of which will be furnished the licensee or registrant, and a copy filed by the Agency.

(d) *Accidents and incidents.* Investigation at the site of a radiological accident or incident will be made promptly in detail to determine the cause of the incident, in accordance with the provisions contained in the Handbook, North Carolina State Radiological Emergency Team (copy available upon request to the Agency). Agency authorized representatives will discuss with those persons responsible, measures to prevent additional incidents. The Agency has statutory authority to control effectively any incident and to protect adequately the public health and safety. Investigation of an incident should reveal whether or not any Agency action with or against the licensee is indicated.

(e) *Enforcement.* Status of compliance with the Agency's regulations will be determined by evaluation of reports of inspections of licensees' and registrants' activities.

If no items of noncompliance are observed at the time of an inspection, each licensee or registrant will be so informed. If only minor items of noncompliance are observed and the licensee or registrant agrees at the time of the inspection to correct these, the licensee or registrant will be informed by letter of the items of noncompliance and that the effectiveness of corrective actions undertaken will be reviewed at the time of the next inspection.

If the inspection report shows noncompliance of potentially significant nature, the licensee or registrant will be required to notify the Agency promptly in writing as to every corrective action taken and the date completed. Thereafter, a prompt followup inspection may be made to insure that the necessary corrective action has been accomplished. If the written notification to the Agency does not explain satisfactorily a licensee's noncompliance, and also assure that further predictable violations will be prevented, the Agency may issue an order to show cause why the license should not be terminated or otherwise modified. If conditions observed during an inspection create a serious potential or actual hazard, the inspector will report immediately to the Agency by telephone. Enforcement action, such as an order by the Agency to the licensee or registrant to take immediate corrective action, may then be taken without delay. The Agency is authorized to impound sources of ionizing radiation under specified circumstances.

Willful noncompliance, or a need for extensive Agency action to correct or control deficiencies or acts of noncompliance, are expected to be unusual or of rare occurrence. Every effort by the Agency will be extended towards securing voluntary co-operation and compliance, and thereby creating little demand for legal enforcement.

A hearing may be held upon the request of any person whose interest may be affected by enforcement proceedings.

Delegation of Authority—(a) *Chain of command.* As approved by the State Board of Health, the State Health Director has authority to delegate the pertinent responsibilities. He has done this by delegation of administrative direction to specified staff members, and to certain personnel devoting full time and part time for implementing the program. The Director of the State's Radiation Protection Program directs the planning and implementation of the entire program, coordinated between the division directors concerned. Implementation of the respective responsibilities is undertaken by the Chief, Radiation Protection Section for Public Health Physics guidance and activities; by the Director, Sanitary Engineering Division for environmental radiation surveillance; by the Chief, Occupational Health Section for occupational radiation surveillance; by the Chief, State Radiological Emergency Team for response to and control of accidents; and by the Director, Laboratory Division for all laboratory services required to support these operational segments of the program. Hence, the chain of command proceeds directly: from the State Board of Health to the State Health Director, to the program Director, to the Director, Sanitary Engineering Division, and to the Director, Laboratory Division. The program director administers directly the activities of the Radiation Protection Section, the Occupational Health Section, and the State Radiological Emergency Team.

(b) *Delegation of authority.* The authority and responsibility for administering North Carolina Regulations for Protection Against Radiation, covering the statutory licensing of byproduct, source, special nuclear materials, or devices or equipment utilizing such materials, has been assigned to the Director, State Radiation Protection Program. As he directs, applications for licenses will be approved or disapproved. He will issue denials for cause, or denials without prejudice. He may terminate a license, after opportunity is offered the licensee for a hearing, due to failure to correct items of noncompliance, or for other justified cause, after specific approval by the State Health Director in each instance. Under his administrative control the Health Physicist will provide technical assistance and consultation, to him and to all other Agency personnel administering and implementing the State Radiation Protection Program and the North Carolina Regulations for Protection Against Radiation.

Personnel and staffing. Sufficient and qualified Agency staff and consultants are available:

(a) *Agency staff.* Individual staff qualifications reflect the necessary education, training, and experience to ensure competent administration and implementation of the program (Appendix IV). All future replacements of incumbents, or employment to fill new vacant positions, will follow close scrutiny to ensure qualifications at least equal to those of incumbents.

(b) *Consultants.* The Agency and its State Radiological Emergency Team can call upon 20 qualified consultants voluntarily available within the State to advise upon and assist in the handling of any unusual or complex problem or serious hazard related to this program:

(1) Six general program consultants include a Board-Certified Industrial Hygiene Engineer specializing in radiological health; an experienced chemist (Ph. D.) specializing in nuclear, tracer, and radiation chemistry; a Fellow of the American Academy of Oral Roentgenology; a physicist (Ph. D.) experienced in laboratory equipment design and applications to nuclear science and engineering and directing a recognized research laboratory; two experienced radiological safety officers of two recognized graduate educational and research institutions

(2) Nine Board Certified Medical Radiologists, all recognized in the diagnostic and therapeutic aspects of X-ray, radium and medical isotopes involving human use

(3) Six members of the Agency's Medical Isotopes Advisory Group, including three Board-Certified Radiologists experienced with medical isotopes; two Board-Certified Health Physicists experienced in educational, research, and medical radiation protection and safety programs; a radiation biologist (has just completed Ph. D. requirements) experienced in and chief of medical physics at a third recognized North Carolina graduate educational and research institution.

Regulations. The Agency has statutory authority to administer the applicable regulations (Appendix III), which will become effective upon the effective date of the agreement between the Governor of North Carolina and the United States Atomic Energy Commission. Interested parties have timely opportunity to participate in public hearings on licensing and regulatory activities of the Agency.

Budget. The biennial budget for fiscal years 1964 and 1965 as originally approved provides sufficiently for a sound program. Minor salary increases for clerical personnel have been provided by administrative action. The actual expenditures during fiscal year 1963 approximated those occurring during 1964 (a budget summary is available upon request submitted to the Agency).

Funds are sufficient through fiscal year 1965 for 14 full-time personnel, 12 currently employed. Nine other professional personnel devote up to 50 percent part time to this program. New position vacancies will permit timely employment of two full-time inspecting personnel for radioactive materials. This will provide staff equivalent to four full-time radiation inspectors. Although currently qualified, the existing staff regularly will attend appropriate professional, conference, seminar, and short-course training to maintain and improve administrative and technical competence. Their necessary travel for training and daily duties is assured. Up-to-date survey and laboratory equipment has been procured. An equipped instrument maintenance shop is manned by a well-qualified employee. A high-level survey instrument calibration facility will be functional July 1, 1964.

Equipment. All necessary equipment has been procured and is functional (Appendix V). In addition, laboratory facilities at Duke University, North Carolina State College, University of North Carolina School of Public Health, and North Carolina Research Triangle Institute Isotopes Development Laboratory, are available to the Agency for limited supplementary counting and analyses under unusual demands. The program director keeps himself informed of the locations of all State Civil Defense Agency instruments and 39 Cobalt 60 source sets, as Chief, Radiological Defense Service.

The Agency is licensed for and has a Radiac Calibrator (120-curie Cs-137) for use in an established high-level survey instrument calibration facility. A suitable X-ray facility is planned, for variable-level calibration of the Agency's X-ray survey instruments. Both calibration facilities will be utilized also in special studies contributing to the program. The Agency has a well-equipped electronics maintenance shop administered by a qualified electronics specialist. All Agency equipment is thoroughly inspected and tested, repaired when necessary, and calibrated periodically.

Sample Forms. In addition to notice to employees and occupational exposure record forms, found at the end of Part C of the Agency's draft regulations (Appendix III), sample forms have been drafted for applications, licenses, and registration (Appendix VI).

[F.R. Doc. 64-5171; Filed, May 22, 1964; 8:47 a.m.]

DEPARTMENT OF COMMERCE

Office of the Secretary

GEORGE A. SANDS

Statement of Changes in Financial Interests

In accordance with the requirements of section 710(b)(6) of the Defense Production Act of 1950, as amended, and Executive Order 10647 of November 28, 1955, the following changes have taken place in my financial interests as reported in the FEDERAL REGISTER during the past six months:

A. Deletions: No change.
B. Additions: No change.

This statement is made as of May 8, 1964.

GEORGE A. SANDS.

MAY 8, 1964.

[F.R. Doc. 64-5179; Filed, May 22, 1964; 8:48 a.m.]

CIVIL AERONAUTICS BOARD

[Docket 13743]

NORTH CENTRAL AREA AIRPORT INVESTIGATION

Notice of Oral Argument

Notice is hereby given, pursuant to the provisions of the Federal Aviation Act of 1958, as amended, that oral argument in the above-entitled proceeding is assigned to be heard on June 24, 1964, at 10:00 a.m., e.d.s.t., in Room 1027, Universal Building, Connecticut and Florida Avenues NW., Washington, D.C., before the Board.

Dated at Washington, D.C., May 19, 1964.

[SEAL] FRANCIS W. BROWN,
Chief Examiner.

[F.R. Doc. 64-5180; Filed, May 22, 1964; 8:48 a.m.]

[Docket 13752]

UNITED'S SERVICE TO PROVIDENCE, R.I.

Notice of Postponement of Hearing

Notice is hereby given, pursuant to the provisions of the Federal Aviation Act of 1958, as amended, that a public hearing in the above-entitled proceeding heretofore assigned to be held on June 3, 1964, is postponed to June 23, 1964, at 10 a.m., e.d.t., in the Conference Room, New Terminal Building, T. F. Green Airport, Warwick, Rhode Island, before the undersigned examiner.

Dated at Washington, D.C., May 19, 1964.

[SEAL] JOSEPH L. FITZMAURICE,
Hearing Examiner.

[F.R. Doc. 64-5181; Filed, May 22, 1964; 8:48 a.m.]

FEDERAL COMMUNICATIONS COMMISSION

[Docket Nos. 15469, 15470; FCC 64M-433]

ADVANCED ELECTRONICS AND INDUSTRIAL COMMUNICATIONS SYSTEMS, INC.

Order Scheduling Hearing

In re applications of R. L. Mohr, d/b as Advanced Electronics, for a construction permit in the Domestic Public Land Mobile Radio Service at Palos Verdes, California, Docket No. 15469, File No. 214-C2-P-63; Industrial Communications Systems, Inc., for a construction permit for station KMD990 in the Domestic Public Land Mobile Radio Service at Los Angeles, California, Docket No. 15470, File No. 1050-C2-P-63.

It is ordered, This 18th day of May 1964, that Charles J. Frederick will preside at the hearing in the above-entitled proceeding which is hereby scheduled to commence on July 13, 1964, in Washington, D.C.: *And, it is further ordered,* That a prehearing conference in the proceeding will be convened by the presiding officer at 9:00 a.m., June 12, 1964.

Released: May 19, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5187; Filed, May 22, 1964; 8:49 a.m.]

[Docket No. 15471; FCC 64M-434]

AMERICAN TELEPHONE AND TELEGRAPH CO.

Order Scheduling Hearing

In the matter of American Telephone and Telegraph Company, Docket No. 15471, charges for special construction over other than normal routes.

It is ordered, This 18th day of May 1964, that Herbert Sharfman will preside at the hearing in the above-entitled proceeding which is hereby scheduled to commence on July 8, 1964, in Washington, D.C.: *And it is further ordered,* That a prehearing conference in the proceeding will be convened by the presiding officer at 10:00 a.m., June 12, 1964.

Released: May 19, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5188; Filed, May 22, 1964; 8:49 am.]

[Docket Nos. 15190, 15191; FCC 64M-439]

BOARDMAN BROADCASTING CO., INC., AND DANIEL ENTERPRISES, INC.

Order Continuing Hearing

In re applications of Boardman Broadcasting Company, Inc., Boardman, Ohio, Docket No. 15190, File No. BP-14303; Daniel Enterprises, Inc., Warren, Ohio, Docket No. 15191, File No. BP-14886; for construction permits.

The Hearing Examiner having before him a Petition for Extension of Procedural Dates filed on May 18, 1964, by Boardman Broadcasting Company, Inc.; and

It appearing that hearing is now scheduled for May 19, 1964; and

It further appearing that since that date was scheduled the parties have informally arrived at agreements looking toward simplification of procedures to be followed at hearing; and

It further appearing that the procedural schedule set forth below (which among other things contemplates continuance of hearing) is necessary to the parties' procedural plans and has been agreed to by all of them;

Accordingly, it is ordered, This 19th day of May 1964, that the Petition for Extension of Procedural Dates filed on May 18, 1964, by Boardman Broadcasting Company is granted; and the following procedural schedule is adopted:

May 27, 1964, Exchange of written material.
June 1, 1964, Notification of witnesses desired for cross-examinations.
June 2, 1964, Hearing (continued from May 19, 1964).

Released: May 20, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5189; Filed, May 22, 1964; 8:49 a.m.]

[Docket Nos. 15419, 15420; FCC 64M-431]

CENTRAL BROADCASTING CORP. AND WCRB, INC.

Order Re Procedural Dates

In re applications of Central Broadcasting Corporation, Ware, Massachusetts, Docket No. 15419, File No. BPH-

4243; WCRB, Inc., Springfield, Massachusetts, Docket No. 15420, File No. BPH-4319; for construction permits.

As a result of agreements reached on the record of a prehearing conference held this date: *It is ordered*, This 18th day of May 1964, that:

(1) 307(b) exhibits will be exchanged on or before June 18, 1964,

(2) Notification of 307(b) witnesses shall be made on or before June 30, 1964, and

(3) The hearing now scheduled for June 22, 1964, is rescheduled to commence at 10:00 a.m., July 7, 1964, in the Commission's offices in Washington, D.C.

Released: May 19, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5190; Filed, May 22, 1964; 8:49 a.m.]

[Docket Nos. 15323-15325; FCC 64M-436]

INTEGRATED COMMUNICATION SYSTEMS, INC., OF MASSACHUSETTS, ET AL.

Memorandum Opinion and Order Amending Issues

In re applications of Integrated Communication Systems, Inc. of Massachusetts, Boston, Massachusetts, Docket No. 15323, File No. BPCT-3167; United Artists Broadcasting, Inc., Boston, Massachusetts, Docket No. 15324, File No. BPCT-3169; WGBH Educational Foundation, Boston, Massachusetts, Docket No. 15325, File No. BPCT-3277; for construction permits for new television broadcast stations.

1. A motion is pending by WGBH Educational Foundation that the Hearing Examiner enlarge the hearing issues to permit inquiry into:

> * * * whether the funds available to Integrated Communication Systems, Inc., of Massachusetts will give reasonable assurance that the proposals set forth in the application will be effectuated.

United Artists supports the request; Integrated Communication Systems (ICS) and the Broadcast Bureau oppose.

2. WGBH relies principally upon the Commission's "Final TV Broadcast Financial Data—1962" (Public Notice B-40706, Sept. 19, 1963) to support its contention that ICS is not likely to be able to carry out its programming proposals for the $150,000 at which it estimates its annual revenues and which it has budgeted for annual operating expenses. But those data raise at least as many questions as they answer and on occasion, as here, arguably support either side of the proposition for which they are advanced.

3. WGBH asserts, for example, that the total annual expense for all operating commercial UHF stations was more than $420,000 before depreciation. But this figure is an average for 73 stations and the same data for all stations reporting show a group of 25 stations with average total expenses before depreciation of approximately $85,000 annually (table 9, stations with revenues under $100,000). WGBH relies, too, upon the figure in table 9 of about $176,000 as the average annual operating expense figure before depreciation for the 34 commercial television stations with annual revenues in the $100,000—$200,000 range. Table 7, however, shows that 3 UHF stations in that revenue class reported profits after depreciation and that a UHF station doing less than $100,000 reported a profit of more than $50,000 after depreciation. ICS, quoting from the same data, appropriately notes the Commission's findings that "UHF stations as a group reported the highest revenues in their history despite the fact that there were many more UHF stations on the air in earlier years", that in 1962 approximately 57 percent of full-year UHF stations reported profitable operations as compared with only 40 percent in 1961, and that broadcast income in 1962 for 83 reporting UHF stations increased 250 percent as compared with the television industry total increase of 31.5 percent. Finally, the Commission in rejecting the objection to an assignment of permit looking to the reinstitution of a UHF service in Montgomery, Alabama (FCC 64-60, released Feb. 10, 1964) met a challenge to the assignee's sufficiency of funds and budgeting of costs by noting, among other things, that it expected UHF, at least in the early stages, to be undertaken with tight operating budgets and with limited financial and manpower resources.

4. By reason of all these considerations, the opposition would ordinarily prevail in its view that WGBH has not made a sufficient threshold showing to persuade that the issues should be enlarged. But another circumstance appears to have overriding weight. By its Memorandum Opinion and Order released May 5, 1964 (FCC 64R-248), the Review Board has added an issue to inquire into whether the staff proposed by ICS is adequate to permit the effectuation of its proposal. Since it has therefore been determined that there is substantial question as to this matter, it follows inevitably that the same question must be raised with respect to whether the funds are sufficient.

5. *Accordingly, it is ordered*, This 18th day of May 1964, that the "Motion That Hearing Examiner Enlarge Issues" is granted and that the issues are enlarged as follows: To determine whether the funds available to Integrated Communication Systems, Inc., of Massachusetts will give reasonable assurance that the proposals set forth in the application will be effectuated.

Released: May 19, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5191; Filed, May 22, 1964; 8:49 a.m.]

[Docket No. 15180; FCC 64M-437]

OTTAWA BROADCASTING CORP. (WJBL)

Order Re Procedural Dates

In re application of Ottawa Broadcasting Corporation (WJBL), Holland, Michigan, Docket No. 15180, File No. BP-15189; for construction permit.

The Hearing Examiner is persuaded that good cause is present for again putting off the hearing and that objection, as lodged by the Broadcast Bureau, does not properly lie at this stage in the development of this proceeding.

Accordingly, it is ordered, This 18th day of May, 1964, that the Petition of Ottawa Broadcasting Corporation for Changes of Certain Dates is granted, that the commencement date of the hearing is postponed from June 16 to July 28, 1964, and that the other procedural dates are rescheduled as follows: July 1 for the informal exchange of engineering material related to the question of interference to station WFBM; July 13 for the formal exchange of the applicant's entire direct case; and July 21 for the notification of any witnesses desired for cross-examination.

Released: May 19, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5192; Filed, May 22, 1964; 8:50 a.m.]

[Docket Nos. 15474, 15475; FCC 64M-435]

ROSWELL TELEVISION AND TAYLOR BROADCASTING CO.

Order Scheduling Hearing

In re applications of R. H. Parker and John Burroughs d/b as ROSWELL TELEVISION, Roswell, New Mexico, Docket No. 15474, File No. BPCT-3196; Taylor Broadcasting Company, Roswell, New Mexico, Docket No. 15475, File No. BPCT-3215; for construction permit for a new television broadcast station.

It is ordered, This 18th day of May 1964, that Thomas H. Donahue will preside at the hearing in the above-entitled proceeding which is hereby scheduled to commence on July 15, 1964, in Washington, D.C: *And, it is further ordered*, That a prehearing conference in the proceeding will be convened by the presiding officer at 10:00 a.m., June 15, 1964.

Released: May 19, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5193; Filed, May 22, 1964; 8:50 a.m.]

[Docket No. 15380; FCC 64M-427]

RICHARD H. SANDERS

Order Continuing Hearing

In the matter of Richard H. Sanders, Fort Lauderdale, Florida, Docket No. 15380; order to show cause why there should not be revoked the license for Radio Station 7W2005 in the Citizens Radio Service.

It is ordered, This 18th day of May 1964, on the Hearing Examiner's own motion, that the hearing scheduled to commence at 10:00 a.m., June 1, is con-

tinued to 10:00 a.m., June 2, 1964, at Fort Lauderdale, Florida.

Released: May 18, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5194; Filed, May 22, 1964; 8:50 a.m.]

[Docket No. 15322; FCC64M-438]

SPARTAN RADIOCASTING CO.

Order Scheduling Prehearing Conference

In re application of Spartan Radiocasting Company, Asheville, North Carolina, Docket No. 15322, File No. BPTTV-1996; for construction permit for new television broadcast translator station.

Upon the Hearing Examiner's own motion and pursuant to agreement of counsel: *It is ordered*, This 19th day of May 1964, that a further prehearing conference in the above-styled proceeding will be held on May 26, 1964, at 10:00 a.m., in the offices of the Commission in Washington, D.C., for the purpose of considering further procedure in the proceeding.

Released: May 20, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5195; Filed, May 22, 1964; 8:50 a.m.]

[Docket Nos. 15476, 15478; FCC 64M-432]

WEZY, INC., AND WKKO RADIO, INC.

Order Scheduling Hearing

In re applications of WEZY, Inc., Cocoa, Florida, Docket No. 15476, File No. BPH-4172; WKKO Radio, Inc., Cocoa, Florida, Docket No. 15477, File No. BPH-4173; for construction permits.

It is ordered, This 18th day of May 1964, that Basil P. Cooper will preside at the hearing in the above-entitled proceeding which is hereby scheduled to commence on July 13, 1964, in Washington, D.C.: *And it is further ordered*, That a prehearing conference in the proceeding will be convened by the presiding officer at 9:00 a.m., June 15, 1964.

Released: May 19, 1964.

FEDERAL COMMUNICATIONS COMMISSION,
[SEAL] BEN F. WAPLE,
Secretary.

[F.R. Doc. 64-5196; Filed, May 22, 1964; 8:51 a.m.]

FEDERAL MARITIME COMMISSION

WILH. WILHELMSEN AND BARBER-WILHELMSEN LINE

Notice of Filing of Agreement

Notice is hereby given that the following described agreement has been filed with the Commission for approval pursuant to section 15 of the Shipping Act, 1916 (39 Stat. 733; 75 Stat. 763; 46 U.S.C. 814):

Agreement 7589-3 between seven (7) Norwegian carriers under the control of Wilh. Wilhelmsen, operating pursuant to approved joint service Agreement 7589, as amended, in various world wide trades, modifies the said joint service agreement to provide that the operations of the Wilhelmsen carriers in the trade from ports in the Republic of the Philippines, China, Siberia, Hong Kong, Vietnam, Japan, Korea, Formosa and Manchuria to ports in Hawaii, Panama Canal Zone, and U.S. Pacific Coast ports and, via the Panama Canal, to U.S. Atlantic Coast ports, shall be designated and advertised under the trade name "Barber-Wilhelmsen Line".

Interested parties may inspect this agreement and obtain copies thereof at the Bureau of Foreign Regulation, Federal Maritime Commission, Washington, D.C., or may inspect a copy at the offices of the District Managers of the Commission in New York, N.Y., New Orleans, La., and San Francisco, Calif., and may submit to the Secretary, Federal Maritime Commission, Washington, D.C., 20573, within 5 days after publication of this notice in the FEDERAL REGISTER, written statements with reference to the agreement and their position as to approval, disapproval, or modification, together with a request for hearing, should such hearing be desired.

Dated: May 20, 1964.

By order of the Federal Maritime Commission.

THOMAS LISI,
Secretary.

[F.R. Doc. 64-5178; Filed, May 22, 1964; 8:48 a.m.]

FEDERAL POWER COMMISSION

[Docket Nos. RI64-281 etc.]

MONSANTO CHEMICAL CO.[1]

Order Shortening Suspension Periods

MAY 18, 1964.

The proposed changes in rates and charges of Respondents named herein were suspended for the five-month statutory period in the proceedings listed in the Appendix below. In view of our action taken in Lakeland Petroleum Corporation (Operator), et al., Docket No. RI64-363, order issued May 5, 1964, involving the same general problem presented here, we deem it to be in the public interest to shorten the suspension period of the supplements listed in the Appendix which contain increased rates exceeding the applicable area price ceilings because of the addition of the contractually provided for minimum guarantee of 1.0 cent per Mcf for liquids to each of the proposed rates. Under these circumstances we think it appropriate to shorten the suspension period of the subject supplements to the date of the issuance of this order, as hereinafter provided.

The Commission finds: It is necessary and proper in carrying out the provisions of the Natural Gas Act and the Regulations thereunder that the suspension periods of the supplements listed in the Appendix be shortened as hereinafter provided.

The Commission orders: The suspension periods for the supplements listed in the Appendix are hereby shortened to the date of issuance of this order, and thereafter until made effective as prescribed by the Natural Gas Act: *Provided, however*, That the supplements to the subject rate schedules filed by Respondents shall become effective subject to refund on the date of the issuance of this order if within 20 days from the date of the issuance of this order, each Respondent shall execute and file under his related docket number with the Secretary of the Commission his agreement and undertaking to comply with the refunding and reporting procedure required by the Natural Gas Act and § 154.102 of the regulation thereunder, accompanied by a certificate showing service of copies thereof upon the purchaser under the rate schedule involved. Unless each Respondent is advised to the contrary within 15 days after the filing of his agreement and undertaking, the subject agreement and undertaking shall be deemed to be accepted by the Commission.

By the Commission.

[SEAL] JOSEPH H. GUTRIDE,
Secretary.

APPENDIX

Docket No.	Respondent	Rate schedule No.	Supplement No.
RI64-281	Monsanto Chemical Co.	26	2
		32	1
		50	1
RI64-452	Ainslie Perrault (Operator), et al.	1	1
		2	1
RI64-453	Delhi-Taylor Oil Corp.	54	2
RI64-454	The Atlantic Refining Co.	180	9
RI64-455	Petroleum Corp. of Texas (Operator), et al.	1	2
RI64-456	American Petrofina Co. Texas.	16	17
		22	4
		23	4
		24	5
		26	14
		17	4
RI64-457	Robert P. Tinnin, et al.	1	2
RI64-458	James A. Brown, et al.	1	2
RI64-459	Great Lakes Natural Gas Corp.	1	3
RI64-466	Mountain States Natural Gas Corp.	6	2
RI64-467	D. H. Bolin	1	4
RI64-469	Frank A. Schultz, et al.	5	12
		8	9
RI64-470	Frank A. Schultz	7	12
RI64-471	J. Glenn Turner	7	18
RI64-472	C. W. Murchison	1	4
RI64-473	William G. Webb	3	18
RI64-475	Compass Exploration Inc. (Operator), et al.	4	5
RI64-476	Laurence C. Kelly, et al.	1	5
		1	4
RI64-478	Val R. Reese & Associates, Inc.	3	2
RI64-479	La Plata Gathering System, Inc.	3	3
RI64-480	Thomas J. Quigley, et al.	1	5
RI64-408	Humble Oil & Refining Co.	336	5
RI64-392	Dacresa Corp.	2	4
RI64-394	Beta Development Co.	1	9
RI64-366	Benson-Montin-Greer Drilling Corp.	4	8
RI64-634	International Oil & Gas Corp. (Operator), et al.	4	8
		6	9

[1] Additional proceedings involved in this order are contained in the body of the order.

APPENDIX—Continued

Docket No.	Respondent	Rate schedule No.	Supplement No.
RI64-604	Caulkins Oil Co. (Operator), agent for Caulkins Producing Co., et al.	5	1
RI64-605	W. H. Hudson (Operator), et al.	2	3
RI64-606	Caulkins Oil Co. (Operator), et al.	10	2
RI64-588	International Oil & Gas Corp.	1	4
RI64-587	W. P. Carr	2	12
RI64-474	H. H. Phillips, et al.	1	1 to 3
RI64-577	Murchison Trusts (Operator), et al.	1	3
RI64-525	J. C. Man, Jr	3	1
		2	1
RI64-474	H. H. Phillips, et al.	1	3
RI64-548	R. S. Murray, Jr., et al.	1	3
RI64-549	Marathon Oil Co	24	4
RI64-550	Marathon Oil Co. (Operator), et al.	55	2
RI64-524	K. Kimbell Oil Properties (Operator), et al.	1	3
		5	1
		6	2
		8	1
		10	1
		11	1
		12	2
RI64-527	E. P. Campbell (Operator), et al.	1	1
RI64-529	Kingwood Oil Co. (Operator), et al.	7	1
RI64-519	Skelly Oil Co	140	7
RI64-520	Skelly Oil Co. (Operator), et al.	157	4
RI64-504	Southern Union Production Co.	1	2
		10	2
RI64-506	Alex N. Campbell	1	1
RI64-507	R. N. Usher & Polly Usher.	1	1
RI64-509	John L. Morrison, et al.	1	5
RI64-497	Skelly Oil Co	116	4
RI64-501	Piedra Corp	1	2
RI64-367	H. O. Pool	2	1
RI64-306	Olen F. Featherstone	3	1
RI64-602	United States Smelting Refining and Mining Co.	4	3
RI64-670	Beta Development Co	1	11
RI64-671	Walter Duncan	4	2
RI64-667	Hugh McMillan	2	2
RI64-655	Standard Oil Co. of Texas, a division of California Oil Co.	29	4
RI64-642	Bayview Oil Corp	8	5
RI64-544	Pubco Petroleum Corp., (Operator), et al.	13	13
RI64-630	Northeast Blanco Development Corp. (Operator), et al.	1	6
RI64-563	Consolidated Oil & Gas Inc. (Operator), et al.	2	7
		6	1
		10	1
		15	1
		21	1
		11	1
RI64-564	Consolidated Oil & Gas, Inc.	5	1
		7	24
		8	1
		12	1
		14	2
		16	13
RI64-565	A. N. Brown (Operator), et al.	2	6
RI64-566	N. A. Steed (Operator), et al.	1	6
RI64-567	Elliot Production Co	3	2
RI64-568	Sunshine Royalty Co	2	2
RI64-541	Pubco Petroleum Corp.	1	26
		2	3
		3	3
		7	7
RI64-547	Superior Oil Co	94	1
RI64-551	Shiprock Industries Inc. (Operator), et al.	2	10
RI64-519	Skelly Oil Co	107	14
RI64-521	Feuille, R. H	1	3
		1	4
RI64-522	The British American Oil Producing Co.	48	6
RI64-483	Sinclair Oil & Gas Co. (Operator), et al.	272	6
RI64-484	Delhi-Taylor Oil Corp	14	6
		28	2
		31	2
		45	3
		51	4
RI64-485	Union Texas Petroleum, a division of Allied Chemical Corp. (Operator), et al.	33	2
		65	4
		53	2
RI64-489	Sinclair Oil & Gas Co. (Operator), et al.	289	3
RI64-491	Union Texas Petroleum, a division of Allied Chemical Corp. (Operator), et al.	26	5

APPENDIX—Continued

Docket No.	Respondent	Rate schedule No.	Supplement No.
RI64-493	Sinclair Oil & Gas Co	276	4
RI64-494	Thomas D. Bailey, et al	1	4
RI64-495	Skelly Oil Co	90	8
RI64-504	Southern Union Production Co.	5	11
RI64-508	Skelly Oil Co. (Operator), et al.	46	16
		141	15
RI64-451	Aztec Oil & Gas Co	1	6
		3	21
		10	7
		14	4
RI64-454	Atlantic Refining Co., The	178	4
		179	4
RI64-460	El Paso Natural Gas Products Co.	8	8
		4	3
RI64-462	Southwest Production Co.	9	1
		1	1
		3	1
		5	1
		6	1
		7	1
		8	1
		4	1
		11	1
		15	1
RI64-464	Southwest Production Co. (Operator), et al.	13	1
		3	10
RI64-475	Compass Exploration Inc. (Operator), et al.	7	8
		8	7
RI64-477	Joseph E. Seagram & Sons, Inc.	22	8
RI64-395	Continental Oil Company.	198	3
RI64-396	J. L. Mills, et al	1	1
RI64-387	Humble Oil & Refining Co.	162	3
RI64-388	Pan American Petroleum Corp.	109	9
		371	20
		302	4
RI64-389	Pan American Petroleum Corp. (Operator), et al.	199	15
		117	22
RI64-390	Sunray DX Oil Co	161	6
RI64-342	Austral Oil Co. Inc	21	3
RI64-358	Blockhaven Oil Co	3	21
RI64-319	Frontier Refining Co	4	3
RI64-320	Frontier Refining Co. (Operator), et al.	7	2

[F.R. Doc. 64-5112; Filed, May 22, 1964; 8:45 a.m.]

[Project No. 1426]

ALASKA HERRING PRODUCTS CO., INC.

Notice of Application for Surrender of License

MAY 8, 1964.

Public notice is hereby given that application has been filed under the Federal Power Act (16 U.S.C. 791a–825r) by Alaska Herring Products Co., Inc. (correspondence to: Mr. R. C. Deming, 1319 West Nickerson Street, Seattle 99, Washington), for surrender of the license for Project No. 1426, located on Sheckley Upper Lake, Sheckley Lower Lake, and Sheckley Creek flowing from the outlet of Sheckley Lower Lake into Port Armstrong, on the southerly end of Baranof Island, Alaska, and affecting lands of the United States within the Tongass National Forest.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington, D.C., 20426, in accordance with the rules of practice and procedure of the Commission (18 CFR 1.8 or 1.10). The last day upon which protests or petitions may be filed is July 6, 1964. The application is on file with the Commission for public inspection.

JOSEPH H. GUTRIDE,
Secretary.

[F.R. Doc. 64-5159; Filed, May 22, 1964; 8:46 a.m.]

[Docket Nos. AR64-1 etc.]

HUGOTON-ANADARKO AREA RATE PROCEEDINGS ET AL.

Order Permitting Withdrawal of Rate Filing and Terminating Proceeding

MAY 8, 1964.

Hugoton-Anadarko Area Rate Proceedings, Docket No. AR64-1, etc.; Mayflo Oil Company (Operator), et al., Docket No. RI62-362.[1]

On February 12, 1962, Mayflo Oil Company (Operator), et al. (Mayflo), tendered for filing Supplement No. 3 to its FPC Gas Rate Schedule No. 4, proposing an increased rate from 16.8 cents to 17.2 cents per Mcf (amounting to $720 annually) for its jurisdictional sales of natural gas to the Natural Gas Pipeline Company of America from the Camrick Field, Texas County, Oklahoma. By order issued March 20, 1962, the Commission suspended the proposed rate until August 21, 1962, and thereafter until made effective in the manner prescribed by the Natural Gas Act. The increased rate has not been made effective pursuant to section 4(e) of the Natural Gas Act.

On March 30, 1964, Mayflo tendered for filing another notice of change in its FPC Gas Rate Schedule No. 4. The proposed increased rate of 16.8 cents to 17.6 cents per Mcf at 14.65 psia, designated as Supplement No. 4 to Mayflo's FPC Gas Rate Schedule No. 4, has been suspended by separate order issued April 29, 1964, in Docket No. RI64-702. Since the filing in Docket No. RI64-702 supersedes the earlier filing, it has been construed as a request to withdraw the filing in Docket No. RI62-362. Good cause has been shown for permitting the withdrawal of the increased rate filing in Docket No. RI62-362 and to terminate the related suspension proceeding therein.

The Commission finds: It is necessary and proper in carrying out the provisions of the Natural Gas Act and the Regulations thereunder to permit the withdrawal of Supplement No. 3 to Mayflo's FPC Gas Rate Schedule No. 1, to sever the proceeding in Docket No. RI62-362 from the area rate proceeding in Docket Nos. AR64-1, et al., and to terminate the proceeding in Docket No. RI62-362.

The Commission orders:

(A) The withdrawal of Supplement No. 3 to Mayflo's FPC Gas Rate Schedule No. 4 is hereby permitted.

(B) The proceeding in Docket No. RI62-362 is hereby severed from the area rate proceeding in Docket Nos. AR64-1, et al.

(C) The proceeding in Docket No. RI62-362 is hereby terminated as moot.

By the Commission.

[SEAL] JOSEPH H. GUTRIDE,
Secretary.

[F.R. Doc. 64-5160; Filed, May 22, 1964; 8:46 a.m.]

[1] Consolidated with the area rate proceedings in Docket Nos. AR64-1, et al., by order issued November 27, 1963.

[Project No. 2454]

MINNESOTA POWER & LIGHT CO.

Notice of Application for License

MAY 8, 1964.

Public notice is hereby given that application has been filed under the Federal Power Act (16 U.S.C. 791a–825r) by Minnesota Power & Light Company (correspondence to: C. H. Seipp, Vice President-Financial, Minnesota Power & Light Company, 30 West Superior Street, Duluth, Minnesota, 55802) for license for constructed Project No. 2454, known as the Sylvan Project, located on Crow Wing and Gull River, in Cass, Crow Wing and Morrison Counties, Minnesota.

The project consists of: Dam and Reservoir—a concrete gravity dam and integral powerhouse 249 feet long, forming a static head of about 22 feet; an earth dike 800 feet long; a spillway section with seven vertical lift gates, one trash gate and two over flow sections topped by flashboards 4 feet high; a reservoir about 1,220 acres in area at normal pool level of 1177.0 feet; Intake and Powerhouse—an integral concrete powerhouse substructure and intake with three turbine pits and three hoist gate openings; a powerhouse superstructure of reinforced concrete, steel and brick, housing three hydroelectric units of 600 kilowatts each, and appurtenant facilities; Transmission Facilities—a 2.3/33 kv switchyard adjacent to the powerhouse; a 33 kv line to Riverton Substation; a 33 kv line to Pillager H.E. Station and Gull Lake Substation; a 33 kv line to Little Falls H.E. Station; a 2.3/7.2 kv switchyard; a 7.2 kv line to Sylvan—Gull Lake; and appurtenant electrical and mechanical facilities.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington, D.C., 20426, in accordance with the rules of practice and procedure of the Commission (18 CFR 1.8 or 1.10). The last day upon which protests or petitions may be filed is June 29, 1964. The application is on file with the Commission for public inspection.

JOSEPH H. GUTRIDE,
Secretary.

[F.R. Doc. 64–5161; Filed, May 22, 1964; 8:46 a.m.]

[Docket Nos. RI64–583, etc.]

A. N. BROWN ET AL.

Order Permitting Substitution of Rate Filings, Providing for Hearings on and Suspension of Proposed Changes in Rates [1]

MAY 15, 1964.

The above-named Respondents have tendered for filing proposed changes in presently effective rate schedules for sales of natural gas subject to the jurisdiction of the Commission. The proposed changes, which constitute increased rates and charges, are designated as follows:

Docket No.	Respondent	Rate schedule No.	Supplement No.	Purchaser and producing area	Amount of annual increase	Date filing tendered	Effective date unless suspended	Date suspended until—	Cents per Mcf		Rate in effect subject to refund in docket Nos.
									Rate in effect	Proposed increased rate	
RI64–583	A. N. Brown (Operator), et al., 708 Midland Savings Bldg., Denver, Colo., 80202.	1	1 to 7	El Paso Natural Gas Co. (Angel Peak-Gallup Field, San Juan County, N. Mex.).	(Decrease) ($6)	4–28–64	[2] 5–29–64	[3] 7– 9–64	[4] [5] 12.0536	[4] [5] [10] 12.0495	
RI64–432	Aztec Oil & Gas Co., 920 Mercantile Securities Bldg., Dallas 1, Tex., Attn: Mr. Quilman B. Davis.	7	1 to 16	Southern Union Gathering Co. (Dakota Formation, various fields, San Juan County, N. Mex.) (San Juan Basin Area).	14	4–17–64	[3] 5–18–64	[6] 6– 1–64	[7] [11] 14.0577	[7] [9] [10] 14.0593	
RI64–740	Texas Gas Producing Co. (Operator), et al., 633 Meadows Bldg., Dallas, Tex., 75206.	2	10	Mississippi River Fuel Corp. (Woodlawn Field, Harrison County, Tex.) (R.R. Dist. No. 6).	262	4–28–64	[12] 5–29–64	10–29–64	[16] [17] 14.1344	[13] [14] [15] [17] 14.6392	
RI64–741	Tenneco Oil Co. (Operator), et al., P.O. Box 2511, Houston, Tex	79	8	----do----	2,691	4–27–64	[3] 5–28–64	10–28–64	[17] [20] 14.0	[13] [14] [17] [18] 15.1397	
RI64–742	Union Texas Petroleum, a division of Allied Chemical Corp. (Operator), et al., P.O. Box 2120, Houston, Tex., 77001.	56	2	Cities Service Gas Co. (Moore Field, Cleveland County, Okla.) (Oklahoma "Other" Area).	2,212	4–30–64	[12] 6– 1–64	11– 1–64	[17] 11.0	[13] [14] [17] 12.0	
RI64–743	Helmerich & Payne, Inc., etal., 21st at Utica, Tulsa, Okla.	5	5	Northern Natural Gas Co. (Hugoton Field, Finney County, Kans.).	210	5– 1–64	[12] 6– 1–64	11– 1–64	[17] 11.0	[14] [17] [20] 12.0	
	----do----	8	4	Northern Natural Gas Co. (Hugoton Field, Haskell County, Kans).	180	5– 1–64	[12] 6– 1–64	11– 1–64	[17] 11.0	[14] [17] [20] 12.0	
RI64–744	Helmerich & Payne, Inc.	6	6	Northern Natural Gas Co. (Hugoton Field, Seward County, Kans).	580	5– 1–64	[12] 6– 1–64	11– 1–64	[17] 11.0	[14] [17] [20] 12.0	
RI64–745	Helmerich & Payne, Inc. (Operator), et al.	7	8	Northern Natural Gas Co. (Hugoton Field, Haskell and Seward Counties, Kans).	330	5– 1–64	[12] 6– 1–64	11– 1–64	[17] 11.0	[14] [17] [20] 12.0	

[2] The stated effective date is the first day after expiration of the required statutory notice.
[3] Suspension period is shortened to terminate concurrently with the suspension period in Docket No. RI64–583.
[4] Corrects rate increase filing of January 9, 1964 (Supplement No. 7) insofar as the tax reimbursement portion of the rate increase is concerned.
[5] Rate for gas delivered at 250 psig.
[6] Rate suspended in Docket No. RI64–583 until July 9, 1964.
[7] Corrects rate increase filing of November 26, 1963 (Supplement No. 16) insofar as the tax reimbursement portion of the rate increase is concerned.
[8] Suspension period is shortened to terminate concurrently with the suspension period in Docket No. RI64–432.
[9] Rate for gas produced from the Dakota Formation.
[10] Pressure base is 15.025 psia.
[11] Rate is suspended in Docket No. RI64–432 until June 1, 1964.
[12] The stated effective date is the effective date requested by Respondent.
[13] Periodic rate increase.
[14] Pressure base is 14.65 psia.
[15] Includes base rate of 14.5 cents per Mcf plus tax reimbursement.
[16] Includes base rate of 14.0 cents per Mcf plus tax reimbursement.
[17] Subject to a downward Btu adjustment.
[18] A portion of the property covered by the rate schedule is owned by the State of Texas, therefore the full tax is not imposed.
[19] Does not include tax reimbursement.
[20] Redetermined rate increase.

Tenneco Oil Company (Operator), et al. (Tenneco), requests an effective date of May 22, 1964, for their proposed rate increase. Good cause has not been shown for waiving the 30-day notice requirement provided in section 4(d) of the Natural Gas Act to permit an earlier effective date for Tenneco's rate filing and such request is denied.

The rate filing of A. N. Brown (Operator), et al. (Brown), was tendered to correct the tax reimbursement portion of a previous rate of 12.0536 cents per Mcf which was suspended by the Commission's order issued January 31, 1964, in Docket No. RI64–583, until July 9, 1964. The instant decreased rate of 12.0495 cents per Mcf is proposed to be substituted for the aforementioned suspended rate of 12.0536 cents per Mcf. We believe it would be in the public interest to permit Brown to substitute the instant decreased rate filing for the previous rate filing (designated as Supplement No. 7 to Brown's FPC Gas Rate Schedule No. 1) suspended in Docket No. RI64–583. The suspension period for the decreased rate filing to terminate concurrently with the suspension period (July 9, 1964) of Brown's original filing in said docket.

Aztec Oil & Gas Company's (Aztec) tendered a corrected filing reflecting an increased rate of 14.0593 cents per Mcf

[1] Does not consolidate for hearing or dispose of the several matters herein.

which Aztec proposes to be substituted for a previous rate of 14.0577 cents per Mcf contained in Supplement No. 16 to its FPC Gas Rate Schedule No. 7 and suspended by the Commission's order issued December 27, 1963, in Docket No. RI64–432, until June 1, 1964. Under the circumstances, we believe it would be in the public interest to permit Aztec to substitute the instant rate filing for the rate filing now under suspension in Docket No. RI64–432. The suspension period for Aztec's superseding rate filing to terminate concurrently with the suspension period (June 1, 1964) in the aforementioned docket.

With respect to the proposed increased rates and charges of the other producers' listed herein, they exceed the applicable area price levels for increased rates as set forth in the Commission's Statement of General Policy No. 61–1, as amended (18 CFR, Ch. I, Part 2, § 2.56).

The proposed changed rates and charges may be unjust, unreasonable, unduly discriminatory, or preferential, or otherwise unlawful.

The Commission finds:

(1) Good cause exists that Brown's tendered corrected rate filing, designated as Supplement No. 1 to Supplement No. 7 to Brown's FPC Gas Rate Schedule No. 1, be permitted to be substituted for the rate increase involved in the proceeding in Docket No. RI64–583, and be suspended in said docket until July 9, 1964, the expiration of the suspension period ordered therein for Brown's previous filing.

(2) Good cause exists that Aztec's tendered corrected rate filing, designated as Supplement No. 1 to Supplement No. 16 to Aztec's FPC Gas Rate Schedule No. 7, be permitted to be substituted for the rate increase involved in the proceeding in Docket No. RI64–432, and be suspended in said docket until June 1, 1964, the expiration date of the suspension period ordered therein for Aztec's previous filing.

(3) It is necessary and proper in the public interest and to aid in the enforcement of the provisions of the Natural Gas Act that the Commission enter upon hearings concerning the lawfulness of the proposed changes, and that the above-designated supplements be suspended and the use thereof deferred as hereinafter ordered.

The Commission orders:

(A) Supplement No. 1 to Supplement No. 7 to Brown's FPC Gas Rate Schedule No. 1 is hereby substituted for the previous rate filed in Docket No. RI64–583, and is suspended until July 9, 1964.

(B) Supplement No. 1 to Supplement No. 16 to Aztec's FPC Gas Rate Schedule No. 7 is hereby substituted for the previous rate filed in Docket No. RI64–432, and is suspended until June 1, 1964.

(C) Pursuant to the authority of the Natural Gas Act, particularly sections 4 and 15 thereof, the Commission's rules of practice and procedure, and the regulations under the Natural Gas Act (18 CFR Ch. I), public hearings shall be held upon dates to be fixed by notices from the Secretary concerning the lawfulness of the proposed increased rates and charges contained in the above-designated supplements.

(D) Pending hearings and decisions thereon, the above-designated rate supplements are hereby suspended and the use thereof deferred until the date indicated in the above "Date suspended until" column, and thereafter until such further time as they are made effective in the manner prescribed by the Natural Gas Act.

(E) Neither the supplements hereby suspended, nor the rate schedules sought to be altered thereby, shall be changed until these proceedings have been disposed of or until the periods of suspension have expired, unless otherwise ordered by the Commission.

(F) Notices of intervention or petitions to intervene may be filed with the Federal Power Commission, Washington, D.C., 20426, in accordance with the rules of practice and procedure (18 CFR 1.8 and 1.37(f)) on or before July 1, 1964.

By the Commission.

[SEAL] JOSEPH H. GUTRIDE, *Secretary.*

[F.R. Doc. 64–5111; Filed, May 22, 1964; 8:45 a.m.]

[Docket Nos. CP63–12, CP63–13]

MISSISSIPPI RIVER TRANSMISSION CORP. AND MISSISSIPPI RIVER FUEL CORP.

Notice of Further Postponement of Hearing

MAY 8, 1964.

Upon consideration of the request filed by Mississippi River Fuel Corporation and Mississippi River Transmission Corporation for further postponement of the hearing now scheduled to convene at 10:00 a.m., May 11, 1964;

Notice is hereby given that said hearing is postponed to 10:00 a.m., June 11, 1964.

By direction of the Commission.

JOSEPH H. GUTRIDE, *Secretary.*

[F.R. Doc. 64–5162; Filed, May 22, 1964; 8:46 a.m.]

[Project No. 2457]

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

Notice of Application for License

MAY 8, 1964.

Public notice is hereby given that application has been filed under the Federal Power Act (16 U.S.C. 791a–825r) by Public Service Company of New Hampshire (correspondence to: A. R. Schiller, President, Public Service Company of New Hampshire, 1087 Elm Street, Manchester, New Hampshire, 03105, and Ralph H. Wood, Counsel, Public Service Company of New Hampshire, 1087 Elm Street, Manchester, New Hampshire, 03105) for license for constructed Project No. 2457, known as the Eastman Falls Hydroelectric Plant, located on the Pemigewasset River, in the City of Franklin and the Towns of Hill, Bristol, New Hampton and Sanbornton, in Merrimack, Grafton, and Belknap Counties, New Hampshire.

The dam is situated across the Pemigewasset River in Franklin, New Hampshire, about 1.5 miles downstream and south of the Franklin Falls, Flood Control Dam. The concrete gravity-type dam is 341 feet long including a 301-foot spillway section which is 31 feet high and is built to elevation 301 feet, U.S.G.S. The spillway is topped by 6 feet of flashboards extending to elevation 307 feet, U.S.G.S. The dam creates a pond of approximately 467 acres. One 12.67 foot diameter steel penstock 14.6 feet long, and one 12.5 foot square reinforced concrete penstock 21.33 feet long convey water to the powerhouse which is divided into two sections and located on the west bank of the river. One water wheel is a horizontal Leffel, 1,727 hp and is direct connected to a 1,200 kw General Electric generator; the other a vertical S. Morgan Smith, 2,650 hp direct connected to a 1,800 kw General Electric generator. Total nameplate rating 3,000 kw. Each of the three step-up transformers is rated at 1,000 kva, giving a total capacity of 3,000 kva.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington, D.C., 20426, in accordance with the rules of practice and procedure of the Commission (18 CFR 1.8 or 1.10). The last day upon which protests or petitions may be filed is June 29, 1964. The application is on file with the Commission for public inspection.

JOSEPH H. GUTRIDE, *Secretary.*

[F.R. Doc. 64–5163; Filed, May 22, 1964; 8:46 a.m.]

[Docket No. CP64–203]

SOUTH TEXAS NATURAL GAS GATHERING CO.

Notice of Application

MAY 18, 1964.

Take notice that on March 10, 1964, as supplemented on March 12, 1964, South Texas Natural Gas Gathering Company (Applicant), Lincoln Liberty Life Building, Houston, Texas, filed in Docket No. CP64–203 an application pursuant to section 7(c) of the Natural Gas Act for a certificate of public convenience and necessity authorizing the construction during the fiscal year July 1, 1964, to July 1, 1965, and the operation of gas purchase facilities to enable Applicant to take into its certificated main pipeline system natural gas which will be purchased from producers thereof, all as more fully set forth in the application, as supplemented, which is on file with the Commission and open to public inspection.

The purpose of this "budget-type" application is to augment Applicant's ability to act with reasonable dispatch in contracting for and connecting to its pipeline system new supplies of natural gas in various producing areas generally coextensive with said system.

The total cost of the proposed facilities will not exceed a maximum of $1,000,000, with no single project to exceed a cost

of $250,000, which costs will be financed from funds on hand, from cash generated from operations and from internal sources.

This matter is one that should be disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that preliminary staff analysis has indicated that there are no problems which would warrant a recommendation that the Commission designate this application for formal hearing before an examiner and that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing may be held without further notice before the Commission on this application provided no protest or petition to intervene is filed within the time required herein. Where a protest or petition for leave to intervene is timely filed, or where the Commission on its own motion believes that a formal hearing is required, further notice of such hearing will be duly given.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for Applicant to appear or be represented at the hearing.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington, D.C., 20426, in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before June 12, 1964.

JOSEPH H. GUTRIDE,
Secretary.

[F.R. Doc. 64-5164; Filed, May 22, 1964; 8:46 a.m.]

FEDERAL RESERVE SYSTEM

THE FIRST NATIONAL BANK OF TAMPA AND UNION SECURITY & INVESTMENT CO.

Order Approving Applications Under Bank Holding Company Act

In the matter of the applications of The First National Bank of Tampa and Union Security & Investment Co. for approval of the acquisition of voting stock of Second National Bank of Tampa, Tampa, Florida.

There have come before the Board of Governors, pursuant to section 3(a)(1) of the Bank Holding Company Act of 1956 (12 U.S.C. 1842(a)) and § 222.4(a)(1) of Federal Reserve Regulation Y (12 CFR 222.4(a)(1)), applications on behalf of The First National Bank of Tampa and Union Security & Investment Co., both of Tampa, Florida, for the Board's approval of the acquisition by Union Security & Investment Co. of 20,000 shares (80 percent) of the voting stock of the Second National Bank of Tampa, Tampa, Florida, a proposed new bank.

As required by section 3(b) of the Act, notice of receipt of the applications was given to, and views and recommendation requested of, the Comptroller of the Currency. He recommended approval of the applications. Notice of receipt of the applications was published in the FEDERAL REGISTER on January 8, 1964 (29 F.R. 204), which provided an opportunity for submission of comments and views regarding the proposed acquisition. Time for filing such comments and views has expired and all comments and views filed with the Board have been considered by it.

It is ordered. For the reasons set forth in the Board's Statement[1] of this date, that said application be and hereby are approved, provided that the acquisition so approved shall not be consummated (a) within seven calendar days after the date of this Order or (b) later than three months after said date, and provided further that the Second National Bank of Tampa shall be opened for business not later than six months after said date.

Dated at Washington, D.C., this 18th day of May, 1964.

By order of the Board of Governors.[2]

[SEAL] MERRITT SHERMAN,
Secretary.

[F.R. Doc. 64-5165; Filed, May 22, 1964; 8:47 a.m.]

INTERSTATE COMMERCE COMMISSION

FOURTH SECTION APPLICATIONS FOR RELIEF

MAY 20, 1964.

Protests to the granting of an application must be prepared in accordance with Rule 1.40 of the general rules of practice (49 CFR 1.40) and filed within 15 days from the date of publication of this notice in the FEDERAL REGISTER.

LONG-AND-SHORT HAUL

FSA No. 39035: *Commodity rates—Sea-Land Service, Inc.* Filed by Sea-Land Service, Inc. (No. 56), for itself and interested carriers. Rates on iron sand, in trailer-loads, from Springville, N.Y., to Los Angeles and Los Angeles "J", Calif.

Grounds for relief: All-rail competition.

Tariff: Supplement 51 to Sea-Land Service, Inc., tariff I.C.C. 14.

FSA No. 39036: *Gravel from Attica, Ind.* Filed by Illinois Freight Association, agent (No. 248), for and on behalf of Wabash Railroad Co. Rates on gravel, as described in the application, in carloads, from Attica, Ind., to Sadorus and Ivesdale, Ill.

Grounds for relief: Truck competition.

Tariff: Supplement 192 to Wabash Railroad Co. tariff I.C.C. 7844.

FSA No. 39037: *Liquid caustic soda from Wichita, Kans.* Filed by Western Trunk Line Committee, agent (No. A-2359), for interested rail carriers. Rates on liquid caustic soda, in tank carloads, from Wichita, Kans., to specified points in Florida and Georgia.

Grounds for relief: Market competition.

Tariff: Supplement 134 to Western Trunk Line Committee, agent, tariff I.C.C. A-4396.

FSA No. 39038: *Gravel from Riverton, Ind., to Odin, Ill.* Filed by Illinois Freight Association, agent (No. 249), for and on behalf of Illinois Central Railroad Co. Rates on gravel, as described in the application, in carloads, from Riverton, Ind., to Odin, Ill.

Grounds for relief: Truck competition.

Tariff Supplement 115 to Illinois Central Railroad Co. tariff I.C.C. A-11687.

By the Commission.

[SEAL] HAROLD D. MCCOY,
Secretary.

[F.R. Doc. 64-5170; Filed, May 22, 1964; 8:47 a.m.]

[Notice 988-A]

MOTOR CARRIER TRANSFER PROCEEDINGS

MAY 21, 1964.

Synopses of orders entered pursuant to section 212(b) of the Interstate Commerce Act, and rules and regulations prescribed thereunder (49 CFR Part 179), appear below:

As provided in the Commission's special rules of practice any interested person may file a petition seeking reconsideration of the following numbered proceedings within 20 days from the date of publication of this notice. Pursuant to section 17(8) of the Interstate Commerce Act, the filing of such a petition will postpone the effective date of the order in that proceeding pending its disposition. The matters relied upon by petitioners must be specified in their petitions with particularity.

No. MC-FC 66876. By order of May 13, 1964, the Transfer Board approved the transfer to Reliable Transfer, Inc., Uniontown, Pa., of Certificates Nos. MC 21996 and MC 21996 (Sub-No. 2) issued March 28, 1958 and December 1, 1961, respectively, to Harold E. Williams, doing business as Reliable Transfer, Uniontown, Pa., authorizing the transportation, over irregular routes, of general commodities, excluding household goods and commodities in bulk, between Uniontown, Pa., on the one hand, and, on the other, points in Pennsylvania within 20 miles of Uniontown; between points in Fayette County, Pa., on the one hand, and, on the other, points in 12 West Virginia counties, and 2 Maryland Counties; sugar, from Baltimore, Md., to Uniontown, Pa., and points in Pennsylvania within 30 miles of Uniontown; plumbing goods, from Uniontown, Pa., to New York, N.Y., and points in New York and New Jersey within 20 miles

[1] Filed as part of the original document. Copies available upon request to the Board of Governors of the Federal Reserve System, Washington, D.C., 20551, or to the Federal Reserve Bank of Atlanta. Dissenting statement of Governor Robertson also filed as part of the original document and available upon request.

[2] Voting for this action: Chairman Martin, and Governors Balderston, Mills, and Shepardson. Voting against this action: Governors Robertson and Mitchell. Not participating: Governor Daane.

of New York, N.Y.; packinghouse products, and other commodities dealt in by packing houses, screen doors, flour, feed, grain, sugar, and Christmas trees, from Uniontown, Connellsville and Greensburg, Pa., to points in 4 Pennsylvania Counties and 9 West Virginia Counties; household goods, between points in 5 Pennsylvania Counties, on the one hand, and, on the other, points in Delaware, Maryland, New Jersey, New York, Ohio, Virginia, West Virginia, and the District of Columbia; telephone, telegraph, and power-line construction materials, supplies, and poles, between Uniontown, Pa., and points within 10 miles of Uniontown, points in 5 Pennsylvania Counties, and points in Monongalia County, W. Va.; and meats, meat products, meat byproducts, dairy products, and articles distributed by meat packing houses, from Uniontown, Connellsville, and Greensburg, Pa., to points in Pennsylvania on and south of U.S. Highway 322, and on and west of U.S. Highway 219, and points in Tucker County, W. Va. Ira B. Coldren, Jr., 712 Gallatin Bank Building, Uniontown, Pa., 15401, attorney for applicants.

[SEAL] HAROLD D. McCOY, *Secretary.*

[F.R. Doc. 64-5224; Filed, May 22, 1964; 8:51 a.m.]

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PART II

FEDERAL REGISTER

VOLUME 29 NUMBER 102

Washington, Saturday, May 23, 1964

Federal Aviation Agency

[14 CFR Part 27 [New]]

Proposed Airworthiness Standards: Normal Category Rotorcraft

FEDERAL AVIATION AGENCY

[14 CFR Parts 6, 27 [New]]

[Reg. Doc. No. 5074; Notice 64-29]

AIRWORTHINESS STANDARDS; NORMAL CATEGORY ROTORCRAFT

Notice of Proposed Rule Making

The Federal Aviation Agency is considering a proposal to recodify present Part 6 of the Civil Air Regulations into Part 27 [New].

Interested persons are invited to participate in the proposed recodification by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket or notice number and be submitted in duplicate to the Federal Aviation Agency, Office of the General Counsel: Attention Rules Docket, 800 Independence Avenue SW., Washington, D.C., 20553. All communications received within 60 days after publication of this notice in the FEDERAL REGISTER will be considered by the Administrator before taking action on the proposed recodification. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available in the rules docket for examination by interested persons, both before and after the closing date for comments.

Proposed Part 27 [New] contains the airworthiness requirements for rotorcraft to be certificated in the normal category. The procedural requirements of Part 6 are being transferred to Part 21 [New], soon to be issued as a notice of proposed rule making.

The object of Part 27 [New] is to restate existing regulations, not to make new ones. The pertinent provisions have been freely reworded and rearranged, subject to every precaution against disturbing existing rights, privileges, duties, or functions. In addition, in cases where well established administrative practice or construction has established authoritative interpretations, the revised language reflects the interpretations.

Each proposed recodified section is followed by a note citing the present section of the regulations upon which it is based. A cross-reference table has been placed at the end of Part 27 [New] to permit easy access from the old regulations to the new. Internal cross references to parts or sections that are not yet recodified contain a blank space for later insertion of the correct recodified number with the present number contained in brackets. When a part or section that is referred to in a cross reference is later recodified, the correct number will be inserted and the bracketed number will be dropped.

No substantive changes involving an increased burden on the public have been made in the regulations, the purpose of the recodification project being simply to streamline and clarify present regulatory language and to delete obsolete or redundant provisions. It should be noted that the definitions, abbreviations, and rules of construction contained in Part 1 [New] published in the FEDERAL REGISTER on May 15, 1962 (27 F.R. 4587), would apply to the proposed rules. In addition, those definitions in present Part 6 (and not now in Part 1 [New] or executed in proposed Part 27 [New]) that are necessary, will be added to Part 1 [New] prior to the adoption of Part 27 [New].

Present CAR 6.461 requires that certain pebble ingestion requirements be met when turbine engines are operated "from idle to the start of takeoff". This language is considered to be ambiguous and is clarified in proposed FAR 27.519 to require that the prescribed conditions be met "from idle power and r.p.m. to the power and r.p.m. necessary for lift-off".

Present CAR 6.306 requires that certain values contained in the publication ANC-17 be used for design purposes. This publication has been replaced with the publication MIL HDBK-17. This change is accordingly reflected in proposed FAR 27.263.

The note material following present § 6.237(a), containing an acceptable method for showing compliance with that paragraph when an effective mass is used for analysis, has been placed in proposed Appendix A.

Preliminary study indicates that references to "miles" and "miles per hour" should be standardized in terms of nautical measurement. When this Part is finally adopted, it is therefore proposed to use the terms "nautical mile" and "knot" where "mile" and "miles per hour" are now used. Nautical equivalents of existing values will be used, so that no increases in burden will result. Comment is specifically invited on this matter.

When finally adopted, Part 27 [New] will include the substance of any applicable rules or amendments adopted and made effective during the period between the date of notice and the effective date of the final rule, and may also include applicable rules on which individual notices of proposed rule making have been issued and the comment period has expired, but which have not been theretofore adopted.

In consideration of the foregoing it is proposed to amend Chapter I of Title 14 of the Code of Federal Regulations by deleting Part 6 and adding a Part 27 [New] reading as hereinafter set forth.

This proposal is made under the authority of §§ 313(a), 601, and 603 of the Federal Aviation Act of 1958 (72 Stat. 752, 775, 776; 49 U.S.C. 1354(a), 1421, and 1423).

Issued in Washington, D.C., on May 18, 1964.

N. E. HALABY,
Administrator.

PART 27—AIRWORTHINESS STANDARDS: NORMAL CATEGORY ROTORCRAFT

Subpart A—General

Subpart B—Flight

Subpart C—Structure

Subpart D—Design and Construction

AUTHORITY: The provisions of this Part 27 [New] issued under secs. 313(a), 601, and 603 of the Federal Aviation Act of 1958, 72 Stat. 752, 775, 776; 49 U.S.C. 1354(a), 1421, and 1423.

Subpart A—General

§ 27.1 Applicability.

This part prescribes airworthiness standards for the issue of, and changes to, type and supplemental type certificates for normal category rotorcraft with maximum weights of 6,000 pounds or less. Each person who applies under Part 21 [New] of this chapter for such a certificate or change must show compliance with the applicable requirements in this part.

[Revision note: 1st sentence based on § 6.0; 2d sentence supplied]

Subpart B—Flight

GENERAL

§ 27.21 Proof of compliance.

(a) Each requirement of this subpart must be complied with at each appropriate combination of weight and center of gravity within the range of loading conditions for which certification is requested. This must be shown—

(1) By tests upon a rotorcraft of the type for which certification is requested, or by calculations based on, and equal in accuracy to, the results of testing; and

(2) By systematic investigation of all required combinations of weight and center of gravity, if compliance cannot be reasonably inferred from combinations investigated.

(b) The controllability, stability, and trim of the rotorcraft must be shown for all altitudes up to the maximum expected in operation.

[Revision note: Based on § 6.100 (a) through (c)]

§ 27.23 Weight limitations.

(a) *Maximum weight.* The maximum weight, that is, the greatest weight for which compliance with every applicable requirement of this part is shown, must be established so that it is—

(1) Not greater than—

(i) The weight selected by the applicant;

(ii) The design maximum weight, that is, the greatest weight for which compliance with every applicable structural loading condition of this part is shown; or

(iii) The greatest weight for which compliance with every applicable flight requirement of this part is shown; and

(2) Not less than the sum of—

(i) The empty weight determined under § 27.29;

(ii) The weight of usable fuel appropriate to the intended operation with full payload;

(iii) The weight of full oil capacity; and

(iv) For each seat, 170 pounds or any lesser weight for which certification is requested.

(b) *Minimum weight.* The minimum weight, that is, the lowest weight for which compliance with every applicable requirement of this part is shown, must be established so that it is—

(1) Not greater than the sum of—

(i) The empty weight determined under § 27.29;

(ii) The weight of the minimum crew necessary to operate the rotorcraft, assuming for each crewmember a weight no greater than 170 pounds, or any lesser weight selected by the applicant or included in the loading instructions; and

(iii) The weight of the oil quantity determined under § 27.485(b); and

(2) Not less than—

(i) The lowest weight selected by the applicant;

(ii) The design minimum weight, that is, the lowest weight for which compliance with every applicable structural loading condition of this part is shown; or

(iii) The lowest weight for which compliance with every applicable flight requirement of this part is shown.

[Revision note: Based on § 6.101]

§ 27.25 Center of gravity limitations and loading instructions.

(a) A limit rearward and a limit forward center of gravity must be established for each weight established under § 27.23. No such limit may lie beyond—

(1) The extremes selected by the applicant;

(2) The extremes for which the structure is proven; or

(3) The extremes for which compliance with all applicable flight requirements is shown.

(b) Loading instructions must be provided for each possible loading condition between the maximum and minimum weights specified in § 27.23 that can result in a center of gravity beyond any limit prescribed in paragraph (a) of this section, assuming all probable occupant weights.

[Revision note: Based on § 6.102]

§ 27.27 Main rotor speed and pitch limits.

(a) *Main rotor speed limits.* A range of main rotor speeds must be established that—

(1) With power on, provides adequate margin to accommodate all variations in rotor speed occurring in all appropriate maneuvers, and is consistent with the kind of synchronizer or governor used; and

(2) With power off, permits all appropriate autorotative maneuvers to be performed throughout all ranges of airspeed and weight for which certification is requested.

(b) *Normal rotor pitch limits.* Means must be provided to limit the range of main rotor pitch settings so that—

(1) With power on, and within approved engine limitations, the normal high pitch limit prevents main rotor speeds substantially less than the minimum approved for any flight condition; and

(2) With power off, the low pitch limit provides main rotor speeds within the approved range for all autorotative conditions under the most critical combinations of weight and airspeed.

(c) *Emergency high pitch.* A main rotor pitch higher than the normal high pitch limit prescribed in paragraph (b)(1) of this section may be made available for emergency use if the normal high pitch limit cannot be exceeded inadvertently.

[Revision note: Based on § 6.103]

§ 27.29 Empty weight and corresponding center of gravity.

(a) The empty weight and corresponding center of gravity must be determined by weighing the rotorcraft without the weight of crew and payload, but with the weight of—

(1) All fixed ballast;

(2) All unusable fuel;

(3) All undrainable oil;

(4) All engine coolant; and

(5) All hydraulic fluid.

(b) The condition of the rotorcraft when weighed under paragraph (a) of this section must be easily reproducible and well defined, particularly with respect to the weights of fuel, oil, coolant, and installed equipment.

[Revision note: Based on § 6.104]

§ 27.31 Removable ballast.

Removable ballast may be used in showing compliance with the flight requirements of this part.

[Revision note: Based on § 6.105]

PERFORMANCE

§ 27.41 Standard atmosphere and still air.

Sections 27.43 through 27.53 must be complied with in standard atmosphere and still air.

[Revision note: Based on § 6.110]

§ 27.43 Takeoff.

(a) The rotorcraft, with takeoff power and r.p.m., and with the limit forward center of gravity, must be able to be taken off, without exceptional piloting skill or exceptionally favorable conditions, in such a manner that a landing can be made safely at any point along the flight path if an engine fails.

(b) Paragraph (a) of this section must be complied with throughout the ranges of—

(1) Altitude, from standard sea level conditions to the maximum altitude capability of the rotorcraft, or 7,000 feet, whichever is less; and

(2) Weight, from the maximum weight (at sea level) to all lesser weights selected by the applicant for each altitude covered by subparagraph (1) of this paragraph.

(c) The rotorcraft flight manual must contain—

(1) In its performance information section, all pertinent information concerning the takeoff weights and altitudes used in compliance with paragraph (b) of this section; and

(2) In its operating procedures section, all pertinent information concerning the takeoff procedure, including—

(i) The takeoff surface used in the tests; and

(ii) Each appropriate climbout speed.

[Revision note: Based on § 6.111]

§ 27.45 Climb.

(a) For rotorcraft other than helicopters—

(1) The steady rate of climb, at V_Y and with maximum continuous power and the landing gear retracted, must be determined for all weights, altitudes, and temperatures for which certification is requested; and

(2) The climb gradient, at the rate of climb determined in accordance with subparagraph (1) of this paragraph must be at least 1:6 under standard sea level conditions.

(b) For helicopters, V_Y must be determined—

(1) Under standard sea level conditions;

(2) At maximum weight; and

(3) With all engines at maximum continuous power.

(c) For multiengine helicopters, the steady rate of climb (or descent), at V_Y (or at the speed for minimum rate of descent), must be determined with—

(1) Maximum weight;

(2) One engine inoperative; and

(3) All other engines at maximum continuous power.

[Revision note: Based on § 6.112]

§ 27.47 Performance at minimum operating speed.

(a) For helicopters—

(1) The hovering ceiling must be determined over all ranges of weight, altitude, and temperature for which certification is requested, with—

(i) Takeoff power;

(ii) The landing gear extended; and

(iii) The helicopter in the ground effect at a height consistent with normal takeoff procedures; and

(2) The hovering ceiling determined under subparagraph (1) of this paragraph must be at least—

(i) For reciprocating-engine-powered helicopters, 4,000 feet at maximum weight with a standard atmosphere; or

(ii) For turbine-powered helicopters, 2,500 feet pressure altitude at maximum weight at a temperature of standard +40 degrees F.

(b) For rotorcraft other than helicopters, the steady rate of climb at the minimum operating speed must be determined, over the range of weights, altitudes, and temperatures for which certification is requested, with—

(1) Takeoff power; and

(2) The landing gear extended.

[Revision note: Based on § 6.113]

§ 27.49 Autorotative or one-engine-inoperative landing.

(a) The rotorcraft must be able to be landed with no excessive vertical acceleration, no tendency to bounce, nose over, ground loop, porpoise, or water loop, and without exceptional piloting skill or exceptionally favorable conditions, with—

(1) Approach or glide speeds appropriate to the type of rotorcraft and chosen by the applicant;

(2) The approach and landing made with—

(i) Power off, for single-engine rotorcraft; and

(ii) One engine inoperative, for multiengine rotorcraft; and

(3) The approach and landing entered from steady autorotation.

(b) All pertinent landing procedures, including the landing surface and appropriate approach and glide airspeeds, must be recorded in the operating procedures section of the rotorcraft flight manual.

[Revision note: Based on § 6.114]

§ 27.51 Power-off landings for multiengine rotorcraft.

Multiengine rotorcraft must be able to be landed safely after complete power failure under normal operating conditions.

[Revision note: Based on § 6.115]

§ 27.53 Limiting height—speed envelope.

(a) If there is any combination of height and forward speed (including hover) under which a safe landing cannot be made under the applicable power failure condition in paragraph (b) of this section, a limiting height-speed envelope must be established (including all pertinent information) for that condition, throughout all ranges of—

(1) Altitude, from standard sea level conditions to the maximum altitude capability of the rotorcraft, or 7,000 feet, whichever is less; and

(2) Weight, from the maximum weight (at sea level) to all lesser weights selected by the applicant for each altitude covered by subparagraph (1) of this paragraph.

(b) The applicable power failure conditions are—

(1) For single-engine helicopters, full autorotation;

(2) For multiengine helicopters, one engine inoperative (where engine isolation features ensure continued operation of the remaining engines); and

(3) For other rotorcraft, conditions appropriate to the type.

[Revision note: Based on § 6.116]

FLIGHT CHARACTERISTICS

§ 27.63 General.

The rotorcraft must—

(a) Conform with this section and with §§ 27.65 through 27.69 at all normally expected operating altitudes, under all critical loading conditions within the range of weights and centers of gravity for which certification is requested, and under all conditions of speed, power, and rotor r.p.m. for which certification is requested;

(b) Be able to maintain any required flight condition and make a smooth transition from any flight condition to any other flight condition without exceptional piloting skill, alertness, or strength, and without danger of exceeding the limit load factor under all operating conditions probable for the type, including sudden powerplant failure;

(c) Have all additional characteristics required by the Administrator for night or instrument operation, if certification for such operation is requested; and

(d) If turbine powered, meet the requirements of paragraphs (a) through (c) of this section without engine combustion flameout and notwithstanding any compressor stall or surge.

[Revision note: Combines §§ 6.120 and 6.401 (c)]

§ 27.65 Controllability and maneuverability.

(a) The rotorcraft must be safely controllable and maneuverable—

(1) During steady flight; and

(2) During all maneuvers appropriate to the type, including—

(i) Takeoff;

(ii) Climb;

(iii) Level flight;

(iv) Turning flight;

(v) Glide;

(vi) Landing (power on and power off); and

(vii) Recovery to power-on flight from a balked autorotative approach.

(b) The margin of cyclic control must allow satisfactory roll and pitch control—

(1) At V_{NE}, with—

(i) Maximum weight;

(ii) Critical center of gravity;

(iii) Critical rotor r.p.m.; and

(iv) Power on and power off; and

(2) At V_H or V_{NE}, whichever is less, with—

(i) Failure of power; and

(ii) Conditions in subdivisions (i) through (iii) of subparagraph (1) of this paragraph.

(c) A maximum wind velocity of not less than 20 miles per hour must be established in which the rotorcraft can be operated without loss of control on or near the ground in any maneuver appropriate to the type (such as crosswind takeoffs, sideward flight, and rearward flight), with—

(1) Critical weight;

(2) Critical center of gravity; and

(3) Critical rotor r.p.m.

(d) The rotorcraft, after power failure, must be controllable over the range of speeds and altitudes for which certification is requested, when the power failure occurs under maximum continuous power and critical weight. No corrective action time delay for any condition following power failure may be less than—

(1) For the cruise condition, one second, or normal pilot reaction time (whichever is greater); and

(2) For any other condition, normal pilot reaction time.

[Revision note: Based on § 6.121]

§ 27.67 Trim control.

The trim control—

(a) Must trim all steady longitudinal and lateral control forces to zero with the rotorcraft in level flight at any speed appropriate to the type; and

(b) May not introduce any undesirable discontinuities in control force gradients.

[Revision note: Based on § 6.122]

§ 27.69 Stability.

(a) *General.* It must be shown that the rotorcraft can be flown, without undue pilot fatigue or strain, in all normal maneuvers for a period of time as long as that expected in normal operation. At least three landings and takeoffs must be performed during this demonstration.

(b) *Static longitudinal stability.* The longitudinal cyclic control must be designed so that, for the ranges of altitude and rotor r.p.m. for which certification is requested, and with throttle and collective pitch held constant during the maneuvers specified in paragraphs (c) and (d) of this section—

(1) A rearward movement of the control is necessary to obtain airspeeds less than the trim speed; and

(2) A forward movement of the control is necessary to obtain airspeeds greater than the trim speed.

However, the stick position versus speed curve may have a negative slope within the speed ranges specified for each maneuver in paragraph (c) of this section if the necessary negative stick displacement is not greater than ten percent of the total stick travel.

(c) *Test maneuvers.* The following maneuvers must be performed:

(1) Climb at all speeds from 0.85 V_Y to 1.2 V_Y, with—

(i) Critical weight;

(ii) Critical center of gravity;

(iii) Maximum continuous power;

(iv) The landing gear retracted; and

(v) The rotorcraft trimmed for V_Y.

(2) Cruise at all speeds from 0.7 V_H or 0.7 V_{NE}, whichever is less, to 1.1 V_H or 1.1 V_{NE}, whichever is less, with—

(i) Critical weight;

(ii) Critical center of gravity;

(iii) Power for level flight at 0.9 V_H or 0.9 V_{NE}, whichever is less;

(iv) The landing gear retracted; and

(v) The rotorcraft trimmed for 0.9 V_H or 0.9 V_{NE}, whichever is less.

(3) Autorotation throughout the speed range for which certification is requested, with—

(i) Critical weight;

(ii) Critical center of gravity;

(iii) Power off;

(iv) The landing gear (*a*) retracted and (*b*) extended; and

(v) The rotorcraft trimmed for the speed for minimum rate of descent.

(d) *Hovering.* For helicopters—

(1) In the hovering condition, the longitudinal cyclic control must operate with the sense and direction of motion prescribed in paragraph (b) of this section; and

(2) The stick position curve must have a stable slope between the maximum approved rearward speed and a forward speed of 20 miles per hour, with—

(i) Critical weight;

(ii) Critical center of gravity;

(iii) Power required for hovering in still air;

(iv) The landing gear retracted; and

(v) The helicopter trimmed for hovering.

[Revision note: Based on § 6.123]

GROUND AND WATER HANDLING CHARACTERISTICS

§ 27.79 General.

The rotorcraft must have satisfactory ground and water handling characteristics, including freedom from all uncontrollable tendencies in all conditions expected in operation.

[Revision note: Based on § 6.130]

§ 27.81 Ground resonance.

The rotorcraft when on the ground, may have no uncontrollable tendency to oscillate with the rotor turning.

[Revision note: Based on § 6.131]

§ 27.83 Spray characteristics.

If certification for water operation is requested, no spray characteristics during taxiing, takeoff, or landing may obscure the vision of the pilot or damage the rotors, propellers, or other parts of the rotorcraft.

[Revision note: Based on § 6.132]

MISCELLANEOUS FLIGHT REQUIREMENTS

§ 27.93 Vibration.

Each part of the rotorcraft must be free from excessive vibration under all appropriate conditions of speed and power.

[Revision note: Based on § 6.140 (vibration aspect)]

Subpart C—Structure

GENERAL

§ 27.121 Loads; factor of safety.

(a) Strength requirements are specified in terms of limit loads and ultimate loads. Unless otherwise provided, all specified loads are limit loads.

(b) Unless otherwise provided, the specified air, ground, and water loads must be placed in equilibrium with inertia forces, considering all items of mass in the rotorcraft. These loads must be distributed in a manner closely approximating or conservatively representing actual conditions.

(c) If deflections under load would significantly change the distribution of external or internal loads, this redistribution must be taken into account.

(d) Unless otherwise specified, a factor of safety of 1.5 must be used. This factor applies to external and inertia loads unless its application to the resulting internal stresses is more conservative.

[Revision note: Based on § 6.200]

§ 27.123 Strength and deformation.

(a) The structure must be able to support limit loads without detrimental, permanent deformation. At all loads up to limit loads, the deformation may not interfere with safe operation of the rotorcraft.

(b) The structure must be able to support ultimate loads without failure. This must be shown by—

(1) Applying ultimate loads to the structure in a static test for at least three seconds; or

(2) Dynamic tests simulating actual load application.

[Revision note: Based on § 6.201]

§ 27.125 Proof of structure.

(a) Compliance with the strength and deformation requirements of this subpart must be shown for all critical loading conditions. Structural analysis may be used only if the structure conforms to those for which experience has shown this method to be reliable. In all other cases, substantiating load tests must be made.

(b) Proof of compliance with the strength requirements of this subpart must include—

(a) Dynamic and endurance tests of rotors, rotor drives, and rotor controls;

(b) Limit load tests of the control system, including control surfaces;

(c) Operation tests of the control system;

(d) Flight stress measurement tests;

(e) Landing gear drop tests; and

(f) For each new or unusual design feature, all additional tests required by the Administrator.

[Revision note: Combines §§ 6.202 (less (c)) and 6.203]

§ 27.127 Design limitations.

The following values and limitations must be established to show compliance with the structural requirements of this subpart:

(a) The design maximum weight.

(b) The main rotor r.p.m. ranges, power on and power off.

(c) The maximum forward speeds for each main rotor r.p.m. within the ranges determined under paragraph (b) of this section.

(d) The maximum rearward and sideward flight speeds.

(e) The center of gravity limits corresponding to the limitations determined under paragraphs (b), (c), and (d) of this section.

(f) The rotational speed ratios between each powerplant and each connected rotating component.

(g) The positive and negative limit maneuvering load factors.

[Revision note: Based on § 6.204]

FLIGHT LOADS

§ 27.137 General.

Compliance with the flight load requirements of this subpart must be shown—

(a) At all weights from the design minimum weight to the design maximum weight; and

(b) With any practical distribution of disposable load within the operating limitations in the rotorcraft flight manual.

[Revision note: Based on § 6.210]

§ 27.139 Flight load factors.

For rotorcraft, flight load factors are rotor load factors. The net load factor acting at the center of gravity must be obtained by proper consideration of all balancing loads in each flight condition specified in this part.

[Revision note: Based on § 6.211]

§ 27.141 Maneuvering conditions.

(a) *Limit maneuvering load factors.* The rotorcraft must be designed for—

(1) A positive maneuvering load factor of 3.5 and a negative maneuvering load factor of 1.0; or

(2) Any lesser positive maneuvering load factor not less than 2.0, and lesser negative maneuvering load factor not less than 0.5, whose probability of being exceeded is shown by analysis and flight test to be extremely remote.

(b) *Resultant limit maneuvering loads.* All loads resulting from the application of limit maneuvering load factors must be assumed to act at the center of each rotor hub and to act in directions and with distributions of load among the rotors and auxiliary lifting surfaces so as to represent all critical maneuvering motions, including power-on and power-off flight with the maximum design rotor tip speed ratio. The rotor tip speed ratio is the ratio of the rotorcraft flight velocity component in the plane of the rotor disc to the rotational tip speed of the rotor blades, and is expressed as follows:

$$\mu = \frac{V \cos a}{\Omega R}$$

where—

V = The airspeed along flight path (f.p.s.);

a = The angle between the projection, in the plane of symmetry, of the axis of no feathering and a line perpendicular to the flight path (radians, positive when axis is pointing aft);

Ω = The angular velocity of rotor (radians per second); and

R = The rotor radius (ft.).

[Revision note: Combines §§ 6.1(h)(6) and 6.212]

§ 27.143 Gust loads.

The rotorcraft must be designed to withstand, at all critical airspeeds including hovering, all loads resulting from a vertical gust of 30 feet per second.

[Revision note: Based on § 6.213]

CONTROL SURFACE AND SYSTEM LOADS

§ 27.153 General.

Each auxiliary rotor, fixed or movable stabilizing or control surface, and each system operating any flight control must meet the requirements of §§ 27.155 through 27.163.

[Revision note: Based on § 6.220]

§ 27.155 Auxiliary rotor assemblies.

(a) *All auxiliary rotor assemblies.* Each auxiliary rotor assembly must be tested as prescribed in § 27.439.

(b) *Assemblies with detachable blades.* Each auxiliary rotor assembly with detachable blades must be designed to withstand all centrifugal loads resulting from the maximum design rotor r.p.m.

(c) *Highly stressed metal components.* For each auxiliary rotor with highly stressed metal components, all vibration stresses must be determined in flight and shown not to exceed safe values for continuous operation.

[Revision note: Based on § 6.221]

§ 27.157 Auxiliary rotor attachment structure.

The attachment structure for each auxiliary rotor must be designed to withstand a limit load equal to the maximum loads occurring in the structure in all flight and landing conditions.

[Revision note: Based on § 6.222]

§ 27.159 Ground clearance; tail rotor guard.

(a) It must be impossible for the tail rotor to contact the landing surface during a normal landing.

(b) If a tail rotor guard is required to show compliance with paragraph (a) of this section—

(1) Suitable design loads must be established for the guard; and

(2) The guard and its supporting structure must be designed to withstand those loads.

[Revision note: Based on § 6.223]

§ 27.161 Stabilizing and control surfaces.

(a) Each stabilizing and control surface must be designed so that—

(1) Limit loads are not less than the greater of—

(i) 15 pounds per square foot; or

(ii) The load resulting where C_N equals 0.55 at the maximum design speed; and

(2) The surface can withstand all critical loads resulting from maneuvers and from combined maneuvers and gusts.

(b) Compliance with paragraph (a) of this section must be shown with load conditions that closely simulate actual pressure distribution conditions.

[Revision note: Based on § 6.224]

§ 27.163 Primary control system loads.

(a) *Limit pilot forces.* For the purpose of this section, the limit pilot forces are as follows:

(1) For foot controls, 130 pounds.

(2) For stick controls, 100 pounds fore and aft and 67 pounds laterally.

(3) For wheel controls, 100 pounds fore and aft and a lateral couple of 53 pounds applied to opposite sides of the wheel.

(b) *From the pilot's controls to the control stops.* The portion of each control system from the pilot's controls to the control stops must be designed to withstand pilot forces of not less than—

(1) The forces specified in paragraph (a) of this section; or

(2) (Where the system prevents the pilot from applying the limit pilot forces to the system), the maximum forces that the system allows the pilot to apply, but not less than 0.60 times the forces specified in paragraph (a) of this section.

(c) *From the control stops to the attachment of the control system to the rotor blades (or control areas).* The portion of each control system from the control stops to the attachment to the rotor blades (or control areas) must be designed to at least—

(1) Withstand the maximum pilot forces obtainable in normal operation; and

(2) (Where operational loads may be exceeded through jamming, ground gusts, control inertia, or friction), support, without yielding, 0.60 times the limit pilot forces specified in paragraph (a) of this section.

(d) *Dual primary flight control systems.* Each dual primary flight control system must be designed to withstand all loads that result when pilot forces of 0.75 times those obtained under paragraphs (b) and (c) of this section are applied—

(1) In opposition; and

(2) In the same direction.

[Revision note: Combines §§ 6.225 and 6.226]

LANDING LOADS

§ 27.173 General.

(a) *Loads and equilibrium.* For limit landing loads—

(1) All limit landing loads obtained in the landing conditions in this Part must be considered to be external loads that would occur in the rotorcraft structure if it were acting as a rigid body; and

(2) In each specified landing condition, all external loads must be placed in equilibrium with all linear and angular inertia loads in a rational or conservative manner.

(b) *Critical centers of gravity.* All critical centers of gravity within the range for which certification is requested must be selected so that the maximum design loads are obtained in each landing gear element.

(c) *Design maximum weight; assumed rotor lift.* For all specified landing conditions, a design maximum weight must be used that is not less than the maximum weight. A rotor lift may be assumed to act through the center of gravity throughout the landing impact. This lift may not exceed—

(1) One-half of the design maximum weight; or

(2) Any greater lift proven to be appropriate by tests or other data that are applicable to the particular rotorcraft.

(d) *Limit load factor.* For each specified landing condition, the rotorcraft must be designed for a limit load factor of not less than the limit inertia load factor substantiated in accordance with § 27.187, unless otherwise prescribed.

(e) *Tires and shock absorbers.* For each specified landing condition, the tires must be assumed to be in their static position and the shock absorbers to be in their most critical position, unless otherwise prescribed.

(f) *Landing gear arrangement.* Sections 27.175 through 27.185 apply to landing gears with two wheels aft, and one or more wheels forward, of the center of gravity.

[Revision note: Based on § 6.230]

§ 27.175 Level landing conditions.

(a) *Attitudes.* Under each of the loading conditions prescribed in paragraph (b) of this section, the rotorcraft must be assumed to be in each of the following level landing attitudes:

(1) An attitude in which all wheels contact the ground simultaneously.

(2) An attitude in which the aft wheels contact the ground with the forward wheels just clear of the ground.

(b) *Loading conditions.* The rotorcraft must be designed for the following landing loading conditions:

(1) Vertical loads applied in accordance with § 27.173.

(2) All loads resulting from a combination of the loads applied under subparagraph (1) of this paragraph with drag loads at each wheel of not less than 25 percent of the vertical load at that wheel.

(3) If there are two wheels forward, a distribution of all loads applied to those wheels under subparagraphs (1) and (2) of this paragraph in a ratio of 40:60.

(c) *Pitching moments.* All pitching moments must be assumed to be resisted by—

(1) In the case of attitude in paragraph (a) (1) of this section, the forward landing gear; and

(2) In the case of attitude in paragraph (a) (2) of this section, the angular inertia forces.

[Revision note: Based on § 6.231]

§ 27.177 Nose-up landing condition.

(a) The rotorcraft must be assumed to be in the maximum nose-up attitude allowing ground clearance by all parts of the rotorcraft.

(b) In this attitude, all ground loads must be assumed to act perpendicular to the ground.

[Revision note: Based on § 6.232]

§ 27.179 One-wheel landing condition.

The rotorcraft must be assumed to be in the level attitude and to contact the ground on one aft wheel. In this attitude—

(a) The vertical load must be the same as that obtained on that side under § 27.175(b) (1); and

(b) All unbalanced external loads must be reacted by rotorcraft inertia.

[Revision note: Based on § 6.233]

§ 27.181 Lateral drift landing condition.

(a) The rotorcraft must be assumed to be in the level landing attitude, with—

(1) Side loads combined with one-half the maximum ground reactions obtained in the level landing conditions of § 27.175 (b) (1); and

(2) All loads obtained under subparagraph (1) of this paragraph applied—

(i) At the ground contact point; or

(ii) For full-swiveling gear, at the center of the axle.

(b) The rotorcraft must be designed to withstand, at ground contact—

(1) When only the aft wheels contact the ground, side loads of 0.8 times the vertical reaction acting inward on one side, and 0.6 times the vertical reaction acting outward on the other side, all combined with the vertical loads specified in paragraph (a); and

(2) When all wheels contact the ground simultaneously—

(i) For the aft wheels, the side loads specified in subparagraph (1) of this paragraph; and

(ii) For the forward wheels, a side load of 0.8 times the vertical reaction combined with the vertical load specified in paragraph (a) of this section.

[Revision note: Based on § 6.234]

§ 27.183 Braked roll conditions.

Under braked roll conditions with the shock absorbers in their static positions—

(a) The limit vertical load must be based on a load factor of at least—

(1) 1.33, for the attitude specified in § 27.175(a) (1); and

(2) 1.0, for the attitude specified in § 27.175(a) (2); and

(b) The structure must be designed to withstand the application, at the ground contact point of each wheel with brakes, of a drag load of not less than the lesser of—

(1) The vertical load multiplied by a coefficient of friction of 0.8; and

(2) The maximum value based on limiting brake torque.

[Revision note: Based on § 6.235]

§ 27.185 Taxiing condition.

The rotorcraft must be designed to withstand all loads that would occur when the rotorcraft is taxied over the roughest ground that may reasonably be expected in normal operation.

[Revision note: Based on § 6.236]

§ 27.187 Shock absorption tests.

(a) *General.* The landing inertia load factor and the reserve energy absorption capacity of the landing gear must be substantiated by conducting the tests prescribed in paragraphs (b) and (c), respectively, of this section. These tests must be conducted on the complete rotorcraft or on units consisting of wheel, tire, and shock absorber in their proper relation.

(b) *Limit drop test.* The limit drop test must be conducted as follows:

(1) The drop height must be—

(i) 13 inches from the lowest point of the landing gear to the ground; or

(ii) Any lesser height, not less than eight inches, resulting in a drop contact velocity equal to the greatest probable sinking speed likely to occur at ground contact in normal power-off landings.

(2) If considered, the rotor lift specified in § 27.173(c) must be introduced into the drop test by the use of appropriate energy absorbing devices or by the use of an effective mass. When an effective mass is used, the method of computation specified in Appendix A of this part may be used instead of more rational computations.

(3) Each landing gear unit must be tested in the attitude simulating the landing condition that is most critical from the standpoint of the energy to be absorbed by that unit.

(c) *Reserve energy absorption drop test.* The reserve energy absorption drop test must be conducted as follows:

(1) The drop height must be 1.5 times that specified in paragraph (b) (1) of this section.

(2) Rotor lift, where considered in a manner similar to that prescribed in paragraph (b) (2) of this section, may not exceed 1.5 times the lift allowed under paragraph (b) (2) of this section.

(3) The landing gear must withstand this test without collapse.

[Revision note: Based on § 6.237 (less note following (a))]

§ 27.193 Ski landing conditions.

If certification for ski operation is requested, the rotorcraft, with skis, must be designed to withstand the following loading conditions (where P is the maximum static weight on each ski with the rotorcraft at design maximum weight, and n is the limit load factor determined in accordance with § 27.173(d)):

(a) Up-load conditions in which—

(1) A vertical load of Pn and a horizontal load of $Pn/4$ are simultaneously applied at the pedestal bearings; and

(2) A vertical load of 1.33 P is applied at the pedestal bearings.

(b) A side-load condition in which a side load of 0.35 Pn is applied at the pedestal bearings in a horizontal plane perpendicular to the centerline of the rotorcraft.

(c) A torque-load condition in which a torque load of 1.33 P (in foot pounds) is applied to the ski about the vertical axis through the centerline of the pedestal bearings.

[Revision note: Based on § 6.240]

§ 27.203 Float landing conditions.

If certification for float operation is requested, the rotorcraft, with floats, must be designed to withstand the following loading conditions (where the limit load factor is determined under § 27.173(d) or assumed to be equal to that determined for wheel landing gear):

(a) Up-load conditions in which—

(1) A load is so applied that, with the rotorcraft in the static level attitude, the resultant water reaction passes vertically through the center of gravity; and

(2) The vertical load prescribed in subparagraph (1) of this paragraph is applied simultaneously with an aft component of 0.25 times the vertical component.

(b) A side-load condition in which—

(1) A vertical load of 0.75 times the total vertical load specified in paragraph (a) (1) of this section is divided equally among the floats; and

(2) For each float, the load share determined under subparagraph (1) of this paragraph, combined with a total side load of 0.25 times the total vertical load specified in subparagraph (1) of this paragraph, is applied to that float only.

[Revision note: Based on § 6.245]

§ 27.205 Ground loading conditions; landing gear with tail wheels.

(a) *General.* Rotorcraft with landing gear with two wheels forward, and one wheel aft, of the center of gravity must be designed for all loading conditions as prescribed in this section.

(b) *Level landing attitude with only the forward wheels contacting the ground.* In this attitude—

(1) All vertical loads must be applied under § 27.173;

(2) The vertical load at each axle must be combined with a drag load at that axle of not less than 25 percent of that vertical load; and

(3) All unbalanced pitching moments must be assumed to be resisted by angular inertia forces.

(c) *Level landing attitude with all wheels contacting the ground simultaneously.* In this attitude, the rotorcraft must be designed for all landing loading conditions as prescribed in paragraph (b) of this section.

(d) *Maximum nose-up attitude with only the rear wheel contacting the ground.* The attitude for this condition must be the maximum nose-up attitude expected in normal operation, including autorotative landings. In this attitude—

(1) The appropriate ground loads specified in paragraph (b) (1) and (2) of this section must be determined and applied, using a rational method to account for the moment arm between the rear wheel ground reaction and the rotorcraft center of gravity; or

(2) The probability of landing with initial contact on the rear wheel must be shown to be extremely remote.

(e) *Level landing attitude with only one forward wheel contacting the ground.* In this attitude, the rotorcraft must be designed for ground loads as specified in paragraph (b) (1) and (3) of this section.

(f) *Sideloads in the level landing attitude.* In the attitudes specified in paragraphs (b) and (c) of this section, the following rules apply:

(1) All side loads must be combined at each wheel with one-half of the maximum vertical ground reactions obtained for that wheel under paragraphs (b) and (c) of this section. In this condition, the side loads must be—

(i) For the forward wheels, 0.8 times the vertical reaction (on one side) acting inward, and 0.6 times the vertical reaction (on the other side) acting outward; and

(ii) For the rear wheel, 0.8 times the vertical reaction.

(2) The loads specified in subparagraph (1) of this paragraph must be applied—

(i) At the ground contact point with the wheel in the trailing position (for non-full swiveling landing gear or for full swiveling landing gear with a lock, steering device, or shimmy damper to keep the wheel in the trailing position); or

(ii) At the center of the axle (for full swiveling landing gear which do not have a lock, steering device, or shimmy damper).

(g) *Braked roll conditions in the level landing attitude.* In the attitudes specified in paragraphs (b) and (c) of this section, and with the shock absorbers deflected to their static positions, the rotorcraft must be designed for braked roll loads as follows:

(1) The limit vertical load must be based on a limit vertical load factor of not less than—

(i) 1.0, for the attitude specified in paragraph (b) of this section; and

(ii) 1.33, for the attitude specified in paragraph (c) of this section.

(2) For each wheel with brakes, a drag load must be applied, at the ground contact point, of not less than the lesser of—

(i) 0.8 times the vertical load; and

(ii) The maximum based on limiting brake torque.

(h) *Rear wheel turning loads in the static ground attitude.* In the static ground attitude, and with the shock absorbers and tires deflected to their static positions, the rotorcraft must be designed for rear wheel turning loads as follows:

(1) A vertical ground reaction equal to the static load on the rear wheel must be combined with an equal sideload.

(2) The load specified in subparagraph (1) of this paragraph must be applied to the rear landing gear—

(i) Through the axle, when a swivel is provided (the rear wheel being assumed to be swiveled 90 degrees to the longitudinal axis of the rotorcraft); or

(ii) At the ground contact point, when a lock, steering device or shimmy damper is provided (the rear wheel being assumed to be in the trailing position).

(i) *Taxiing condition.* The rotorcraft and its landing gear must be designed for all loads that would occur when the rotorcraft is taxied over the roughest ground that may reasonably be expected in normal operation.

[Revision note: Based on § 6.246]

§ 27.207 Ground loading conditions; landing gear with skids.

(a) *General.* Rotorcraft with landing gear with skids must be designed for the loading conditions specified in this section. In showing compliance with paragraphs (b) through (f) of this section, the following rules apply:

(1) The design maximum weight, center of gravity, and load factor must be determined under § 27.173.

(2) Structural yielding of elastic spring members under limit loads is acceptable.

(3) Design ultimate loads for elastic spring members need not exceed those obtained in a drop test of the gear with—

(i) A drop height of 1.5 times that specified in § 27.187(b)(1); and

(ii) An assumed rotor lift of not more than 1.5 times that used in the limit drop tests prescribed in § 27.187(b).

(4) Compliance with paragraphs (b) through (e) of this section must be shown with—

(i) The gear in its most critically deflected position for the landing condition being considered; and

(ii) All ground reactions rationally distributed along the bottom of the skid tube.

(b) *Vertical reactions in the level landing attitude.* In the level attitude, and with the rotorcraft contacting the ground along the bottom of both skids, all vertical reactions must be applied as prescribed in paragraph (a) of this section.

(c) *Drag reactions in the level landing attitude.* In the level attitude, and with the rotorcraft contacting the ground along the bottom of both skids, the following rules apply:

(1) All vertical reactions must be combined with horizontal drag reactions of 50 percent of the vertical reaction applied at the ground.

(2) The resultant ground loads must be—

(i) Equal to the vertical load specified in paragraph (b) of this section; and

(ii) Directed through the center of gravity.

(d) *Sideloads in the level landing attitude.* In the level attitude, and with the rotorcraft contacting the ground along the bottom of both skids, the following rules apply:

(1) The vertical ground reaction must be—

(i) Equal to the vertical loads obtained in the condition specified in paragraph (b) of this section; and

(ii) Divided equally among the skids.

(2) All vertical ground reactions must be combined with a horizontal sideload of 25 percent of their value.

(3) The total sideload must be applied along the length of one skid only.

(4) All unbalanced moments must be assumed to be resisted by angular inertia.

(5) The skid gear must be investigated for—

(i) Inward acting sideloads; and

(ii) Outward acting sideloads.

(e) *One-skid landing loads in the level attitude.* In the level attitude, and with the rotorcraft contacting the ground along the bottom of one skid only, the following rules apply:

(1) The vertical load must be the same as that obtained on that side in the condition specified in paragraph (b) of this section.

(2) All unbalanced moments must be assumed to be resisted by angular inertia.

(f) *Special conditions.* In addition to the conditions specified in paragraphs (b) through (e) of this section, the rotorcraft must be designed for the following conditions:

(1) A ground reaction load acting up and aft at an angle of 45 degrees to the longitudinal axis of the rotorcraft. This load must be—

(i) Equal to 1.33 times the maximum weight;

(ii) Distributed symmetrically among the skids;

(iii) Concentrated at the forward end of the straight portion of the skid tube; and

(iv) Applied only to the forward end of the skid tube and its attachment to the rotorcraft.

(2) With the rotorcraft in the level landing attitude, a vertical ground reaction load equal to one-half of the vertical load determined under paragraph (b) of this section. This load must be—

(i) Applied only to the skid tube and its attachment to the rotorcraft; and

(ii) Concentrated at a point midway between the skid tube attachments.

[Revision note: Based on § 6.247]

MAIN COMPONENT REQUIREMENTS

§ 27.217 Main rotor structure.

(a) Each main rotor assembly (including rotor hubs and blades) must be designed as prescribed in this section.

(b) All hubs, blades, blade attachments, and blade controls subject to alternating stresses must be designed to withstand repeated loading conditions. In addition—

(1) The stresses of critical parts must be determined in flight in all attitudes appropriate to the type of rotorcraft throughout the ranges of limitations prescribed in § 27.127; and

(2) The service life of each critical part must be established by the applicant on the basis of—

(i) Fatigue tests; or

(ii) Any other approved method.

(c) The main rotor structure must be designed to withstand the following loads prescribed in §§ 27.137 through 27.143:

(1) Critical flight loads.

(2) Limit loads occurring under all normal conditions of autorotation. For this condition, the rotor r.p.m. must be selected to include the effects of altitude.

(d) The main rotor structure must be designed to withstand loads simulating—

(1) For the rotor blades, hubs, and flapping hinges, the impact force of each blade against its stop during ground operation; and

(2) All other critical conditions expected in normal operation.

(e) The main rotor structure must be designed to withstand the design limit torque at all rotational speeds, including zero. In addition:

(1) The design limit torque need not be greater than the torque defined by a torque limiting device (where provided), and must not be less than the greater of—

(i) The maximum torque likely to be transmitted to the rotor structure in either direction; and

(ii) The design limit engine torque specified in § 27.219(e).

(2) The design limit torque must be distributed to the rotor blades in a rational manner.

[Revision note: Based on § 6.250]

§ 27.219 Fuselage, landing gear, and rotor pylon structures.

(a) Each fuselage, landing gear, and rotor pylon structure must be designed as prescribed in this section. Resultant rotor forces may be represented as a single force applied at the rotor hub attachment point.

(b) Each structure must be designed to withstand—

(1) All critical loads prescribed in §§ 27.137 through 27.143;

(2) All applicable ground loads prescribed in §§ 27.173 through 27.203; and

(3) All loads prescribed in § 27.217(d) (2) and (e).

(c) Auxiliary rotor thrust, and all balancing air and inertia loads occurring under accelerated flight conditions, must be considered.

(d) Each engine mount and adjacent fuselage structure must be designed to withstand all loads occurring under accelerated flight and landing conditions, including engine torque.

(e) The design limit engine torque must not be less than the mean torque multiplied by a factor of—

(1) 1.25, for turbine engines;

(2) 1.33, for engines with five or more cylinders; and

(3) Two, three, and four, for engines with four, three, and two cylinders, respectively.

(f) For critical parts, that is, parts whose sudden failure would threaten the structural integrity of the rotorcraft, the following rules apply:

(1) Each part must be designed to withstand all repeated loading conditions likely to occur within its established service life.

(2) Stresses on parts must be determined in flight—

(i) For all attitudes appropriate to the type of rotorcraft; and

(ii) For each attitude, throughout the ranges of limitations prescribed in § 27.127.

(3) The service life of each part must be established by each applicant on the basis of—

(i) Fatigue tests; or

(ii) Any other approved method.

[Revision note: Based on § 6.251]

EMERGENCY LANDING CONDITIONS

§ 27.229 General.

(a) The rotorcraft, although it may be damaged in emergency landing conditions on land or water, must be designed as prescribed in this section to protect all occupants under those conditions.

(b) The structure must be designed to give all occupants every reasonable chance of escaping serious injury in a minor crash landing when—

(1) Proper use is made of seats, belts, and all other safety design provisions;

(2) The wheels are retracted (where applicable); and

(3) All occupants experience the following ultimate inertia forces relative to the surrounding structure:

(i) Upward—1.5 *g*.

(ii) Forward—4.0 *g*.

(iii) Sideward—2.0 *g*.

(iv) Downward—4.0 *g*, or any lesser force that will not be exceeded when the rotorcraft absorbs the landing loads resulting from impact with an ultimate descent velocity of five f.p.s. at design maximum weight.

(c) The supporting structure must be designed to restrain, under all loads up to those specified in paragraph (b)(3) of this section, all items of mass that could injure an occupant if they came loose in a minor crash landing.

[Revision note: Based on § 6.260]

Subpart D—Design and Construction

GENERAL

§ 27.251 Design.

(a) The rotorcraft may have no design features or details known to be hazardous or unreliable.

(b) The suitability of all questionable design details and parts must be established by tests.

[Revision note: Based on § 6.300]

§ 27.253 Materials.

The suitability and durability of all materials used in the structure must—

(a) Be established on the basis of experience or tests; and

(b) Conform to approved specifications that ensure their having the strength and other properties assumed in the design data.

[Revision note: Based on § 6.301]

§ 27.255 Fabrication methods.

(a) All methods of fabrication must produce a consistently sound structure.

(b) When compliance with paragraph (a) of this section requires close control of any fabrication process (such as gluing, spot welding, or heat treating), that process must be performed under approved process specifications.

[Revision note: Based on § 6.302]

§ 27.257 Standard fastenings.

(a) Each bolt, pin, screw, and rivet used in the structure must be approved.

(b) Each bolt, pin, and screw used in the structure must use an approved locking device or method.

(c) No self-locking nut may be used on any bolt subject to rotation.

[Revision note: Based on § 6.303]

§ 27.259 Protection of structure.

Each part of the rotorcraft structure must—

(a) Be suitably protected against deterioration or loss of strength in service due to any cause, including—

(1) Weathering;

(2) Corrosion; and

(3) Abrasion; and

(b) Have provisions for ventilation and drainage where necessary to prevent the accumulation of corrosive, flammable, or noxious fluids.

[Revision note: Based on § 6.304]

§ 27.261 Inspection provisions.

Means must be provided to allow the close examination of all parts of the rotorcraft that require—

(a) Periodic inspection;

(b) Adjustment for proper alignment and functioning; or

(c) Lubrication (for moving parts).

[Revision note: Based on § 6.305]

§ 27.263 Material strength properties and design values.

(a) All material strength properties must be based on a sufficient number of tests of material conforming to approved specifications to establish design values on a statistical basis.

(b) All design values must be so chosen that the probability of any structure being understrength because of material variations is extremely remote.

(c) The strength, detail design, and fabrication of the structure must minimize the probability of disastrous fatigue failure, particularly at points of stress concentration.

(d) Unless they are shown to be inapplicable in a particular case, all design values must be those contained in the following publications (which are published by the Department of Defense and the Federal Aviation Agency and may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402)—

MIL-HDBK-5, "Metallic Materials and Elements for Flight Vehicle Structure";
MIL-HDBK-17, "Plastics for Flight Vehicles";
ANC-18, "Design of Wood Aircraft Structures"; and
MIL-HDBK-23, "Composite Construction for Flight Vehicles".

[Revision note: Based on § 6.306]

§ 27.265 Special factors, tests, and inspection methods.

(a) The special factors prescribed in §§ 27.267 through 27.271 apply to each part of the rotorcraft structure whose strength is—

(1) Uncertain;

(2) Likely to deteriorate in service prior to normal replacement; or

(3) Subject to appreciable variability due to—

(i) Uncertainties in manufacturing processes; or

(ii) Uncertainties in inspection methods.

(b) For each part of the rotorcraft to which §§ 27.267 through 27.271 apply, the factor of safety prescribed in § 27.121(a) must be multiplied by a special factor equal to—

(1) The applicable special factors prescribed in §§ 27.267 through 27.271; or

(2) Any other factor great enough to ensure that the probability of the part being understrength because of the uncertainties specified in paragraph (a) of this section is extremely remote.

[Revision note: Based on § 6.307(a)]

§ 27.267 Casting factors.

(a) *General.* The factors, tests, and inspections specified in paragraphs (b) and (c) of this section must be applied in addition to those necessary to establish foundry quality control. The inspections must meet approved specifications. Paragraphs (c) and (d) of this section apply to all structural castings except castings that are pressure tested as parts of hydraulic or other fluid systems and do not support structural loads.

(b) *Bearing stresses and surfaces.* The casting factors specified in paragraphs (c) and (d) of this section—

(1) Need not exceed 1.25 with respect to bearing stresses regardless of the method of inspection used; and

(2) Need not be used with respect to the bearing surfaces of a part whose bearing factor is larger than the applicable casting factor.

(c) *Critical castings.* For each casting whose failure would preclude continued safe flight and landing of the rotorcraft or result in serious injury to occupants, the following rules apply:

(1) Each critical casting must—

(i) Have a casting factor of not less than 1.25; and

(ii) Receive 100 percent inspection by visual, radiographic, and magnetic particle (for ferromagnetic materials) or penetrate (for nonferromagnetic materials) inspection methods or approved equivalent inspection methods.

(2) For each critical casting with a casting factor less than 1.50, three sample castings must be static tested and shown to conform with—

(i) The strength requirements of § 27.123 at an ultimate load corresponding with a costing factor of 1.25; and

(ii) The deformation requirements of § 27.123 at a load of 1.15 times the limit load.

(d) *Noncritical castings.* For each casting other than those specified in paragraph (c) of this section, the following rules apply:

(1) Except as provided in subparagraphs (2) and (3) of this paragraph, the casting factors and corresponding inspections must conform to the following table:

Casting factor	*Inspection*
2.0 or greater...	100 percent visual.
Less than 2.0, greater than 1.5.	100 percent visual, and magnetic particle (ferromagnetic materials), Penetrant (nonferromagnetic materials), or approved equivalent inspection methods.
1.25 to 1.50 inclusive.	100 percent visual, and magnetic particle (ferromagnetic materials), Penetrant (nonferromagnetic materials), and radiographic or approved equivalent inspection methods.

(2) The percentage of castings inspected by nonvisual methods may be reduced below that specified in subparagraph (1) of this paragraph when an approved quality control procedure is established.

(3) For castings procured to a specification that guarantees the mechanical properties of the material in the casting and provides for demonstration of these properties by test of coupons cut from the castings on a sampling basis—

(i) A casting factor of 1.0 may be used; and

(ii) The castings must be inspected as provided in subparagraph (1) of this paragraph for casting factors of "1.25 to 1.50 inclusive" and tested in accordance with paragraph (c)(2) of this section.

[Revision note: Based on § 6.307(b)]

§ 27.269 Bearing factors.

(a) Except as provided in paragraph (b) of this section, each part that has clearance (free fit), and that is subject to pounding or vibration, must have a bearing factor large enough to provide for the effects of normal relative motion.

(b) No bearing factor need be used on a part for which any larger special factor is prescribed.

[Revision note: Based on § 6.307(c)]

§ 27.271 Fitting factors.

For each fitting, that is, part or terminal used to join one structural member to another, the following rules apply:

(a) For each fitting whose strength is not proven by limit and ultimate load tests in which actual stress conditions are simulated in the fitting and surrounding structures, a fitting factor of at least 1.15 must be applied to all portions of—

(1) The fitting;

(2) The means of attachment; and

(3) The bearing on the joined members.

(b) No fitting factor need be used—

(1) For joints made in accordance with approved practices and based on comprehensive test data (such as continuous joints in metal plating, welded joints, and scarf joints in wood); and

(2) With respect to any bearing surface for which a larger special factor is used.

(c) For each integral fitting, the part must be treated as a fitting up to the point at which the section properties become typical of the member.

[Revision note: Based on § 6.307 (less (a)-(c))]

§ 27.273 Flutter.

Each part of the rotorcraft must be free from flutter under all appropriate conditions of speed and power.

[Revision note: Based on § 6.140 (less vibration aspect)]

Main Rotor

§ 27.281 Pressure venting and drainage of main rotor blades.

For each main rotor blade—

(a) Means must be provided for venting the internal pressure of the blade;

(b) Drainage holes must be provided for the blade; and

(c) The blade must be designed to prevent water from becoming trapped in any section of the blade.

[Revision note: Based on § 6.310]

§ 27.283 Stops.

For each main rotor blade—

(a) The blade must have stops, appropriate to the design, to limit its travel about its hinges; and

(b) Provision must be made to keep the blade from hitting the droop stops during all operations other than the starting and stopping of the rotor.

[Revision note: Based on § 6.311]

§ 27.285 Rotor and blade balance.

The rotors and blades must be mass balanced as necessary to—

(a) Prevent excessive vibration; and

(b) Prevent flutter at all speeds up to the maximum forward speed.

[Revision note: Based on § 6.312]

§ 27.287 Rotor blade clearance.

Sufficient clearance must be provided, between the main rotor blades and all other parts of the structure, to prevent the blades from striking any part of the structure during any operating condition.

[Revision note: Based on § 6.313]

Control Systems

§ 27.297 General.

(a) Each control and control system must operate with the ease, smoothness, and positiveness appropriate to its function.

(b) Each element of each flight control system must be designed, or distinctively and permanently marked, to minimize the probability of incorrect assembly that could result in the malfunctioning of the system.

[Revision note: Based on § 6.320]

§ 27.299 Control system stops.

(a) Each control system must have stops that positively limit the range of motion of the pilot's controls.

(b) Each stop must be so located in the system that the range of travel of its control is not appreciably affected by—

(1) Wear;

(2) Slackness; or

(3) Takeup adjustments.

(c) Each stop must be able to withstand all loads corresponding to the design conditions for the system.

[Revision note: Based on § 6.321]

§ 27.301 Control system locks.

If a device is provided for locking the control system with the rotorcraft on the ground or water, means must be provided to—

(a) Give unmistakable warning to the pilot when the lock is engaged; and

(b) Prevent the lock from becoming engaged in flight.

[Revision note: Based on § 6.322]

§ 27.303 Limit load static tests.

Compliance with the limit load requirements of this Part must be shown in tests in which—

(a) The direction of the test loads produces the most severe loading in the control system;

(b) All fittings, pulleys, and brackets used in attaching the system to the main structure are included; and

(c) Compliance is shown (by analyses or individual load tests) with the special factor requirements for control system joints subject to angular motion.

[Revision note: Based on § 6.323]

§ 27.305 Operation tests.

(a) When the controls are operated from the pilot compartment with the system loaded to correspond with loads specified for the system, the system must be free from—

(1) Jamming;

(2) Excessive friction; and

(3) Excessive deflection.

(b) Compliance with paragraph (a) of this section must be shown in actual tests.

[Revision note: Based on § 6.324]

§ 27.307 Control system details.

(a) All details of each control system must be designed to prevent jamming,

chafing, and interference from cargo, passengers, or loose objects.

(b) Means must be provided in the cockpit to prevent the entry of foreign objects into places where they would jam the system.

(c) Provision must be made to prevent the slapping of cables or tubes against other parts.

[Revision note: Based on § 6.325]

§ 27.309 Spring devices.

(a) Each control system spring device whose failure could cause flutter or other unsafe characteristics must be reliable.

(b) Compliance with paragraph (a) of this section must be shown in tests simulating service conditions.

[Revision note: Based on § 6.326]

§ 27.311 Autorotation control mechanism.

Each main rotor blade pitch control mechanism must allow rapid entry into autorotation after power failure.

[Revision note: Based on § 6.327]

§ 27.313 Power boost and power-operated control system.

(a) When a power boost or power-operated control system is used, an alternate system must be immediately available that allows the rotorcraft to be flown and landed safely in the event of—

(1) Any single failure in the power portion of the system; or

(2) The failure of all engines.

(b) Each alternate system may be a duplicate power portion or a manually operated mechanical system. The power portion must include the power source (such as hydraulic pumps), and such items as valves, lines, and actuators.

(c) The failure of mechanical parts (such as piston rods and links), and the jamming of power cylinders, must be considered unless they are shown to be extremely improbable.

[Revision note: Based on § 6.328]

LANDING GEAR

§ 27.323 Wheels.

(a) Each landing gear wheel must be approved.

(b) The maximum static load rating of each wheel may not be less than the corresponding static ground reaction with—

(1) Maximum weight; and

(2) Critical center of gravity.

(c) The maximum limit load rating of each wheel must equal or exceed the maximum radial limit load determined under the applicable ground load requirements of this part.

[Revision note: Based on § 6.335]

§ 27.325 Brakes.

A braking device must be installed that is—

(a) Controllable by the pilot;

(b) Usable during power-off landings; and

(c) Adequate to—

(1) Counteract any normal unbalanced torque when starting or stopping the rotor; and

(2) Hold the rotorcraft parked on a 10 degree slope on a dry, smooth pavement.

[Revision note: Based on § 6.336]

§ 27.327 Tires.

(a) Each landing gear wheel must have a tire—

(1) That is a proper fit on the rim of the wheel; and

(2) Whose approved tire rating is not exceeded.

(b) The maximum static load rating of each tire must equal or exceed the static ground reaction obtained at its wheel, assuming—

(1) The design maximum weight; and

(2) The most unfavorable center of gravity.

[Revision note: Based on § 6.337]

§ 27.329 Skis.

The maximum limit load rating of each ski must equal or exceed the maximum limit load determined in accordance with the applicable ground load requirements of this part.

[Revision note: Based on § 6.338]

HULLS AND FLOATS

§ 27.339 Buoyancy.

(a) *Main floats.* For main floats—

(1) The buoyancy necessary to support the maximum weight of the rotorcraft in fresh water must be exceeded by—

(i) 50 percent, for single floats; and

(ii) 60 percent, for multiple floats; and

(2) Each main float must have at least four watertight compartments approximately equal in volume.

(b) *Hulls and auxiliary floats.* For each rotorcraft, with a hull and auxiliary floats, that is to be approved for both taking off from and landing on water, the hull and auxiliary floats must have watertight compartments such that, with any single compartment flooded, the buoyancy of the hull and auxiliary floats (and wheel tires is used) provides a margin of positive stability sufficient to minimize the probability of capsizing.

[Revision note: Based on § 6.341]

§ 27.341 Float strength.

(a) *Bag floats.* Each bag float must be able to withstand—

(1) The maximum pressure differential that might be developed at the maximum altitude for which certification with that float is requested; and

(2) The vertical loads prescribed in § 27.203(a), distributed along the length of the bag over three-quarters of its projected area.

(b) *Rigid floats.* Each rigid float must be able to withstand the vertical, horizontal, and side loads prescribed in § 27.203. These loads may be distributed along the length of the float.

[Revision note: Based on § 6.342]

PERSONNEL AND CARGO ACCOMMODATIONS

§ 27.351 Pilot compartments; general.

For each pilot compartment—

(a) The arrangement of the compartment and its appurtenances must allow each pilot to perform all of his duties without unreasonable concentration and fatigue;

(b) When provision is made for a second pilot, the rotorcraft must be controllable with equal safety from both seats; and

(c) The vibration and noise characteristics of cockpit appurtenances may not interfere with safe operation.

[Revision note: Based on § 6.350]

§ 27.353 Pilot compartment visibility.

(a) Each pilot compartment must be free from glare and reflections that could interfere with the pilot's view, and designed and arranged so that—

(1) Each pilot's view is sufficiently extensive, clear, undistorted for safe operation; and

(2) Each pilot is protected from the elements so that moderate rain conditions do not unduly impair his view of the flight path in normal flight and while landing.

(b) If certification for night operation is requested, compliance with paragraph (a) of this section must be shown in night flight tests.

[Revision note: Based on § 6.351]

§ 27.355 Pilot windshield and windows

Nonsplintering safety glass must be used in all pilot windshields and windows.

[Revision note: Based on § 6.352]

§ 27.357 Cockpit controls.

Cockpit controls must be—

(a) Located to provide convenient operation and to prevent confusion and inadvertent operation; and

(b) So located and arranged with respect to the pilots' seats that there is full and unrestricted movement of each control without interference from the cockpit structure or the pilot's clothing when pilots from 5'2'' to 6'0'' in height are seated.

[Revision note: Based on § 6.353]

§ 27.359 Doors.

(a) Each closed cabin must have at least one adequate and easily accessible external door.

(b) No passenger door may be located with respect to any rotor disc so as to endanger persons using that door.

[Revision note: Based on § 6.354]

§ 27.361 Seats and berths.

(a) For seats and berths, the following rules apply:

(1) Each seat and berth, including its supporting structure, must be designed for all loads resulting from all specified flight and landing conditions, including the emergency landing conditions of § 27.229.

(2) All reactions from safety belts and harnesses must be considered.

(3) Each pilot seat must be designed for all reactions resulting from the application of the pilot forces prescribed in § 27.163.

(b) The structural analysis and testing of the structures specified in paragraph (a) may be simplified by—

(1) assuming that the critical load in each direction, as determined from the prescribed flight, ground, and emergency landing conditions, acts separately; or

(2) Using selected combinations of loads, if the required strength in all specified directions is substantiated.

[Revision note: Combines §§ 6.355 and 6.355–1 (less 1st sentence)]

§ 27.363 Cargo and baggage compartments.

(a) Each cargo and baggage compartment must be designed for its placarded maximum weight of contents and for all critical load distributions at the appropriate maximum load factors corresponding with all specified flight and ground load conditions, except the emergency landing conditions of § 27.229.

(b) Provision must be made to prevent the contents in any compartment from becoming a hazard by shifting under the loads specified in paragraph (a) of this section.

(c) Provision must be made to protect the passengers and crew from injury by the contents of any compartment when the ultimate forward inertia force is 4*g*.

[Revision note: Based on § 6.356]

§ 27.365 Emergency exits.

(a) Rotorcraft with closed cabins having a total seating capacity of more than five persons must have at least one emergency exit on the opposite side of the cabin from the main door. Additional exits must be provided as prescribed by the Administrator where the total seating capacity is more than 15.

(b) Each emergency exit prescribed in paragraph (a) of this section must—

(1) Consist of a movable window or panel, or additional external door, providing an unobstructed opening of at least the dimensions of a 19 by 26-inch ellipse;

(2) Be readily accessible, require no exceptional agility of a person using it, and be so located as to allow ready use, without crowding, in all probable attitudes that may result from a crash;

(3) Have a simple and obvious method of opening and be arranged and marked so as to be readily located and operated, even in darkness;

(4) Be reasonably protected from jamming from fuselage deformation; and

(5) Properly function under test.

[Revision note: Based on § 6.357]

§ 27.367 Ventilation.

(a) The ventilating system for the pilot and passenger compartments must be designed to prevent the presence of excessive quantities of fuel fumes and carbon monoxide.

(b) The concentration of carbon monoxide may not exceed one part in 20,000 parts of air during forward flight or hovering in still air. If the concentration exceeds this value under other conditions, suitable operating restrictions must be provided.

[Revision note: Based on § 6.358]

FIRE PREVENTION

§ 27.379 Cabin interiors.

For each compartment used by the crew or passengers—

(a) All materials must be at least flash-resistant;

(b) All wall and ceiling linings, and the covering of all upholstery, floors, and furnishings must be at least flame resistant; and

(c) Each compartment where smoking is to be allowed must have self-contained, removable, ash trays, and all other compartments must be placarded against smoking.

[Revision note: Based on § 6.381]

§ 27.381 Cargo and baggage compartments.

(a) Each cargo and baggage compartment must be constructed of, or lined with, materials that are at least—

(1) Flame resistant, in the case of compartments that are readily accessible to a crewmember in flight; and

(2) Fire resistant, in the case of other compartments.

(b) No compartment may contain any controls, wiring, lines, equipment, or accessories whose damage or failure would affect safe operation, unless those items are protected so that—

(1) They cannot be damaged by the movement of cargo in the compartment; and

(2) Their breakage or failure will not create a fire hazard.

[Revision note: Based on § 6.382]

§ 27.383 Heating systems.

(a) *General.* For each heating system that involves the passage of cabin air over, or close to, the exhaust manifold, means must be provided to prevent the introduction of carbon monoxide into any cabin or pilot compartment.

(b) *Heat exchangers.* Each heat exchanger must be—

(1) Of suitable materials;

(2) Adequately cooled under all conditions; and

(3) Easily disassembled for inspection.

(c) *Combustion heaters.* Each gasoline-operated combustion heater must be approved and installed to conform to the applicable powerplant installation requirements covering fire hazards and precautions. In addition—

(1) All applicable requirements concerning fuel tanks, lines, and exhaust systems must be complied with; and

(2) Means independent of the components provided for the normal continuous control of air temperature, airflow, and fuel flow must be provided for each heater to automatically shut off and hold off the ignition and fuel supply to that heater at a point remote from that heater, when—

(i) The heat exchanger temperature or ventilating air temperature exceeds safe limits; or

(ii) Either the combustion airflow or the ventilating airflow becomes inadequate for safe operation.

[Revision note: Based on § 6.383]

§ 27.385 Fire protection of structure, controls and other parts.

All parts of the structure, controls, and the rotor mechanism, and other parts essential to a controlled landing that would be affected by powerplant fires must be protected so that they can perform their essential functions for at least five minutes under all foreseeable powerplant fire conditions.

[Revision note: Based on § 6.384]

MISCELLANEOUS

§ 27.395 Leveling marks.

Reference marks must be provided for use in leveling the rotorcraft on the ground.

[Revision note: Based on § 6.391]

§ 27.397 Ballast provisions.

All ballast provisions must be so designed and constructed as to prevent the inadvertent shifting of ballast in flight.

[Revision note: Based on § 6.391]

Subpart E—Powerplant Installation

GENERAL

§ 27.421 General.

(a) For the purpose of this Part, the rotorcraft powerplant installation includes all parts of the rotorcraft (other than the main and auxiliary rotor structures) that—

(1) Are necessary for propulsion;

(2) Affect the control of the major propulsive units; or

(3) Affect the safety of the major propulsive units between normal inspections or overhauls.

(b) For each powerplant installation—

(1) All components of the installation must be constructed, arranged, and installed so as to ensure their continued safe operation between normal inspections or overhauls;

(2) Accessibility must be provided to allow any inspection and maintenance that is necessary to ensure continued airworthiness; and

(3) Electrical interconnections must be provided to prevent differences of potential between major components of the installation and the rest of the rotorcraft.

[Revision note: Combines §§ 6.400 and 6.400–1]

§ 27.423 Engines.

(a) *Engine type certification.* Each engine must be type certificated under Part 33 [New].

(b) *Engine cooling fan blade protection.* If an engine cooling fan is installed, means must be provided to protect the rotorcraft and to permit a safe landing if a fan blade fails. In addition—

(1) All fan blades must be contained in the event of failure;

(2) Each fan must be so located that a failure will not jeopardize the safety of the rotorcraft or its occupants; or

(3) Each fan blade must be able to withstand an ultimate load of 1.5 times

the centrifugal force resulting from engine r.p.m. limited by either—

(i) The terminal engine r.p.m. under uncontrolled conditions; or

(ii) An overspeed limiting device.

[Revision note: Based on § 6.401 (less (c))]

§ 27.425 Engine vibration.

(a) Each engine must be installed to prevent the harmful vibration of any engine or rotorcraft part.

(b) The addition of the rotor and the rotor drive system to the engine may not subject the principal rotating portions of the engine to excessive vibration. This must be shown by means of a vibration investigation.

(c) No portion of the rotor drive system may be subjected to excessive vibration.

[Revision note: Based on § 6.402]

ROTOR DRIVE SYSTEM

§ 27.435 Rotor drive system.

(a) Each rotor drive system must incorporate a unit for each engine that will automatically disengage that engine from the main and auxiliary rotors if that engine fails.

(b) Each rotor drive system must be so arranged that all rotors necessary for control in autorotation will continue to be driven by the main rotors after disengagement of the engine from the main and auxiliary rotors.

(c) If a torque limiting device is used in the rotor drive system, it must be located to allow continued control of the rotorcraft when it is operating.

[Revision note: Based on § 6.410]

§ 27.437 Rotor brake.

If a means is provided to control the rotation of the rotor drive system independent of the engine, all limitations on the use of that means must be specified, and the control for that means must be guarded to prevent inadvertent operation.

[Revision note: Based on § 6.411]

§ 27.439 Rotor drive system and control mechanism tests.

(a) All parts tested as prescribed in this section must be in a serviceable condition at the end of the tests.

(b) Each rotor drive system and control mechanism must be tested for not less than 100 hours. The test must be conducted on the rotorcraft, and the power must be absorbed by the rotors to be installed, except that other ground or flight test facilities with other appropriate methods of power absorption may be used if all conditions of support and vibration closely simulate all conditions that would exist during a test on the rotorcraft.

(c) A 60-hour part of the test prescribed in paragraph (b) of this section must be run at not less than the maximum continuous engine power and r.p.m. In this test, the main rotor must be set in the position that will give maximum longitudinal cyclic pitch change to simulate forward flight. The auxiliary rotor controls must be in the position for normal operation under the conditions of the test.

(d) A 30-hour part of the test prescribed in paragraph (b) of this section must be run at not less than 90 percent of maximum continuous engine r.p.m. and 75 percent of maximum continuous engine power. The main and auxiliary rotor controls must be in the position for normal operation under the conditions of the test.

(e) A 10-hour part of the test prescribed in paragraph (b) of this section must be run at not less than takeoff engine power and r.p.m. The main and auxiliary rotor controls must be in the normal position for vertical ascent.

(f) The parts of the test prescribed in paragraphs (c) and (d) of this section must be conducted in intervals of not less than 30 minutes and may be accomplished either on the ground or in flight. The part of the test prescribed in paragraph (e) of this section must be conducted in intervals of not less than five minutes.

(g) At intervals of not more than five hours during the tests prescribed in paragraphs (c), (d), and (e) of this section, the engine must be stopped rapidly enough to allow the engine and rotor drive to be automatically disengaged from the rotors.

(h) Under the operating conditions specified in paragraph (c) of this section, 500 complete cycles of lateral control, 500 complete cycles of longitudinal control of the main rotors, and 500 complete cycles of control of all auxiliary rotors must be accomplished. A "complete cycle" involves movement of the controls from the neutral position, through both extreme positions, and back to the neutral position, except that control movements need not produce loads or flapping motions exceeding the maximum loads or motions encountered in flight. The cycling may be accomplished during the testing prescribed in paragraph (c) of this section.

[Revision note: Based on § 6.412]

§ 27.441 Additional tests.

All additional dynamic, endurance, and operational tests, and all vibratory investigations necessary to determine that the rotor drive mechanism is safe, must be performed.

[Revision note: Based on § 6.413]

§ 27.443 Shafting critical speed.

(a) The critical speeds of all shafting must be determined by demonstration, except that analytical methods may be used if reliable methods of analysis are available for the particular design.

(b) If any critical speed lies within, or close to, the operating ranges for idling, power on, and autorotative conditions, the stresses occurring at that speed must be within safe limits. This must be shown by tests.

(c) If analytical methods are used and indicate that no critical speed lies within the permissible operating ranges, the margins between the calculated critical speeds and the limits of the allowable operating ranges must be adequate to allow for possible variations between the computed and actual values.

[Revision note: Based on § 6.414]

§ 27.445 Shafting joints.

All universal joints, slip joints, and other shafting joints whose lubrication is necessary for operation must have provision for lubrication.

[Revision note: Based on § 6.415]

FUEL SYSTEM

§ 27.453 General.

(a) Each fuel system must be constructed and arranged to ensure a flow of fuel at a rate and pressure established for proper engine functioning under all likely operating conditions, including all maneuvers for which certification is requested.

(b) Each fuel system must be arranged so that—

(1) No fuel pump can draw fuel from more than one tank at a time; or

(2) Means are provided to prevent introducing air into the system.

[Revision note: Based on § 6.418]

§ 27.455 Fuel system independence.

(a) Each fuel system for multiengine rotorcraft must allow fuel to be supplied to each engine through a system independent of all portions of each system supplying fuel to other engines. However, separate fuel tanks need not be provided for each engine.

(b) The following must be provided if a single fuel tank is used on a multiengine rotorcraft:

(1) Independent tank outlets for each engine, each incorporating a shutoff valve at the tank. This shutoff valve may also serve as the firewall shutoff valve required by § 27.469 if the line between the valve and the engine compartment does not contain a hazardous amount of fuel that can drain into the engine compartment.

(2) At least two vents arranged to minimize the probability of both vents becoming obstructed simultaneously.

(3) Filler caps designed to minimize the probability of incorrect installation or inflight loss.

(c) The fuel system from each tank outlet to each engine must be independent of all portions of each system supplying fuel to other engines.

[Revision note: Based on § 6.419]

§ 27.457 Fuel flow.

(a) Each fuel system must provide not less than 100 percent of the fuel flow required under all intended operating conditions and maneuvers. Compliance must be shown as follows:

(1) Fuel must be delivered to each engine at a pressure within the limits specified in the engine type certificate.

(2) The quantity of fuel in the tank being considered may not exceed the amount established as the unusable fuel supply for that tank under the provisions of § 27.459 and that necessary for showing compliance with this section.

(3) All main pumps must be used that are necessary for each operating condition and attitude for which compliance with this section is shown, and the appropriate emergency pump must be substituted for each main pump so used.

(b) If an engine can feed from more than one fuel tank, the fuel system must

feed promptly when the fuel supply becomes low in one tank and another tank is selected.

[Revision note: Based on § 6.420]

§ 27.459 Unusable fuel supply.

The unusable fuel supply for each tank must be selected by the applicant and established as not less than that quantity at which the first evidence of malfunctioning occurs under the most adverse fuel feed condition occurring under all intended operations and flight maneuvers involving that tank.

[Revision note: Based on § 6.421]

§ 27.461 Fuel tank construction and installation.

(a) Each fuel tank must be able to withstand, without failure, all vibration, inertia, fluid, and structural loads to which it may be subjected in operation.

(b) Each fuel tank must be able to withstand, without leakage, an internal pressure equal to the pressure developed during the maximum limit acceleration with that tank full, but not less than—

(1) 3.5 p.s.i., for conventional tanks; or

(2) 2.0 p.s.i., for bladder tanks.

(c) Each fuel tank of 10 gallons or greater capacity must have internal baffles, or must have external support to resist surging.

(d) Each fuel tank must be separated from the engine compartment by a firewall. At least one-half inch of clear airspace must be provided between the tank and the firewall.

(e) Spaces adjacent to the surfaces of fuel tanks must be ventilated so that fumes cannot accumulate in the tank compartment in case of leakage. If two or more tanks have interconnected outlets, they must be considered as one tank, and the airspaces in those tanks must be interconnected to prevent the flow of fuel from one tank to another as a result of a difference in pressure between those airspaces.

[Revision note: Based on § 6.422]

§ 27.463 Fuel tank details.

(a) *Expansion space.* Each fuel tank must have an expansion space of not less than two percent of the tank capacity. It must be impossible to fill the fuel tank expansion space inadvertently with the rotorcraft in the normal ground attitude.

(b) *Sump.* Each fuel tank must have a sump and drain at the point in the tank that is lowest with the rotorcraft in the normal ground attitude. The main fuel supply may not be drawn from the bottom of the sump.

(c) *Filler connection.* Each fuel tank filler connection must prevent the entrance of fuel into any part of the rotorcraft other than the tank itself.

(d) *Vent.* Each fuel tank must be vented from the top of the expansion space so that venting is effective under all normal flight conditions. Each vent must minimize the probability of stoppage by dirt or ice.

(e) *Outlet.* Each fuel tank outlet must have a large-mesh finger strainer.

[Revision note: Based on § 6.423]

§ 27.465 Fuel pumps.

(a) *Main pumps.* Each fuel pump required for proper engine operation, or required to meet the fuel system requirements of this subpart (other than those in paragraph (b), of this section), is a main pump. For each main pump, provision must be made to allow the bypass of all positive displacement fuel pumps other than fuel injection pumps approved as part of the engine, that is, other than pumps that supply the proper flow and pressure for fuel injection when the injection is not accomplished in a carburetor.

(b) *Emergency pumps.* Emergency pumps must be provided to feed all engines immediately after the failure of any one main pump (other than fuel injection pump approved as part of the engine). Each emergency pump must be actuated automatically or operated continuously so that sufficient fuel pressure will be maintained to prevent engine stoppage.

[Revision note: Based on § 6.424 (less 2d and 3d sentences of note following (a))]

§ 27.467 Fuel system lines and fittings.

(a) Each fuel line must be installed and supported to prevent excessive vibration and to withstand all loads due to fuel pressure and accelerated flight conditions.

(b) Each fuel line connected to components of the rotorcraft between which relative motion could exist must incorporate provisions for flexibility.

(c) All flexible hose must be approved.

(d) Each fuel line and fitting must be of sufficient inside diameter so that the fuel flow, at the minimum pressure for proper carburetor operation, is not less than—

(1) For gravity feed systems, 1.5 times the normal flow required at takeoff power; and

(2) For pump systems, 1.25 times the normal flow required at takeoff power.

(e) All suction lift fuel systems and other fuel systems conducive to vapor formation must be free from vapor lock when using fuel at a temperature of 110 degrees F. under critical operating conditions.

(f) Compliance with all applicable flow requirements must be shown by test.

[Revision note: Based on § 6.425]

§ 27.469 Valves.

(a) A positive, quick-acting valve must be provided to shut off all fuel to each engine individually.

(b) The control for this valve must be within easy reach of all appropriate crewmembers.

(c) Where more than one source of fuel supply is provided, provision must be made for independent feeding from each source.

(d) No shutoff valve may be located on the engine side of any firewall.

[Revision note: Based on § 6.426]

§ 27.471 Fuel strainer or filter.

(a) A fuel strainer or filter must be installed between the fuel tank outlet and the fuel metering device of the engine (or engine-driven fuel pump, if one is provided). In addition—

(1) Each strainer or filter must have a sediment trap and drain;

(2) Each strainer or filter must be installed in an accessible position; and

(3) Each screen or filter element must be easily removable for cleaning.

(b) For turbine engines—

(1) Provision must be made to automatically maintain the fuel flow when the strainer or filter is clogged by ice; or

(2) Means must be incorporated in the fuel system to prevent the accumulation of ice on the strainer or filter.

[Revision note: Based on § 6.427]

§ 27.473 Drains.

(a) Accessible drains must be provided at the lowest point in each fuel system to completely drain all parts of the system with the rotorcraft in its normal position on level ground.

(b) Each drain required by paragraph (a) of this section must—

(1) Discharge clear of all parts of the rotorcraft; and

(2) Have a safety lock to prevent accidental opening.

[Revision note: Based on § 6.428]

§ 27.475 Fuel quantity indicator.

(a) Each fuel quantity indicator must be installed to indicate clearly to the flight crew the quantity of fuel in each tank in flight.

(b) When two or more tanks are closely interconnected by a gravity feed system and vented, and when it is impossible to feed from each tank separately, at least one fuel quantity indicator must be installed.

(c) Each exposed sight gauge must be installed and guarded to prevent damage.

[Revision note: Based on § 6.429]

OIL SYSTEM

§ 27.485 General.

(a) Each engine must have an independent oil system that can supply that engine with an appropriate quantity of oil at a temperature not exceeding that safe for continuous operation.

(b) The usable oil capacity of each system may not be less than the product of the endurance of the rotorcraft under critical operating conditions and the maximum oil consumption of the engine under the same conditions, plus a suitable margin to assure adequate circulation and cooling. Instead of a rational analysis of endurance and consumption, a usable oil capacity of one gallon for each 40 gallons of usable fuel may be used.

(c) The oil cooling provisions for each engine must be able to maintain the oil inlet temperature to that engine at or below the maximum established value. This must be shown by flight tests.

[Revision note: Based on § 6.440]

§ 27.487 Oil tank construction and installation.

Each oil tank must be designed and installed so that—

(a) It can withstand, without failure, all vibration, inertia, fluid, and struc-

tural loads to which it may be subjected in operation;

(b) It can withstand, without leakage, an internal pressure of five p.s.i.;

(c) It has an expansion space of not less than the greater of—

(1) 10 percent of the tank capacity; or

(2) One-half gallon;

(d) It is impossible to inadvertently fill the tank expansion space with the rotorcraft in the normal ground attitude;

(e) Adequate venting is provided; and

(f) Provision is made in the filler opening to prevent oil overflow from entering the oil tank compartment.

[Revision note: Based on § 6.441]

§ 27.489 Oil lines and fittings.

(a) Each oil line must be supported to prevent excessive vibration.

(b) Each oil line connected to components of the rotorcraft between which relative motion could exist must have provisions for flexibility.

(c) All flexible hose must be approved.

(d) Each oil line must have an inside diameter of not less than the inside diameter of the engine inlet or outlet. No line may have splices between connections.

[Revision note: Based on § 6.442]

§ 27.491 Oil drains.

(a) Accessible drains must be provided at the lowest point in the oil system to drain completely all parts of the system with the rotorcraft in its normal position on level ground.

(b) Each drain must discharge clear of all parts of the rotorcraft and have safety locks to prevent accidental opening.

[Revision note: Based on § 6.443]

§ 27.493 Oil quantity gauge.

An oil quantity indicator must be installed to indicate the oil quantity during the filling of each tank.

[Revision note: Based on § 6.444]

§ 27.495 Oil filters.

Each filter or strainer in the powerplant installation must be constructed and installed so that oil will flow at the normal rate through the rest of the system with the filter or strainer element completely blocked.

[Revision note: Based on § 6.447]

COOLING SYSTEM

§ 27.505 General.

(a) Each powerplant cooling system must be able to maintain the temperatures of powerplant components and engine fluids within the limits established for those components and fluids under all critical surface (ground or water) and flight operating conditions.

(b) Compliance with paragraph (a) of this section must be shown in tests conducted under the conditions prescribed in that paragraph.

[Revision note: Combines §§ 6.450 and 6.451 (1st sentence)]

§ 27.507 Cooling tests.

(a) *General.* For the tests prescribed in § 27.505(b), the following rules apply:

(1) If the tests are conducted under conditions deviating from the maximum anticipated air temperature specified in paragraph (b) of this section, all recorded powerplant temperatures must be corrected under paragraphs (c) and (d) of this section unless a more rational correction method is applicable.

(2) No corrected temperature determined under subparagraph (1) of this paragraph may exceed established limits.

(3) For reciprocating engines, all fuel used during the cooling tests must be of the minimum grade approved for the engines, and all mixture settings must be those normally used in the flight stages for which the cooling tests are conducted.

(4) The test procedures must be as prescribed in § 27.509.

(b) *Maximum anticipated air temperature.* For cooling tests, the maximum anticipated temperature (hot-day condition) is 100 degrees F. at sea level, decreasing from this value at the rate of 3.6 degrees F. per thousand feet of altitude above sea level up to the altitude at which a temperature of −69.7 degrees F. is reached, above which altitude the temperature is constant at −69.7 degrees F.

(c) *Correction factor.* The temperatures of all engine fluids and powerplant components (except cylinder barrels) for which temperature limits are established must be corrected by adding to those temperatures the difference between the maximum anticipated air temperature and the temperature of the ambient air at the time of the first occurrence of the maximum component or fluid temperatures recorded during the cooling test.

(d) *Correction factor for cylinder barrel temperatures.* Cylinder barrel temperatures must be corrected by adding to those temperatures 0.7 times the difference between the maximum anticipated air temperature and the temperature of the ambient air at the time of the first occurrence of the maximum cylinder barrel temperature recorded during the cooling test.

[Revision note: Based on § 6.451 (less 1st sentence)]

§ 27.509 Cooling test procedures.

(a) *General.* For each stage of flight, all cooling tests must be conducted with the rotorcraft—

(1) In the configuration most critical for cooling; and

(2) Under the conditions most critical for cooling.

(b) *Temperature stabilization.* For the purpose of the cooling tests, a temperature is "stabilized" when its rate of change is less than two degrees F. per minute. The following component and engine fluid temperature stabilization rules apply:

(1) For all rotorcraft, and for each stage of flight—

(i) All temperatures must be stabilized under the conditions from which entry is made into the stage of flight being investigated; or

(ii) If the entry condition normally does not allow all temperatures to stabilize, operation through the full entry condition must be conducted prior to entry into the stage of flight being investigated in order to allow all temperatures to attain their natural levels at the time of entry.

(2) For helicopters during the takeoff stage of flight, the climb at takeoff power must be preceded by a period of hover during which all temperatures are stabilized.

(c) *Duration of test.* For each stage of flight the tests must be continued until—

(1) All temperatures stabilize;

(2) That stage of flight is completed; or

(3) An operating limitation is reached.

[Revision note: Based on § 6.452]

INDUCTION AND EXHAUST SYSTEMS

§ 27.517 General.

The air induction system for each engine must supply all the air required by that engine when the rotorcraft is operated under all operating conditions and maneuvers for which certification is requested.

[Revision note: Based on § 6.460]

§ 27.519 Air induction.

(a) Each cold air induction system opening must be outside the cowling if backfire flames can emerge.

(b) If fuel can accumulate in any air induction system, that system must have drains that discharge fuel—

(1) Clear of the rotorcraft; and

(2) Out of the path of exhaust flames.

(c) Operation of turbine engines from idle power and r.p.m. to the power and r.p.m. necessary for lift-off may not result in pebble ingestion into the induction air inlet with the rotorcraft on a pebble bed at least 1½ inches deep, consisting of pebbles that—

(1) Can pass through one-half inch mesh screening but not through one-eighth inch mesh screening; and

(2) Are spread over an area that extends horizontally five feet beyond the tips of the main rotors.

[Revision note: Based on § 6.461]

§ 27.521 Induction system icing protection.

(a) *Reciprocating engines.* Each engine air induction system must have means to prevent and eliminate icing. Unless this is accomplished by other means, it must be shown that, in air free of visible moisture at a temperature of 30 degrees F., and with the engines at 75 percent of maximum continuous power—

(1) Each rotorcraft with sea level engines using conventional venturi carburetors has a preheater that can provide a heat rise of 90 degrees F.;

(2) Each rotorcraft with sea level engines using carburetors tending to prevent icing has a sheltered alternate source of air, and that the preheat supplied to the alternate air intake is not less than that provided by the engine cooling air downstream of the cylinders;

(3) Each rotorcraft with altitude engines using conventional venturi carburetors has a preheater capable of providing a rise of 120 degrees F.; and

(4) Each rotorcraft with altitude engines using carburetors tending to pre-

vent icing has a preheater that can provide a heat rise of—

(i) 100 degrees F.; or

(ii) If a fluid deicing system is used, at least 40 degrees F.

(b) *Turbine engines.* Each turbine engine must be able to operate throughout its flight power range, without adverse effect on engine operation or serious loss of power or thrust under the icing condition specified in Appendix C of Part 25 of this chapter.

[Revision note: Based on § 6.462]

§ 27.523 Exhaust system.

For each exhaust system—

(a) Provision must be made for thermal expansion of manifolds and pipes;

(b) Provision must be made to prevent local hot spots;

(c) All exhaust gases must discharge clear of the engine air intake, fuel system components, and drains;

(d) No exhaust pipe may be adjacent to, or under, any carburetor or fuel system part that is not protected against leakage;

(e) Exhaust gases may not impair pilot vision at night due to glare; and

(f) If significant traps exist, each turbine engine exhaust system must have drains discharging clear of the rotorcraft, in all normal ground and flight attitudes, to prevent fuel accumulation after the failure of an attempted engine start.

[Revision note: Based on § 6.463]

POWERPLANT CONTROLS AND ACCESSORIES

§ 27.533 Powerplant controls; general.

(a) All powerplant controls must conform with—

(1) The location and arrangement requirements of § 27.357; and

(2) The marking requirements of § 27.771.

(b) All flexible powerplant controls must be approved.

[Revision note: Based on § 6.470]

§ 27.535 Throttle controls.

(a) A separate throttle control must be provided for each engine.

(b) Throttle controls must be grouped and arranged to allow—

(1) The separate control of each engine; and

(2) The simultaneous control of all engines.

(c) Each throttle control must provide a positive and immediately responsive means of controlling its engine.

[Revision note: Based on § 6.471]

§ 27.537 Ignition switches.

(a) Means must be provided for quickly shutting off all ignition by the grouping of switches or by a master ignition switch.

(b) Each master ignition switch must have a guard to prevent its inadvertent operation.

[Revision note: Based on § 6.472]

§ 27.539 Mixture controls.

If mixture controls are provided—

(a) A separate control must be provided for each engine; and

(b) The controls must be grouped and arranged to allow—

(1) The separate control of each engine; and

(2) The simultaneous control of all engines.

[Revision note: Based on § 6.473]

§ 27.541 Powerplant accessories.

Each engine-mounted accessory must—

(a) Be approved for mounting on the engine involved; and

(b) Use the provisions on the engine for mounting.

[Revision note: Based on § 6.474]

POWERPLANT FIRE PROTECTION

§ 27.553 Ventilation.

Each compartment containing portions of the powerplant installation must have provision for ventilation.

[Revision note: Based on § 6.481]

§ 27.555 Shutoff means.

(a) Means must be provided to shut off all lines carrying flammable fluids into the engine compartment, except—

(1) Lines forming an integral part of an engine; and

(2) Engine oil system lines in powerplant installations using engines of less than 500 cu. in. displacement.

(b) Provision must be made to guard against inadvertent operation of each shutoff, and to make it possible for the crew to reopen it in flight after it has once been closed.

(c) Each shutoff valve and its controls must be on the remote side of the firewall from the engine if they cannot function under all fire conditions likely to result from an engine fire.

[Revision note: Based on § 6.482]

§ 27.557 Firewall.

(a) Each engine must be isolated by a firewall, shroud, or other equivalent means from all personnel compartments, structures, controls, rotor mechanisms, and other parts that are—

(1) Essential to a controlled landing; and

(2) Not protected under § 27.385.

(b) Each auxiliary power unit, combustion heater, and other combustion equipment to be used in flight, must be isolated from the rest of the rotorcraft by firewalls, shrouds, or other equivalent means.

(c) In complying with paragraphs (a) and (b) of this section, account must be taken of the probable path of a fire as affected by the airflow in normal flight and in autorotation.

(d) Each firewall and shroud must be constructed so that no hazardous quantity of air, fluids, or flame can pass from any engine compartment to other portions of the rotorcraft.

(e) Each opening in the firewall or shroud must be sealed with close-fitting, fireproof grommets, bushings, or firewall fittings.

(f) Each firewall and shroud must be fireproof and protected against corrosion.

[Revision note: Based on § 6.483]

§ 27.559 Engine cowling and engine compartment covering.

(a) Each cowling and engine compartment covering must be constructed and supported so that it can resist all vibration, inertia, and air loads to which it would be subjected in operation.

(b) Provision must be made to allow rapid and complete drainage of all portions of the cowling or engine compartment in all normal ground and flight attitudes.

(c) No drain may discharge where it might cause a fire hazard.

(d) Each cowling or engine compartment covering must be at least fire resistant.

(e) Each portion of the cowling or engine compartment covering that would be subject to high temperatures due to its proximity to exhaust system parts or exhaust gas impingement must be fireproof.

[Revision note: Based on § 6.484]

§ 27.561 Lines and fittings.

(a) Except as provided in paragraph (b) of this section, the following rules apply to each line and fitting carrying flammable fluids in any area subject to engine fire conditions:

(1) At least fire-resistant material must be used;

(2) If flexible hose is used, each assembly of hose and end fittings must be approved.

(3) The line and fitting must be located or shielded to prevent fluid leakage on surfaces hot enough to ignite the fluid.

(b) Paragraph (a) of this section does not apply to—

(1) Lines and fittings forming an integral part of an engine; and

(2) Vent and drain lines, and their fittings, whose failure will not result in, or add to, a fire hazard.

(c) All flammable fluid drains and vents must discharge clear of the induction system air inlet.

[Revision note: Based on § 6.485]

§ 27.563 Flammable fluids.

(a) Each fuel tank must be isolated from each engine by a firewall or shroud.

(b) For rotorcraft with engines of more than 900 cu. in. displacement—

(1) Each flammable fluid tank must be isolated as provided in paragraph (a) of this section; or

(2) The fluid in the tank, the design of the system, the materials used in the tank, the shutoff means, and all connections, lines, and controls must provide equal safety.

(c) Not less than one-half inch of clear airspace may be provided between each tank and each firewall or shroud isolating that tank, unless other equivalent means are used to prevent heat transfer from each engine compartment to the flammable fluid.

[Revision note: Based on § 6.486]

Subpart F—Equipment

GENERAL

§ 27.583 Function and installation.

Each item of installed equipment must—

(a) Be of a kind and design appropriate to its intended function;

(b) Be labeled as to its identification, function, or operating limitations, or any combination of these, as applicable;

(c) Be installed in accordance with limitations specified for that equipment; and

(d) Function properly in the rotorcraft.

[Revision note: Based on § 6.601]

§ 27.585 Required basic equipment.

(a) *General.* Each rotorcraft must contain all basic equipment prescribed in paragraphs (b) through (d) of this section.

(b) *Flight and navigation instruments.* The required flight and navigation instruments include the following:

(1) An airspeed indicator.

(2) An altimeter.

(3) A magnetic direction indicator.

(c) *Powerplant instruments.* The required powerplant instruments include the following:

(1) A carburetor air temperature indicator, for each engine equipped with a preheater that can provide a heat rise in excess of 60 degrees F.

(2) A cylinder head temperature indicator, for each—

(i) Air cooled engine;

(ii) Rotorcraft with cooling shutters; and

(iii) Rotorcraft for which compliance with § 27.507 is shown in any condition other than the most critical flight condition with respect to cooling.

(3) A fuel pressure indicator, for each pump-fed engine.

(4) A fuel quantity indicator, for each fuel tank.

(5) A manifold pressure indicator, for each altitude engine.

(6) An oil temperature warning device to indicate when the temperature exceeds a safe value in each main rotor drive gearbox (including all gearboxes essential to rotor phasing) having an oil system independent of the engine oil system.

(7) An oil pressure warning device to indicate when the pressure falls below a safe value in each pressure-lubricated main rotor drive gearbox (including all gearboxes essential to rotor phasing) having an oil system independent of the engine oil system.

(8) An oil pressure indicator for each engine.

(9) An oil quantity indicator for each oil tank.

(10) An oil temperature indicator for each engine.

(11) At least one tachometer to indicate the r.p.m. of each engine and, as applicable—

(i) The r.p.m. of the single main rotor;

(ii) The common r.p.m. of all main rotors whose speeds cannot vary appreciably with respect to each other; or

(iii) The r.p.m. of each main rotor whose speed can vary appreciably with respect to that of another main rotor.

(12) A warning device to indicate low fuel in each tank if an engine can be supplied with fuel from more than one tank. For the purpose of this subparagraph, the fuel in any tank is "low" when a five-minute usable supply exists with the rotorcraft in the most adverse feed condition for that tank, regardless of whether that condition can be sustained for the five minutes.

(13) Means to indicate to the pilot when each emergency pump is in operation.

(14) A gas temperature indicator for each turbine engine.

(15) Means to enable the pilot to determine the torque of each turboshaft engine, if a torque limitation is established for that engine in accordance with the provisions of § 27.739(e).

(d) *Miscellaneous equipment.* The required miscellaneous equipment includes the following:

(1) An approved seat for each occupant.

(2) An approved safety belt for each occupant.

(3) A master switch arrangement.

(4) A sufficient source of electrical energy, where electrical energy is necessary for operation of the rotorcraft.

(5) Electrical protective devices.

[Revision note: Combines §§ 6.602 through 6.605]

§ 27.587 Equipment, systems, and installations.

All equipment, systems, and installations whose functioning is necessary to show compliance with any regulation in this subchapter, must be designed and installed to—

(a) Ensure that they will reliably perform their intended functions under all reasonably foreseeable operating conditions; and

(b) Guard against hazards to the rotorcraft in the event of their malfunctioning or failure.

[Revision note: Based on § 6.606]

INSTRUMENTS; INSTALLATION

§ 27.601 Arrangement and visibility.

(a) Each flight, navigation, and powerplant instrument for use by any pilot must be easily visible to him.

(b) For multiengine rotorcraft, identical powerplant instruments must be located to prevent confusion as to the engines to which they relate.

(c) Instrument panel vibration may neither damage, nor seriously impair, the readability or accuracy of any instrument.

[Revision note: Based on § 6.611]

§ 27.603 Flight and navigation instruments.

(a) *Airspeed indicating system.* The airspeed indicating system must be calibrated in flight at all forward speeds of 10 m.p.h. and over. At all forward speeds above 80 percent of the climbout speed, the airspeed indicator must indicate true airspeed, at sea level and with a standard atmosphere, to within an allowable installation error of not more than the greater of—

(1) ±3 percent of the calibrated airspeed; or

(2) Five m.p.h.

(b) *Static air-vent system.* Instruments with static air case connections must be so vented that the influence of rotorcraft speed, the opening and closing of windows, airflow variation, moisture, or other foreign matter does not seriously affect their accuracy.

(c) *Magnetic direction indicator.* The magnetic direction indicator must be installed so that its accuracy is not excessively affected by the rotorcraft's vibration or magnetic fields. The calibrated installation must be such that the deviation in level flight does not exceed 10 degrees on any heading. A suitable calibration placard must be provided as specified in § 27.763.

[Revision note: Based on § 6.612]

§ 27.605 Powerplant instruments.

(a) *General.* Each powerplant instrument must conform to the applicable requirements of this section.

(b) *Instrument lines.* Instrument lines must conform to the provisions of § 27.467. Each line carrying flammable fluids or gases under pressure must have restricted orifices or equivalent safety devices at the source of the pressure to prevent the escape of excessive fluid or gas in case of line failure.

Fuel quantity indicator. Each fuel quantity indicator must be calibrated to read "zero" during level flight when the quantity of fuel remaining in the tank is equal to the unusable fuel supply determined under § 27.459.

(d) *Fuel flowmeter system.* If a fuel flowmeter system is installed, each metering component must include a means for bypassing the fuel supply if malfunctioning of that component severely restricts fuel flow.

(e) *Oil quantity indicator.* Means must be provided to indicate the quantity of oil in each tank with the rotorcraft—

(1) On the ground; and

(2) In flight, if an oil transfer system or reserve oil supply system is installed.

[Revision note: Based on § 6.613]

ELECTRICAL SYSTEMS AND EQUIPMENT

§ 27.615 Installation.

(a) Each electrical system must be free from hazards in itself, in its method of operation, and in its effects on other parts of the rotorcraft.

(b) All electrical equipment must be adequate for its intended use.

(c) Each electrical system must be protected from fuel, oil, water, other detrimental substances, and mechanical damage.

[Revision note: Based on § 6.617]

§ 27.617 Electric power sources.

(a) Each electric power source, its transmssiion cables, and its associated control and protective devices must be able to furnish the required power at the proper voltage to all load circuits essential for safe operation.

(b) Compliance with paragraph (a) of this section must be shown by means of an electrical load analysis, or by electrical measurements that take into account all electrical loads applied to the electrical system, in probable combinations and for probable durations. In addition—

(1) At least one generator must be installed if the system supplies power to load circuits essential for safe operation;

(2) The sources must function properly when connected in combination or independently;

(3) The failure or malfunction of any source may not impair the ability of any remaining source to supply load circuits essential to safe operation; and

(4) The source controls must be arranged to allow independent operation of each source.

[Revision note: Based on § 6.618]

§ 27.619 Storage battery design and installation.

(a) Each storage battery must be designed and installed as prescribed in this section.

(b) Safe cell temperatures and pressures must be maintained during all probable charging and discharging conditions. No uncontrolled increase in cell temperature may result when the battery is recharged (after previous complete discharge)—

(1) At maximum regulated voltage;

(2) During a flight of maximum duration; and

(3) Under the most adverse cooling condition likely to occur in service.

(c) Compliance with paragraph (b) of this section must be shown in tests unless experience with similar batteries and installations has shown that maintaining safe cell temperatures and pressures presents no problem.

(d) No explosive or toxic gases emitted by any battery in normal operation, or as the result of any probable malfunction in the charging system or battery installation, may accumulate in hazardous quantities within the rotorcraft.

(e) No corrosive fluids or gases that may escape from the battery may damage surrounding rotorcraft structures or adjacent essential equipment.

[Revision note: Based on § 6.619]

§ 27.621 Generator.

Each generator must be able to deliver its continuous rated power.

[Revision note: Based on § 6.620]

§ 27.623 Generator controls.

(a) The generator voltage control equipment must be able to dependably regulate each generator output within rated limits.

(b) Each generator must have a reverse current cutout to disconnect that generator from the battery and from all other generators when sufficient reverse current exists to damage that generator.

[Revision note: Based on § 6.621]

§ 27.625 Electric power system instruments.

Means must be provided to indicate to appropriate crewmembers all electric power system quantities essential for the safe operation of the system. For direct current systems, an ammeter which can be switched into each generator feeder may be used. When only one generator is installed, the ammeter may be located in the battery feeder.

[Revision note: Based on § 6.622]

§ 27.627 Master switch arrangement.

(a) A master switch arrangement must be provided to allow ready disconnection of all electric power sources from the main bus. The point of disconnection must be adjacent to the sources controlled by the switch.

(b) Load circuits may be connected so that they remain energized after the switch is opened, if they are protected by circuit protective devices, rated at five amperes or less, adjacent to the electric power source.

[Revision note: Based on § 6.623]

§ 27.629 Master switch installation.

The master switch or its controls must be so installed that the switch is easily discernible and accessible to a member of the crew in flight.

[Revision note: Based on § 6.624]

§ 27.631 Circuit protective devices.

(a) Protective devices, such as fuses or circuit breakers, must be installed in all electrical circuits other than—

(1) The main circuits of starter motors; and

(2) Circuits in which no hazard is presented by their omission.

(b) No protective device may protect more than one circuit essential to flight safety.

(c) Each resettable circuit protective device, that is, "trip free" device in which the tripping mechanism cannot be overridden by the operating control, must be designed so that—

(1) A manual operation is required to restore service after tripping; and

(2) When an overload or circuit fault exists, the device will open the circuit irrespective of the position of the operating control.

[Revision note: Based on § 6.625 (less last sentence of note following)]

§ 27.633 Protective devices installation.

(a) If the ability to reset a circuit breaker or to replace a fuse is essential to safety in flight, that circuit breaker or fuse must be so located and identified that it can be readily reset or replaced in flight; and

(b) If fuses are used, one spare of each rating, or 50 percent spare fuses of each rating, whichever is greater, must be provided.

[Revision note: Based on § 6.626]

§ 27.635 Electric cables.

(a) Each electric connecting cable must be of adequate capacity.

(b) Each cable that would overheat in the event of circuit overload or fault must be at least flame resistant and may not emit dangerous quantities of toxic fumes.

[Revision note: Based on § 6.627]

§ 27.637 Switches.

Each switch must be—

(a) Capable of carrying its rated current;

(b) Accessible to the crew; and

(c) Labeled as to operation and the circuit controlled.

[Revision note: Based on § 6.628]

LIGHTS

§ 27.647 Instrument lights.

The instrument lights must—

(a) Provide enough illumination to make all instruments, switches, and other devices for which they are provided easily readable; and

(b) Be installed so that—

(1) Their direct rays are shielded from the pilot's eyes; and

(2) No objectionable reflections are visible to the pilot.

[Revision note: Based on § 6.630]

§ 27.649 Landing lights.

(a) Each installed landing or hovering light must be approved.

(b) Each landing light must be installed so that—

(1) No objectionable glare is visible to the pilot;

(2) The pilot is not adversely affected by halation; and

(3) It provides the necessary illumination for night operation, including hovering and landing.

(c) At least one separate switch must be provided, as applicable—

(1) For each separately installed light; and

(2) For each group of lights installed at a common location.

[Revision note: Based on § 6.631]

§ 27.651 Position light system installation.

(a) *General.* Each part of each position light system must conform to the applicable requirements of this section and each system as a whole must conform to the requirements of §§ 27.653 through 27.663.

(b) *Forward position lights.* Forward position lights must consist of a red and a green light spaced laterally as far apart as practicable and installed forward on the rotorcraft in such a location that, with the rotorcraft in the normal flying position, the red light is on the left side and the green light is on the right side. Each light must be approved.

(c) *Rear position light.* The rear position light must be a white light mounted as far aft as practicable, and must be approved.

(d) *Circuit.* The two forward position lights and the rear position light must constitute a single circuit.

(e) *Light covers and color filters.* Each light cover or color filter must be at least flame resistant and must be constructed so that it will not change color or shape or suffer any appreciable loss of light transmission during normal use.

[Revision note: Based on § 6.632 (less note following (a))]

§ 27.653 Position light system dihedral angles.

(a) Each forward and rear position light must, as installed, show unbroken light within the dihedral angles described in this section.

(b) Dihedral angle *L* (left) is formed by two intersecting vertical planes, the first parallel to the longitudinal axis of the rotorcraft, and the other at 110 degrees to the left of the first, as viewed when looking forward along the longitudinal axis.

(c) Dihedral angle *R* (right) is formed by two intersecting vertical planes, the first parallel to the longitudinal axis of the rotorcraft, and the other at 110 degrees to the right of the first, as viewed when looking forward along the longitudinal axis.

(d) Dihedral angle *A* (aft) is formed by two intersecting vertical planes making angles of 70 degrees to the right and to the left, respectively, to a vertical plane passing through the longitudinal axis, as viewed when looking aft along the longitudinal axis.

[Revision note: Based on § 6.633]

§ 27.655 Position light distribution and intensities.

(a) *General.* The intensities prescribed in this section must be provided by new equipment with all light covers and color filters in place. All intensities must be determined with the light source operating at a steady value equal to the average luminous output of the source at the normal operating voltage of the rotorcraft. The light distribution and intensity of each position light must conform to the provisions of paragraph (b) of this section.

(b) *Forward and rear position lights.* The light distribution and intensities of forward and rear position lights must be expressed in terms of minimum intensities in the horizontal plane, minimum intensities in any vertical plane, and maximum intensities in overlapping beams, within dihedral angles *L*, *R*, and *A*, and must conform to the following provisions:

(1) *Intensities in the horizontal plane.* Each intensity in the horizontal plane, that is, the plane containing the longitudinal axis of the rotorcraft and perpendicular to the plane of symmetry of the rotorcraft, must equal or exceed the values in § 27.657.

(2) *Intensities in any vertical plane.* Each intensity in any vertical plane, that is, plane perpendicular to the horizontal plane, must equal or exceed the appropriate value in § 27.659, where *I* is the minimum intensity prescribed in § 27.657 for the corresponding angles in the horizontal plane.

(3) *Intensities in overlaps between adjacent signals.* No intensity in any overlap between adjacent signals may exceed the values given in § 27.661, except that higher intensities in overlaps are acceptable with the use of main beam intensities substantially greater than the minima specified in §§ 27.657 and 27.659 if the overlap intensities in relation to the main beam intensities do not adversely affect signal clarity. When the peak intensity of the forward position lights is greater than 100 candles, the maximum overlap intensities between them may exceed the values given in § 27.661 if the overlap intensity in Area A is not greater than 10 percent of peak position light intensity and the overlap intensity in Area B is not greater than 2.5 percent of peak position light intensity.

[Revision note: Combines §§ 6.634 and 6.634–1 (less footnote 2)]

§ 27.657 Minimum intensities in the horizontal plane of forward and rear position lights.

Each position light intensity must equal or exceed the applicable values in the following table:

Dihedral angle (light included)	Angle from right or left of longitudinal axis, measured from dead ahead	Intensity (candles)
L and *R* (forward red and green).	0° to 10°	40
	10° to 20°	30
	20° to 110°	5
A (rear white)	110° to 180°	20

[Revision note: Based on Figure 6–1]

§ 27.659 Minimum intensities in any vertical plane of forward and rear position lights.

Each position light intensity must equal or exceed the applicable values in the following table:

Angle above or below the horizontal plane:	*Intensity*
0°	1.00 *I*.
0° to 5°	0.90 *I*.
5° to 10°	0.80 *I*.
10° to 15°	0.70 *I*.
15° to 20°	0.50 *I*.
20° to 30°	0.30 *I*.
30° to 40°	0.10 *I*.
40° to 90°	0.05 *I*.

[Revision note: Based on Figure 6–2]

§ 27.661 Maximum intensities in overlapping beams of forward and rear position lights.

No position light intensity may exceed the applicable values in the following table, except as provided in § 27.655 (b) (3).

Overlaps	Maximum intensity	
	Area A (candles)	Area B (candles)
Green in dihedral angle *L*	10	1
Red in dihedral angle *R*	10	1
Green in dihedral angle *A*	5	1
Red in dihedral angle *A*	5	1
Rear white in dihedral angle *L*	5	1
Rear white in dihedral angle *R*	5	1

Where—

(a) Area A includes all directions in the adjacent dihedral angle that pass through the light source and intersect the common boundary plane at more than 10 degrees but less than 20 degrees; and

(b) Area B includes all directions in the adjacent dihedral angle that pass through the light source and intersect the common boundary plane at more than 20 degrees.

[Revision note: Combines Figure 6–3 and note following]

§ 27.663 Color specifications.

Each position light color must have the applicable International Commission on Illumination chromaticity coordinates as follows:

(a) *Aviation red*—

"*y*" is not greater than 0.335; and
"*z*" is not greater than 0.002.

(b) *Aviation green*—

"*x*" is not greater than $0.440-0.320y$;
"*x*" is not greater than $y-0.170$; and
"*y*" is not less than $0.390-0.170x$.

(c) *Aviation white*—

"*x*" is not less than 0.350;
"*x*" is not greater than 0.540; and
"$y-y_0$" is not numerically greater than 0.01, "y_0" being the *y* coordinate of the Planckian radiator for which $x_0=x$.

[Revision note: Based on § 6.635]

§ 27.665 Riding light.

(a) Each installed riding light must be able to—

(1) Show a white light for at least two miles at night under clear atmospheric conditions; and

(2) Show a maximum practicable unbroken light with the rotorcraft on the water.

(b) Externally hung lights are allowed.

[Revision note: Based on § 6.636]

§ 27.667 Anticollision light system.

(a) *General.* If certification for night operation is requested, the rotorcraft must have an anticollision light system that—

(1) Consists of one or more approved anticollision lights so located that their emitted light will not adversely affect the crew's vision or detract from the conspicuity of the position lights; and

(2) Conforms with the provisions of paragraphs (b) through (f) of this section.

(b) *Field of coverage.* The system must consist of enough lights to illuminate all vital areas around the rotorcraft, with due consideration of the physical configuration and flight characteristics of the rotorcraft. The field of coverage must extend in all directions within at least 30 degrees above and 30 degrees below the horizontal plane of the rotorcraft, except that there may be solid angles of obstructed visibility totaling not more than 0.5 steradians.

(c) *Flashing characteristics.* The arrangement of the system, that is, the number of light sources, beam width, speed or rotation, and other characteristics, must give an effective flash frequency of not less than 40, nor more than 100, cycles per minute. The effective flash frequency is the frequency at which the rotorcraft's complete anticollision light system is observed from a distance, and applies to all sectors of light including all overlaps that exist when the system consists of more than one light source. In overlaps, flash frequencies may exceed 100, but not 180, cycles per minute.

(d) *Color.* The color of each anticollision lights must be aviation red and must conform to § 27.663(a).

(e) *Light intensity.* The minimum light intensities in all vertical planes, measured with the red filter and expressed in terms of "effective" intensities, must conform to paragraph (f) of this section. The following relation must be assumed:

$$I_e=\frac{\int_{t_1}^{t_2} I(t)\,dt}{0.2+(t_2-t_1)};$$

where:

I_e = effective intensity (candles).
$I(t)$ = instantaneous intensity as a function of time.
$t_2 - t_1$ = flash time interval (seconds).

Normally, the maximum value of effective intensity is obtained when t_2 and t_1 are so chosen that the effective intensity is equal to the instantaneous intensity at t_2 and t_1.

(f) *Minimum effective intensities for anticollision lights.* Each anticollision light effective intensity must equal or exceed the applicable values in the following table.

Angle above or below the horizontal plane:	*Effective intensity (candles)*
0° to 5°	100
5° to 10°	60
10° to 20°	20
20° to 30°	10

[Revision note: Combines §§ 6.637 and Figure 6-4]

SAFETY EQUIPMENT

§ 27.677 Accessibility.

All required safety equipment to be used by the crew in an emergency, such as flares and automatic liferaft releases, must be readily accessible.

[Revision note: Based on § 6.640]

§ 27.679 Flares.

(a) If parachute flares are installed—
(1) Each flare must be approved; and
(2) The rotorcraft structure must be able to withstand all recoil loads involved in the ejection of the flares.
(b) Each flare must be installed so that—
(1) It is releasable from the pilot compartment;
(2) The probability of accidental discharge is minimized; and
(3) Ejection does not endanger the rotorcraft or its occupants. Compliance with paragraph (a)(3) of this section must be shown in flight.

[Revision note: Combines §§ 6.641 and 6.642]

§ 27.681 Safety belts.

(a) Each rotorcraft must have safety belts that—
(1) Are approved; and
(2) Conform to paragraphs (b) and (c) of this section.
(b) In no case may the rated strength of any belt be less than that corresponding with the specified ultimate load factors, considering the dimensional characteristics of the belt installation for the specific seat or berth arrangement.
(c) Each belt must be attached so that no part of its anchorage can fail at any load lower than that corresponding with the specified ultimate load factors.

[Revision note: Based on § 6.643]

§ 27.683 Emergency flotation and signaling equipment.

(a) All emergency flotation and signaling equipment required by any operating rule in this chapter must conform to the applicable requirements of this section.
(b) Each raft and life preserver must be approved and must be installed so that it is readily available to the crew and passengers.
(c) Each raft that is released automatically or released by the pilot must be attached to the rotorcraft by means of lines to keep it alongside the rotorcraft. The strength of each line must be such that it will break before submerging the empty raft to which it is attached.
(d) Each signaling device must be free from hazard in its operation and must be installed in an accessible location.

[Revision note: Based on § 6.644]

MISCELLANEOUS EQUIPMENT

§ 27.693 Hydraulic systems.

(a) *Design.* Each system and its elements must withstand, without yielding, all structural loads expected in addition to hydraulic loads.
(b) *Tests.* Each system must be substantiated by proof pressure tests. When proof tested, no part of any system may fail, malfunction, or experience a permanent set. The proof load of each system must be at least 1.5 times the maximum operating pressure of that system.
(c) *Accumulators.* No hydraulic accumulator or pressurized reservoir may be installed on the engine side of any firewall unless it forms an integral part of an engine.

[Revision note: Based on § 6.650]

Subpart G—Operating Limitations and Information

GENERAL

§ 27.721 Operating limitations and information.

Each operating limitation and all other information concerning the rotorcraft that is necessary for safe operation, must be—
(a) Included in the rotorcraft flight manual;
(b) Expressed in markings and placards; and
(c) Made available to each crewmember.

[Revision note: Based on § 6.700 (less (a))]

OPERATING LIMITATIONS

§ 27.731 Airspeed limitations; general.

When airspeed limitations are a function of weight, weight distribution, altitude, rotor speed, power, or other factors, airspeed limits corresponding with all critical combinations of these factors must be established.

[Revision note: Based on § 6.710]

§ 27.733 Never-exceed speed V_{NE}.

(a) The never-exceed speed V_{NE} must be established so that it is—
(1) Not less than V_Y with all engines at maximum continuous power; and
(2) Not greater than the lesser of—
(i) $0.9V$ established under § 27.127; and
(ii) 0.9 times the maximum speed shown under § 27.93.
(b) V_{NE} may not vary with altitude and rotor r.p.m., unless the ranges of these variables are large enough to allow an operationally practical and safe variation of V_{NE}.

[Revision note: Based on § 6.711]

§ 27.735 Operating speed range.

An operating speed range must be established.

[Revision note: Based on § 6.712]

§ 27.737 Rotor speed.

(a) *Maximum power off (autorotation.)* The maximum power-off rotor speed must be established so that it does not exceed 95 percent of the lesser of—
(1) The maximum design r.p.m. determined under § 27.127(b); and
(2) The maximum r.p.m. shown during the type tests.
(b) *Minimum power off.* The minimum power-off rotor speed must be established so that it is not less than 105 percent of the greater of—
(1) The minimum shown during the type tests; and
(2) The minimum determined by design substantiation.
(c) *Minimum power on.* The minimum power-on rotor speed must be established so that it is—
(1) Not less than the greater of—
(i) The minimum shown during the type tests; and
(ii) The minimum determined by design substantiation; and
(2) Not higher than a value determined in compliance with § 27.27(a)(1) and (b)(1).

[Revision note: Based on § 6.713 (less introductory paragraph)]

§ 27.739 Powerplant limitations.

(a) *General.* The powerplant limitations prescribed in this section must be established so that they do not exceed the corresponding limits for which the engines are type certificated.
(b) *Takeoff operation.* The powerplant takeoff operation must be limited by—
(1) The maximum rotational speed, which may not be greater than—
(i) The maximum value determined by the rotor design; or
(ii) The maximum value shown during the type tests;
(2) The maximum allowable manifold pressure;
(3) The time limit for the use of the power corresponding to the limitations established in subparagraphs (1) and (2) of this paragraph;
(4) If the time limit in subparagraph (3) of this paragraph exceeds two minutes; and the maximum allowable cylinder head, coolant outlet, or oil temperatures;
(5) The gas temperature limits for turbine engines over the range of operating and atmospheric conditions for which certification is requested.
(c) *Continuous operation.* The continuous operation must be limited by—
(1) The maximum rotational speed, which may not be greater than—
(i) The maximum value determined by the rotor design; or
(ii) The maximum value shown during the type tests;
(2) The minimum rotational speed shown in compliance with the rotor speed requirements in § 27.737(c); and
(3) The gas temperature limits for turbine engines over the range of operating and atmospheric conditions for which certification is requested.

(d) *Fuel grade or designation.* The minimum fuel grade (for reciprocating engines), or fuel designation (for turbine engines), must be established so that it is not less than that required for the operation of the engines within the limitations in paragraphs (b) and (c) of this section.

(e) *Turboshaft engine torque.* For rotorcraft with main rotors driven by turboshaft engines, and which do not have a torque limiting device in the transmission system, the following rules apply:

(1) A limit engine torque must be established if the maximum torque that the engine can exert is greater than—

(i) The torque that the rotor drive system is designed to transmit; or

(ii) The torque that the main rotor assembly is designed to withstand in showing compliance with § 27.217(e).

(2) The limit engine torque established under subparagraph (1) of this paragraph may not exceed the lesser of the torques specified in subparagraph (1) (i) or (ii) of this paragraph.

[Revision note: Based on § 6.714]

§ 27.741 Weight and center of gravity.

The weight and center of gravity limitations determined under §§ 27.23 and 27.25, respectively, must be established as operating limitations.

[Revision note: Based on § 6.716]

§ 27.743 Minimum flight crew.

The minimum flight crew for which certification is requested must be sufficient for safe operation, considering—

(a) The workload on individual crewmembers;

(b) The accessibility and ease of operation of all necessary controls by the appropriate crewmember; and

(c) The kind of operation authorized under § 27.745.

[Revision note: Based on § 6.718]

§ 27.745 Limitations on operation.

The kinds of operation to which a rotorcraft is limited are established on the basis of flight characteristics and installed equipment.

[Revision note: Based on § 6.717]

§ 27.747 Maintenance manual.

Each rotorcraft must have a maintenance manual with all information that the applicant considers essential for proper maintenance, including recommended limits on service life or retirement periods for major components. These components must be identified by serial number or equivalent means.

[Revision note: Based on § 6.719]

MARKINGS AND PLACARDS

§ 27.757 General.

(a) The rotorcraft must contain—

(1) All markings and placards specified in §§ 27.761 through 27.773; and

(2) All additional information, instrument markings, and placards required for the safe operation of rotorcraft with unusual design, operating or handling characteristics.

(b) Each marking and placard prescribed in paragraph (a) of this section—

(1) Must be displayed in a conspicuous place; and

(2) May not be easily erased, disfigured, or obscured.

[Revision note: Based on § 6.730]

§ 27.759 Instrument markings; general.

For each instrument—

(a) When markings are placed on the cover glass of the instrument, provision must be made to maintain the correct alignment of the glass cover with the face of the dial; and

(b) Each arc and line must be of sufficient width, and so located, that it is clearly visible to the pilot.

[Revision note: Based on § 6.731]

§ 27.761 Airspeed indicator.

(a) Each airspeed indicator must be marked to show indicated airspeed and to conform with paragraphs (b) through (d) of this section.

(b) A red radial line must be used to indicate the limit beyond which operation is dangerous.

(c) A yellow arc must be used to indicate the precautionary operating range.

(d) A green arc must be used to indicate the safe operating range.

[Revision note: Based on § 6.732]

§ 27.763 Magnetic direction indicator.

(a) A placard conforming to this section must be installed on, or close to, the magnetic direction indicator.

(b) The placard must show the calibration of the instrument in level flight with all engines operating.

(c) The placard must state whether the calibration was made with radio receivers on or off.

(d) Each calibration reading must be in terms of magnetic headings in not greater than 45 degree increments.

[Revision note: Based on § 6.733]

§ 27.765 Powerplant instruments.

For each required powerplant instrument—

(a) Each maximum and, if applicable, minimum safe operating limit must be marked with a red radial line;

(b) Each normal operating range must be marked with a green arc not extending beyond the maximum and minimum safe operating limits; and

(c) Each takeoff and precautionary range must be marked with a yellow arc.

[Revision note: Based on § 6.734]

§ 27.767 Oil quantity indicator.

Each oil quantity indicator must be marked in sufficient increments to indicate readily and accurately the quantity of oil.

[Revision note: Based on § 6.735]

§ 27.769 Fuel quantity indicator.

If the unusable fuel supply for any tank exceeds one gallon, or five percent of the tank capacity, whichever is greater, a red arc must be marked on its indicator extending from the calibrated zero reading to the lowest reading obtainable in level flight.

[Revision note: Based on § 6.736 (less last sentence)]

§ 27.771 Control markings.

(a) Each cockpit control must be plainly marked as to its function and method of operation.

(b) For powerplant fuel controls—

(1) Each tank selector control must be marked to indicate, for all crossfeed positions, the position corresponding to each tank controlled;

(2) If safe operation requires the use of any tanks in a specific sequence, that sequence must be marked on, or adjacent to, the selector for those tanks;

(3) Each valve control for each engine of multiengine rotorcraft must be marked to indicate the position corresponding to each engine controlled; and

(4) The capacity of each tank must be marked on, or adjacent to, each selector controlling that tank.

(c) For accessory, auxillary, and emergency controls—

(1) Each essential visual position indicator, such as those showing rotor pitch or landing gear position, must be marked so that each crewmember can determine at any time the position of the unit to which it relates; and

(2) Each emergency control must be colored red and marked as to method of operation.

[Revision note: Based on § 6.737]

§ 27.773 Miscellaneous markings and placards.

(a) *Baggage and cargo compartments, and ballast location.* Each baggage and cargo compartment, and each ballast location must have a placard stating all limitations on contents, including weight, that are necessary under the loading requirements.

(b) *Seats.* If the maximum allowable weight to be carried in a seat is less than 170 pounds, a placard stating such lesser weight must be permanently attached to the seat structure.

(c) *Fuel and oil filler openings.* The following must be marked on, or adjacent to, each appropriate filler cover:

(1) The word "fuel", the minimum fuel grade or designation for the engines, and the usable fuel capacity of the tank.

(2) The word "oil" and the oil tank capacity.

(d) *Emergency exit placards.* Each placard and operating control for each emergency exit must be colored red. A placard must be located adjacent to each emergency exit control and must clearly indicate the location of that exit and its method of operation.

(e) *Operating limitation placard.* A placard must be provided in clear view of the pilot stating: "This (helicopter, gyrodyne, etc.) must be operated in compliance with the operating limitations specified in the FAA approved rotorcraft flight manual."

(f) *Safety provisions.* Safety provisions must be marked as follows:

(1) Each safety equipment control to be operated by the crew in emergency,

such as flares and automatic liferaft releases, must be plainly marked as to its method of operation.

(2) Each location, such as a locker or compartment, that carries any fire extinguishing, signaling, or other life saving equipment must be marked accordingly.

(g) *Tail rotor.* Each tail rotor must be marked so that its disc is conspicuous under all normal ground conditions.

[Revision note: Based on § 6.738]

ROTORCRAFT FLIGHT MANUAL

§ 27.783 Manuals, markings, and placards.

(a) *Furnishing information.* The applicable information in §§ 27.785 through 27.789 must be furnished—

(1) For each rotorcraft other than a helicopter, in a rotorcraft flight manual; and

(2) For each helicopter, in a rotorcraft flight manual or in any combination of manuals, markings, and placards.

(b) *Approval of portions of manuals.* Except for helicopters for which the requirements of paragraph (a)(2) of this section are met solely by means of markings or placards, each portion of any manual containing information prescribed in §§ 27.785 through 27.789 must be approved, segregated, identified, and clearly distinguished from each unapproved portion of that manual.

(c) *Additional information.* All information not specified in §§ 27.785 through 27.789 that is required for safe operation because of unusual design, operating, or handling characteristics, must be furnished.

[Revision note: Based on § 6.740]

§ 27.785 Operating limitations.

(a) *Airspeed and rotor limitations.* All information necessary for the marking of airspeed and rotor limitations on, or adjacent to, their respective indicators must be furnished. In addition, the significance of each limitation and of the color coding must be explained.

(b) *Powerplant limitations.* Information must be furnished to explain all powerplant limitations, and to allow marking the instruments as required by §§ 27.765 through 27.769.

(c) *Weight and loading distribution.* The weight and center of gravity limits required by §§ 27.23 and 27.25 must be furnished, together with all items included in the empty weight in § 27.29(a). If the variety of possible loading conditions warrants, instructions must be included to allow ready observance of the limitations.

(d) *Flight crew.* When a flight crew of more than one is required, the number and functions of the minimum flight crew determined in accordance with § 27.743 must be described.

(e) *Kinds of operation.* Each kind of operation for which the rotorcraft and its equipment installations are approved must be listed.

(f) *Unusable fuel.* If the unusable fuel in any tank exceeds one gallon, or five percent of tank capacity, whichever is greater, warning must be provided to indicate to the flight personnel that the fuel remaining in that tank when the quantity indicator reads "zero" cannot be used safely in flight.

[Revision note: Based on § 6.741]

§ 27.787 Operating procedures.

The portion of the manual containing operating procedures must have information concerning all normal and emergency procedures, and other information necessary for safe operation, including takeoff and landing procedures and airspeeds.

[Revision note: Based on § 6.742]

§ 27.789 Performance information.

The rotorcraft must be furnished with—

(a) Sufficient information to determine the limiting height-speed envelope; and

(b) Information relative to—

(1) The hovering ceilings and the steady rates of climb and descent, as affected by all pertinent factors such as airspeed, temperature, and altitude; and

(2) The maximum safe wind for operation near the ground.

[Revision note: Based on § 6.743]

PART 27

DISTRIBUTION TABLE

Present section	*Revised section*
6.0	27.1.
6.1(a)(1)	Part 1 [New].
6.1(a)(2)	Surplusage.
6.1(a) (less (1) and (2))	Part 1 [New].
6.1(b)(1)	Part 1 [New].
6.1(b)(2)	Part 1 [New].
6.1(b)(3)	Part 1 [New].
6.1(b) (less (1)–(3))	Part 1 [New].
6.1(c)(1)	Part 1 [New].
6.1(c)(2)	Surplusage.
6.1(c)(3)	To be trfd. to Part 1 [New].
6.1(c)(4)	Part 1 [New].
6.1(c)(5)	Surplusage.
6.1(c)(6)	Surplusage.
6.1(c) (less (1)–(6))	Surplusage.
6.1(d)(1)–(d)(2)	Executed.
6.1(d)(3)	Surplusage.
6.1(d)(4)–(d)(5)	Executed.
6.1(d) (less (1)–(5))	To be trfd. to Part 1 [New].
6.1(e)(1) (1st sentence (less Symbol "IAS")).	Part 1 [New].
6.1(e)(1) (less 1st sentence) Symbol "IAS"	Surplusage. To be trfd. to Part 1 [New].
6.1(e)(2)	Part 1 [New].
6.1(e)(3) (less Symbol "EAS").	Part 1 [New].
Symbol "EAS"	To be trfd. to Part 1 [New].
6.1(e)(4) (less Symbol "TAS").	Part 1 [New].
Symbol "TAS"	To be trfd. to Part 1 [New].
6.1(e)(5)–(7)	To be trfd. to Part 1 [New].
6.1(e) (less (1)–(7))	To be trfd. to Part 1 [New].
6.1(f)(1)–(6)	To be trfd. to Part 1 [New].
6.1(f) (less (1)–(6))	Executed.
6.1(g)(1)–(3)	Part 1 [New].
6.1(g)(4)	To be trfd. to Part 1 [New].
6.1(g)(5)	Part 1 [New].
6.1(g) (less (1)–(5))	To be trfd. to Part 1 [New].
6.1(h)(1)–(5)	To be trfd. to Part 1 [New].
6.1(h) (less (1)–(5))	27.141.
6.1(i)(1)–(4)	Part 1 [New].

PART 27—Continued

DISTRIBUTION TABLE—continued

Present section	*Revised section*
6.1 (less (a)–(h) and (i)(1)–(i)(4)).	Part 1 [New].
6.10–6.19	To be trfd. to proposed Part 21 [New].
6.100(a)–(c)	27.21.
6.100 (less (a)–(c))	To be trfd. to proposed Part 21 [New].
6.101	27.23.
6.102	27.25.
6.103	27.27.
6.104	27.29.
6.105	27.31.
6.110	27.41.
6.111	27.43.
6.112	27.45.
6.113	27.47.
6.114	27.49.
6.114–1	Not a rule.
6.115	27.51.
6.116	27.53.
6.120	27.63.
6.121	27.65.
6.122	27.67.
6.123	27.69.
6.123	Not a rule.
6.130	27.79.
6.131	27.81.
6.132	27.83.
6.140	27.93.
6.140 (vibration aspect)	27.93.
6.140 (less vibration aspect)	27.273.
6.200	27.121.
6.201	27.123.
6.202 (less (c))	27.125.
6.202(c)	Surplusage.
6.203	27.125.
6.203–1	Not a rule.
6.204	27.127.
6.210	27.137.
6.211	27.139.
6.212	27.141.
6.213	27.143.
6.220	27.153.
6.221	27.155.
6.221–1	Not a rule.
6.222	27.157.
6.223	27.159.
6.224	27.161.
6.225	27.163.
6.226	27.163.
6.230	27.173.
6.231	27.175.
6.231–1	Not a rule.
6.232	27.177.
6.233	27.179.
6.234	27.181.
6.235	27.183.
6.236	27.185.
6.237 (less note following (a)).	27.187.
Note following § 6.237(a).	Appendix A.
6.240	27.193.
6.245	27.203.
6.246	27.205.
6.247	27.207.
6.250	27.217.
6.250–1	Not a rule.
6.251	27.219.
6.260	27.229.
6.300	27.251.
6.301	27.253.
6.302	27.255.
6.303	27.257.
6.304	27.259.
6.305	27.261.
6.306	27.263.
6.307(a)	27.265.
6.307(b)	27.267.
6.307(c)	27.269.
6.307 (less (a)–(c))	27.271.
6.310	27.281.
6.311	27.283.

PART 27—Continued

DISTRIBUTION TABLE—continued

Present section	Revised section
6.312	27.285.
6.313	27.287.
6.320	27.297.
6.321	27.299.
6.322	27.301.
6.323	27.303.
6.324	27.305.
6.325	27.307.
6.326	27.309.
6.327	27.311.
6.328	27.313.
6.335	27.323.
6.336	27.325.
6.337	27.327.
6.338	27.329.
6.340	Surplusage.
6.341	27.339.
6.342	27.341.
6.350	27.351.
6.351	27.353.
6.352	27.355.
6.353	27.357.
6.354	27.359.
6.355	27.361.
6.355–1 (less 1st sentence)	27.361.
6.355–1 (1st sentence)	Surplusage.
6.356	27.363.
6.357	27.365.
6.358	27.367.
6.380	Surplusage.
6.381	27.379.
6.382	27.381.
6.383	27.383.
6.384	27.385.
6.390	27.395.
6.391	27.397.
6.400	27.421.
6.400–1	27.421.
6.401 (less (c))	27.423.
6.401(c)	27.63.
6.402	27.425.
6.410	27.435.
6.411	27.437.
6.412	27.439.
6.413	27.441.
6.414	27.443.
6.415	27.445.
6.418	27.453.
6.419	27.455.
6.420	27.457.
6.421	27.459.
6.422	27.461.
6.423	27.463.
6.424 (less 2d and 3d sentences of note following (a)).	27.465.
2d and 3d sentences of note following § 6.424(a).	Not a rule.
6.425	27.467.
6.426	27.469.
6.427	27.471.
6.428	27.473.
6.429	27.475.
6.440	27.485.
6.441	27.487.
6.442	27.489.
6.443	27.491.
6.444	27.493.
6.447	27.495.
6.450	27.505.
6.451 (1st sentence)	27.505.
6.451 (less 1st sentence)	27.507.
6.452	27.509.
6.460	27.517.
6.461	27.519.
6.461–1	Not a rule.
6.462	27.521.
6.463	27.523.
6.470	27.533.
6.471	27.535.

PART 27—Continued

DISTRIBUTION TABLE—continued

Present section	Revised section
6.472	27.537.
6.473	27.539.
6.474	27.541.
6.480	Surplusage.
Note following § 6.480	Not a rule.
6.481	27.553.
6.482	27.555.
6.483	27.557.
6.484	27.559.
6.485	27.561.
6.486	27.563.
6.600	Surplusage.
6.601	27.583.
6.602 through 6.605	27.585.
6.606	27.587.
6.610	Surplusage.
6.611	27.601.
6.612	27.603.
6.613	27.605.
6.617	27.615.
6.618	27.617.
6.619	27.619.
6.620	27.621.
6.621	27.623.
6.622	27.625.
6.623	27.627.
6.624	27.629.
6.625 (less last sentence of note following).	27.631.
Last sentence of note following § 6.625.	Not a rule.
6.626	27.633.
6.627	27.635.
6.628	27.637.
6.630	27.647.
6.631	27.649.
6.632 (less note following (a)).	27.651.
Note following § 6.632(a)	Not a rule.
6.633	27.653.
6.634	27.655.
6.634–1 (less footnote 2)	27.655.
Footnote 2 of § 6.634–1	Not a rule.
Figure 6–1	27.657.
Figure 6–2	27.659.
Figure 6–3 and note following.	27.661.
6.635	27.663.
6.636	27.665.
6.637	27.667.
Figure 6–4	27.667.
6.637–1	Out of date.
6.640	27.677.
6.641	27.679.
6.642	27.679.
6.643	27.681.
6.644	27.683.
6.650	27.693.
6.700(a)	Surplusage.
6.700 (less (a))	27.721.
6.710	27.731.
6.711	27.733.
6.712	27.735.
6.713	27.737.
6.714	27.739.
6.716	27.741.
6.717	27.743.
6.718	27.745.
6.719	27.747.
6.730	27.757.
6.731	27.759.
6.732	27.761.
6.733	27.763.
6.734	27.765.
6.735	27.767.
6.736 (less last sentence)	27.769.
Last sentence of § 6.736	Surplusage.
6.737	27.771.
6.738	27.773.

PART 27—Continued

DISTRIBUTION TABLE—continued

Present section	Revised section
6.740	27.783.
6.741	27.785.
6.742	27.787.
6.743	27.789.
6.744	Surplusage.
6.750–6.751	To be trfd. to Part 45 [New].
Appendix A	Not a rule.
Appendix B:	
SR 392C	Expired.
SR 392D	Will expire.
SR 425C	To be trfd. to proposed Part 21 [New].

APPENDIX A—LIMIT DROP TEST; AN APPROVED METHOD OF SHOWING COMPLIANCE WITH § 27.187(b)

When an effective mass is used in showing compliance with § 27.187(b), the following formula may be used instead of more rational computations:

$$W_e = W\left[\frac{h+(1-L)d}{h+d}\right]; \text{ and } n = n_j\frac{W_e}{W}+L$$

where:

W_e = the effective weight to be used in the drop test (lbs.);

$W = W_M$ for main gear units (lbs.), equal to the static reaction on the particular unit with the rotorcraft in the most critical attitude. A rational method may be used in computing a main gear static reaction, taking into consideration the distance between the direction of the main wheel reaction and the aircraft c.g.

$W = W_N$ for nose gear units (lbs.), equal to the vertical component of the static reaction which would exist at the nose wheel, assuming the mass of the rotorcraft acting at the center of gravity and exerting a force of $1.0g$ downward and $0.25g$ forward.

$W = W_T$ for tailwheel units (lbs.), equal to whichever of the following is critical:

(1) The static weight on the tailwheel with the rotorcraft resting on all wheels; or

(2) The vertical component of the ground reaction which would occur at the tailwheel assuming the mass of the rotorcraft acting at the center of gravity and exerting a force of $1g$ downward with the rotorcraft in the maximum nose-up attitude considered in the nose-up landing conditions.

h = specified free drop height (inches).

L = ratio of assumed rotor lift to the rotorcraft weight.

d = deflection under impact of the tire (at the approved inflation pressure) plus the vertical component of the axle travel relative to the drop mass (inches).

n = limit inertia load factor.

n_j = the load factor during impact developed on the mass used in the drop test (i.e., the acceleration dv/dt in g's recorded in the drop test plus 1.0).

[Revision note: Based on note following § 6.237(a)]

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