

Rules and Regulations

Federal Register

Vol. 56, No. 185

Tuesday, September 24, 1991

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DEPARTMENT OF AGRICULTURE

Farmers Home Administration

7 CFR Part 1901

Revision of Farmers Home Administration Instruction To Give State Directors a Greater Latitude in Delegating Loan Approval Authority for All Field Loan Officers

AGENCY: Farmers Home Administration, USDA.

ACTION: Final rule.

SUMMARY: The Farmers Home Administration (FmHA) is amending its regulations to allow FmHA State Directors to delegate, revoke, increase, or decrease loan approval authorities for field officials. The intended effect is to improve credit quality and reduce losses to the Agency. This action is the result of an overall strategic plan to improve Agency oversight and credit quality.

EFFECTIVE DATE: September 24, 1991.

FOR FURTHER INFORMATION CONTACT:

Mary Ferguson, Loan Specialist, Insured Loans Branch, Farmer Programs Loan Making Division, FmHA, USDA, room 5428-S, 14th and Independence Avenue, SW., Washington, DC 20250, Telephone (202) 475-4018.

SUPPLEMENTARY INFORMATION: This action has been reviewed under USDA procedures established in Departmental Regulation 1512-1, which implements Executive Order 12291, and has been determined to be exempt from those requirements because it involves only internal Agency management. It is the policy of this Department to publish for comment rules relating to public property, loans, grants, benefits, or contracts notwithstanding the exemption in 5 U.S.C. 553 with respect to such rules. This action, however, is

not published for proposed rulemaking since it involves only internal agency management, making publication for comment unnecessary.

The amended regulations allow FmHA State Directors to delegate, revoke, increase, or decrease loan approval authorities for all loan approval officers for Farmers Programs loans only. Guidelines are provided to State Directors to ensure that only experienced, knowledgeable, and qualified approval officials are given loan approval authority consistent with the goal of improving credit quality and prevention of loan losses. State Directors will be given latitude to increase or decrease loan officers' loan approval limits.

A minor change is also made with regard to approval of documents to correct an oversight. The language in the Code of Federal Regulations does not reflect current language in FmHA's internal directives, and this change is necessary to broaden the list of guarantee documents which may be approved by specified individuals.

This action affects the following programs listed in the catalog of Federal Domestic Assistance:

- 10.406 Operating Loans
- 10.407 Farm Ownership Loans
- 10.416 Soil and Water Loans
- 10.404 Emergency Loans

This program/activity is not subject to the provisions of Executive Order 12372, which require intergovernmental consultation with State and local officials. The Soil and Water Program, however, is subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials. See 7 CFR part 3015, subpart V (48 FR 29115, June 24, 1983) and FmHA Instruction 1940-J, "Intergovernmental Review of Farmers Home Administration Programs and Activities." (December 23, 1983.)

This document has been reviewed in accordance with FmHA Instruction 1940-G, "Environmental Program." FmHA has determined that this final action does not constitute a major Federal action significantly affecting the quality of the human environment and, in accordance with the National Environment Policy Act of 1969, Public Law 91-190, an Environmental Impact Statement is not required.

List of Subjects in 7 CFR Part 1901

Agriculture, Authority delegations. Therefore, chapter XVIII, title 7, Code of Federal Regulations is amended as follows:

PART 1901—PROGRAM-RELATED INSTRUCTIONS

1. The authority citation for part 1901 is revised to read as follows:

Authority: 42 U.S.C. 1480, 7 U.S.C. 1989, 5 U.S.C. 301, 7 CFR 2.23 and 2.70.

Subpart A—Loan and Grant Approval Authorities

2. Section 1901.3 is amended by revising paragraph (b) as follows:

§ 1901.3 Approval documents.

* * * * *

(b) State Directors, District Directors, and County Supervisors are authorized to execute loan guarantee documents in accordance with approval authorities.

3. Section 1901.4 is amended by revising paragraph (f), by redesignating paragraphs (g) and (h) as (h) and (i), and by adding new paragraph (g) to read as follows:

§ 1901.4 Authorities and responsibilities.

* * * * *

(f) *Restrictions of approval authority for other than Farmer Programs loans by State Directors.* A State Director can make written restrictions or revocations, for not more than 6 months, of the authority given to an individual.

(g) *Restrictions of approval authority for Farmer Programs loans.* A State Director may delegate, revoke, increase, or decrease loan approval authority of individuals to amounts indicated in exhibit C and attachment 1 of exhibit C of this subpart.

* * * * *

Dated: August 18, 1991.

La Verne Ausman,
Administrator, Farmers Home
Administration.

[FR Doc. 91-22973 Filed 9-23-91; 8:45 am]

BILLING CODE 3410-07-M

DEPARTMENT OF ENERGY**Office of Fossil Energy****10 CFR Part 1048****Trespassing on the Strategic Petroleum Reserve**

AGENCY: Strategic Petroleum Reserve, Department of Energy.

ACTION: Final rule.

SUMMARY: The Department of Energy (DOE) is adopting final regulations providing for the security of persons and property in or upon the Strategic Petroleum Reserve. These regulations, which implement section 662 of the Department of Energy Organization Act, as amended (42 U.S.C. 7270b), prohibit unauthorized: (1) Entry into or upon Strategic Petroleum Reserve facilities or other real property subject to the jurisdiction, or in the custody of the Department of Energy under part B of title I of the Energy Policy and Conservation Act; or (2) carrying, transporting, or otherwise introducing or causing to be introduced into or upon such property a dangerous weapon, explosive, or other dangerous material likely to produce substantial injury or damage to persons or property. The regulations require posting of notices on Strategic Petroleum Reserve property stating the prohibitions of the regulations and the penalties for their violation. DOE issued these regulations on an interim final basis on January 17, 1991 (56 FR 1908).

EFFECTIVE DATE: October 24, 1991.

FOR FURTHER INFORMATION CONTACT: Durinda Robinson, Office of Chief Counsel, Department of Energy, Strategic Petroleum Reserve, 900 Commerce Road East, New Orleans, Louisiana 70123, (504) 734-4312.

SUPPLEMENTARY INFORMATION:**I. Background**

On January 17, 1991, DOE published a notice of interim final rulemaking to implement section 662 of the Department of Energy Organization Act, which was added to the Act by Public Law No. 100-531, October 25, 1988, 102 stat. 2652, to assure adequate security of the Strategic Petroleum Reserve and other associated real property under DOE jurisdiction. Section 662(a) authorizes the Secretary of Energy to issue regulations concerning unauthorized (1) entry into or upon the Strategic Petroleum Reserve, its storage or related facilities, or real property subject to the jurisdiction, administration, or in the custody of the Secretary under part B of title I of the

Energy Policy and Conservation Act (42 U.S.C. 6231-6247); and (2) carrying, transporting, or otherwise introducing or causing to be introduced into or upon such property any dangerous weapon, explosive, or other dangerous instrument or material likely to produce substantial injury or damage to persons or property.

Section 662(b) of the Act provides that any person who willfully violates regulations implementing section 662(a) is guilty of a misdemeanor, and shall be punished upon conviction by a fine of not more than \$5,000, imprisonment of not more than one year, or both. Under the Sentencing Reform Act of 1984, as amended (18 U.S.C. 3571), which contains alternative fines, a person found guilty of a misdemeanor under Federal law is subject to an increased fine of up to \$250,000.

In the preamble to the interim final rule, DOE invited interested persons to submit comments on the interim regulations by March 15, 1991. DOE did not receive any comments, and the interim regulations are being adopted as final regulations with one technical change. DOE is deleting § 1048.7, which prescribes the effective date of the regulations, as unnecessary.

II. Summary of the Final Regulations

For a detailed description of the final regulations, see the preamble to the interim final rule at 56 FR 1908. Briefly summarized, the final regulations: (1) Prohibit unauthorized entry and unauthorized introduction of weapons or dangerous materials into Strategic Petroleum Reserve facilities or other real property subject to the jurisdiction, or in the custody of the Department of Energy under part B of title I of the Energy Policy and Conservation Act; and (2) provide for the posting of notices on property subject to the regulations, stating the prohibitions contained in the regulations and the penalties for violations of the regulations.

III. Procedural Requirements**1. Review Under Executive Order No. 12291**

As stated in the preamble to the interim final rule, DOE has determined that these regulations do not constitute a "major rule" subject to the requirements of Executive Order No. 12291 because they are not likely to result in: (1) An annual effect on the economy of \$100 million or more; (2) a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or (3) significant adverse effects on competition, employment,

investment, productivity, innovations, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. In accordance with the Executive Order, these regulations have been reviewed by the Office of Management and Budget.

2. Review Under the Regulatory Flexibility Act

Pursuant to section 605(b) of the Regulatory Flexibility Act, 5 U.S.C. 605(b), DOE has concluded that sections 603 and 604 of the Act do not apply to the final regulations adopted today because the regulations will not have a significant economic impact on a substantial number of small entities.

3. Environmental Review

DOE has concluded that the regulations do not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act.

4. Review Under Executive Order No. 12612

Pursuant to Executive Order No. 12612, DOE has concluded that these regulations will not have any substantial direct effects on State and local governments within the meaning of the Executive Order and, accordingly, a Federalism assessment is not required.

List of Subjects in 10 CFR Part 1048

Security measures, Government contracts, Arrest authority, and Use of force.

Issued in Washington, DC on September 17, 1991.

Linda G. Stuntz,

Acting Assistant Secretary for Fossil Energy.

Accordingly, the interim final rule establishing 10 CFR part 1048, which was published at 56 FR 1908 (January 17 1991), is adopted as a final rule with the following changes:

PART 1048—TRESPASSING ON STRATEGIC PETROLEUM RESERVE FACILITIES AND OTHER PROPERTY

1. The authority citation continues to read as follows:

Authority: Sec. 662, Pub. L. No. 100-531, 102 Stat. 2652 (42 U.S.C. 7270b); section 6, Pub. L. No. 100-185, 101 Stat. 1280 (18 U.S.C. 3571(b)(5)).

§ 1048.7 [Removed]

2. Section 1048.7 is removed and § 1048.8 is redesignated as § 1048.7.

[FR Doc. 91-22981 Filed 9-23-91; 8:45 am]

BILLING CODE 6450-01-M

FARM CREDIT ADMINISTRATION**12 CFR Part 612**

RIN 3052-AB21

Personnel Administration; Effective Date**AGENCY:** Farm Credit Administration.**ACTION:** Notice of effective date.

SUMMARY: The Farm Credit Administration (FCA) published final regulations under part 612 on July 18, 1991 (56 FR 32956). The final regulations amend 12 CFR part 612 to delete requirements for FCA prior approval of salary ranges for bank senior officers, salaries of bank chief executive officers, and compensation plans other than retirement and thrift plans. In accordance with 12 U.S.C. 2252, the effective date of the final rule is 30 days from the date of publication in the **Federal Register** during which either or both Houses of Congress are in session. Based on the records of the sessions of Congress, the effective date of the regulations is September 23, 1991.

EFFECTIVE DATE: September 23, 1991.**FOR FURTHER INFORMATION CONTACT:**

James T. Judge, Special Assistant to the Chief, Human Resources Division, Office of Resources Management, Farm Credit Administration, McLean, VA 22102-5090, (703) 883-4135, Rebecca S. Orlich, Attorney, Regulatory and Legislative Law Branch, Office of General Counsel, Farm Credit Administration, McLean, VA 22102-5090, (703) 883-4020, TDD (703) 883-4444.

Authority: 12 U.S.C. 2252(a) (9) and (10).

Dated: September 19, 1991.

Curtis M. Anderson,

Secretary, Farm Credit Administration Board.

[FR Doc. 91-22967 Filed 9-23-91; 8:45 am]

BILLING CODE 8705-01-M

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Parts 21 and 25**

[Docket No. NM-58; Special Conditions No. 25-ANM-49]

McDonnell Douglas DC-9 Airplanes; Lightning and High Intensity Radiated Fields**AGENCY:** Federal Aviation Administration (FAA), DOT.**ACTION:** Final special conditions.**SUMMARY:** These special conditions are issued to ABX Air, Inc. for modification

of certain McDonnell Douglas DC-9 airplanes. These airplanes are equipped with high-technology digital avionics systems that perform critical and essential functions. The applicable regulations do not contain adequate or appropriate safety standards for the protection of these systems from the effects of lightning and high-intensity radiated fields (HIRF). These special conditions contain the additional safety standards that the Administrator considers necessary to ensure that the critical and essential functions that these systems perform are maintained when the airplane is exposed to lightning and HIRF.

EFFECTIVE DATE: September 12, 1991.**FOR FURTHER INFORMATION CONTACT:**

Woody Boyce, FAA, Standardization Branch, ANM-113, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington, 98055-4046; telephone (206) 227-2137.

SUPPLEMENTARY INFORMATION:**Background**

On November 2, 1990, ABX Air Inc. of Wilmington, Ohio, applied for a supplemental type certificate to modify Douglas DC-9-11, -12, -13, -14, -15, -21, -31, -32, -32F, -33F, -34, -34F, -41, and -51 airplanes. The DC-9 is a two-crew, two-engine, turbine airplane with a maximum takeoff weight up to 122,200 lbs. The modification incorporates the installation of an Electronic Flight Information System (EFIS) and Flight Director. The equipment originally installed in these airplanes presented the required information in the form of analog displays. The information presented is both flight critical and essential. The EFIS as a digital system is vulnerable to lightning and high-intensity radiated fields external to the airplane.

Supplemental Type Certification Basis

Under the provisions of § 21.115, subchapter C, of the FAR, ABX Air, Inc. must show that the modified DC-9 airplanes meet the regulations incorporated by reference in Type Certificate No. A6WE, as specified in § 21.101(a), unless: (1) Otherwise specified by the Administrator; (2) compliance with later effective amendments is elected or required under §§ 21.101(a) or (b); or (3) special conditions are prescribed by the Administrator.

Based on the provisions of §§ 21.101(a) and (b), ABX Air, Inc. will have to show compliance with the basic type certification basis per Type Certificate Data Sheet (TCDS) No.

A6WE, plus the following FAR part 25 requirements, up to Amendment 25-77, that are deemed necessary to provide an adequate level of safety: § 25.869(a), §§ 25.1303 (a), (b), and (c); § 25.1309 (a) thru (g); § 25.1321(e); § 25.1322 (a) thru (d); §§ 25.1331 (a) and (b); §§ 25.1333 (a), (b), and (c); § 25.1335, §§ 25.1355 (a) and (c); §§ 25.1359 (a) thru (d); §§ 25.1431 (a), (b), and (c); § 25.1525; § 25.1529; and § 25.1541(a).

If the administrator finds that the applicable airworthiness regulations (i.e., part 4b plus applicable part 25 requirements) do not contain adequate or appropriate safety standards for the Douglas DC-9 because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16 to establish a level of safety equivalent to that established in the regulations.

Special conditions, as appropriate, are issued in accordance with § 11.49 of the FAR after public notice, as required by §§ 11.28 and 11.29(b), and become part of the type certification basis in accordance with § 21.101.

Discussion

The existing lightning protection airworthiness certification requirements are insufficient to provide an acceptable level of safety with the new technology avionic systems. There are two regulations that specifically pertain to lightning protection: One for the airframe in general (§ 25.581), and the other for fuel system protection (§ 25.954). There are, however, no regulations that deal specifically with protection of electrical and electronic systems from lightning. The loss of a critical function of these systems due to lightning could prevent continued safe flight and landing of the airplane. Although the loss of an essential function would not prevent continued safe flight and landing, it could significantly impact the safety level of the airplane.

There is also no specific regulation that addresses protection requirements for electrical and electronic systems from HIRF. Increased power levels from ground based radio transmitters and the growing use of sensitive electrical and electronic systems to command and control airplanes have made it necessary to provide adequate protection.

To ensure that a level of safety is achieved equivalent to that intended by the regulations incorporated by reference, special conditions are needed for the McDonnell Douglas DC-9 which would require that the EFIS and Flight Director be designed and installed to

preclude component damage and interruption of function due to both the direct and indirect effects of lightning and HIRF.

Lightning

To provide a means of compliance with these special conditions, clarification of the threat definition for lightning is needed. The following "threat definition," based on FAA Advisory Circular 20-136, Protection of Aircraft Electrical/Electronic Systems Against the Indirect Effects of Lightning, dated March 5, 1990, is proposed as a basis to use in demonstrating compliance with the lightning protection special condition.

The lightning current waveforms (Components A, D, and H) defined below, along with the voltage waveforms in Advisory Circular (AC) 20-53A, will provide a consistent and reasonable standard which is acceptable for use in evaluating the effects of lightning on the airplane. These waveforms depict threats that are external to the airplane. How these threats affect the airplane and its systems depend upon their installation configuration, materials, shielding, airplane geometry, etc. Therefore, tests (including tests on the completed airplane or an adequate simulation) and/or verified analyses need to be conducted in order to obtain the resultant internal threat to the installed systems. The electronic systems may then be evaluated with this internal threat in order to determine their susceptibility to upset and/or malfunction.

To evaluate the induced effects to these systems, three considerations are required:

1. *First Return Stroke*: (Severe Strike—Component A, or Restrike—Component D). This external threat

needs to be evaluated to obtain the resultant internal threat and to verify that the level of the induced currents and voltages is sufficiently below the equipment "hardness" level.

2. *Multiple Stroke Flash*: (1/2 Component D). A lightning strike is often composed of a number of successive strokes, referred to as multiple strokes. Although multiple strokes are not necessarily a salient factor in a damage assessment, they can be the primary factor in a system upset analysis. Multiple strokes can induce a sequence of transients over an extended period of time. While a single event upset of input/output signals may not affect system performance, multiple signal upsets over an extended period of time (2 seconds) may affect the systems under consideration. Repetitive pulse testing and/or analysis needs to be carried out in response to the multiple stroke environment to demonstrate that the system response meets the safety objective. This external multiple stroke environment consists of 24 pulses and is described as a single Component A followed by 23 randomly spaced restrikes of 1/2 magnitude of Component D (peak amplitude of 50,000 amps). The 23 restrikes are distributed over a period of up to 2 seconds according to the following constraints: (1) The minimum time between subsequent strokes is 10 ms, and (2) the maximum time between subsequent strokes is 200 ms. An analysis or test needs to be accomplished in order to obtain the resultant internal threat environment for the system under evaluation.

3. *Multiple Burst*: (Component H). In-flight data-gathering projects have shown bursts of multiple, low amplitude, fast rates of rise, short duration pulses accompanying the airplane lightning strike process. While insufficient energy

exists in these pulses to cause physical damage, it is possible that transients resulting from this environment may cause upset to some digital processing systems.

The representation of this interference environment is a repetition of short duration, low amplitude, high peak rate of rise, double exponential pulses which represent the multiple bursts of current pulses observed in these flight data gathering projects. This component is intended for an analytical (or test) assessment of functional upset of the system. Again, it is necessary that this component be translated into an internal environmental threat in order to be used. This "Multiple Burst" consists of 24 random sets of 20 strokes each, distributed over a period of 2 seconds. Each set of 20 strokes is made up of 20 repetitive Component H waveforms distributed within a period of one millisecond. The minimum time between individual Component H pulses within a burst is 10 μ s, the maximum is 50 μ s. The 24 bursts are distributed over a period of up to 2 seconds according to the following constraints: (1) The minimum time between subsequent strokes is 10 ms, and (2) the maximum time between subsequent strokes is 200 ms. The individual "Multiple Burst" Component H waveform is defined below.

The following current waveforms constitute the "Severe Strike" (Component A), "Restrike" (Component D), "Multiple Stroke" (1/2 Component D), and the "Multiple Burst" (Component H).

These components are defined by the following double exponential equation:

$$i(t) = I_0 (e^{-at} - e^{-bt})$$

where:

t = time in seconds,

i = current in amperes, and

	Severe strike (Component A)	Restrike (Component D)	Multiple stroke (1/2 Component D)	Multiple burst (Component H)
I_0 , amp..... =	218,810	109,405	54,703	10,572
a, sec ⁻¹ =	11,354	22,708	22,708	187,191
b, sec ⁻¹ =	647,265	1,294,530	1,294,530	19,105,100

This equation produces the following characteristics:

$$i_{\text{peak}} = 200 \text{ KA} \quad 100 \text{ KA} \quad 50 \text{ KA} \quad 10 \text{ KA}$$

and

(di/dt) _{max} (amp/sec)..... =	1.4×10^{11} @t = 0+sec	1.4×10^{11} @t = 0+sec	0.7×10^{11} @t = 0+sec	2.0×10^{11} @t = 0+sec
di/dt, (amp/sec)..... =	1.0×10^{11} @t = .5 μ s	1.0×10^{11} @t = .25 μ s	0.5×10^{11} @t = .25 μ s	0.5×10^{11} @t = .25 μ s
Action Integral (amp ² sec)..... =	2.0×10^9	0.25×10^9	$.0625 \times 10^9$	

High-Intensity Radiated Fields

With the trend toward increased power levels from ground based transmitters, plus the advent of space and satellite communications, coupled with electronic command and control of the airplane, the immunity of critical digital avionics systems, such as the EFIS and Flight Director, to HIRF must be established.

It is not possible to precisely define the HIRF to which the airplane will be exposed in service. There is also uncertainty concerning the effectiveness of airframe shielding for HIRF. Furthermore, coupling to cockpit installed equipment through the cockpit window apertures is undefined. Based on surveys and analysis of existing HIRF emitters, an adequate level of protection exists when compliance with the HIRF protection special condition is shown with either paragraphs 1 or 2 below:

1. A minimum threat of 100 volts per meter peak electric field strength from 10 KHz to 18 GHz.

a. The threat must be applied to the system elements and their associated wiring harnesses without the benefit of airframe shielding.

b. Demonstration of this level of protection is established through system tests and analysis.

2. A threat external to the airframe of the following field strengths for the frequency ranges indicated.

Frequency	Peak (V/M)	Average (V/M)
10 KHz-500 KHz.....	80	80
500 KHz-2 MHz.....	80	80
2 MHz-30 MHz.....	200	200
30 MHz-100 MHz.....	33	33
100 MHz-200 MHz.....	33	33
200 MHz-400 MHz.....	150	33
400 MHz-1 GHz.....	8,300	2,000
1 GHz-2 GHz.....	9,000	1,500
2 GHz-4 GHz.....	17,000	1,200
4 GHz-6 GHz.....	14,500	800
6 GHz-8 GHz.....	4,000	666
8 GHz-12 GHz.....	9,000	2,000
12 GHz-20 GHz.....	4,000	509
20 GHz-40 GHz.....	4,000	1,000

The envelope given in paragraph 2 above is a revision to the envelope used in previously issued special conditions in other certification projects. It is based on new data and SAE AE4R subcommittee recommendations. This revised envelope includes data from Western Europe and the U.S. It will also be adopted by the European Joint Airworthiness Authorities.

Discussion of Comments

Notice No. SC-91-6-NM for the McDonnell Douglas DC-9 airplane was published in the **Federal Register** on June 24, 1991 (56 FR 28720).

Two commenters concur with the special conditions based on the fact that they are identical to special conditions that have been issued to date for other similar systems.

One commenter disagrees with the special conditions on the basis that the HIRF requirements are too stringent and not justified based on service history and the fact that the threat levels are not justified. The FAA does not agree. Even though the subjects of HIRF and lightning continue to be evaluated, the FAA considers the current requirements to be those necessary to meet the minimum safety level.

The modifier of the subject airplanes, ABX Air Inc., provided comments proposing that the FAA allow operation of their airplanes with EFIS installations utilizing non-hardended equipment, until hardware is available that meets the environmental conditions described in the notice. The FAA does not agree because at the time of approval, the intent of all applicable regulations must be met in order to issue such approval.

As a delay in issuance of these special conditions would significantly affect the applicant's installation of the system and certification of the airplane, which is imminent, the FAA has determined that good cause exists for making these special conditions effective upon issuance, as opposed to 30 days from the date of publication in the **Federal Register**.

Conclusion

This action affect only certain unusual or novel design features on one model series of airplanes. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on the airplane.

List of Subjects in 14 CFR Parts 21 and 25

Air transportation, Aircraft, Aviation safety, Safety.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 1344, 1348(c), 1352, 1354(a), 1355, 1421 through 1431, 1502, 1651(b)(2), 42 U.S.C. 1857f-10, 4321 et seq.; E.O. 11514; and 49 U.S.C. 106(g).

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the supplemental type certification basis for the modified McDonnell Douglas DC-9 series airplanes:

1. *Lightning Protection.* a. Each electrical and electronic system that performs critical functions must be designed and installed to ensure that the operation and operational capability of these systems to perform critical functions are not adversely affected when the airplane is exposed to lightning.

b. Each essential function of electrical or electronic systems or installations must be protected to ensure that the function can be recovered in a timely manner after the airplane has been exposed to lightning.

2. *Protection from Unwanted Effects of High-Intensity Radiated Fields (HIRF).* Each electrical and electronic system that performs critical functions must be designed and installed to ensure that the operation and operational capability of these systems to perform critical functions are not adversely affected when the airplane is exposed to high-intensity radiated fields external to the airplane.

3. The following definitions apply with respect to these special conditions:

Critical Function. Functions whose failure could contribute to or cause a failure condition that would prevent the continued safe flight and landing of the airplane.

Essential Functions. Functions whose failure could contribute to or cause a failure condition that would significantly impact the safety of the airplane or the ability of the flightcrew to cope with adverse operating conditions.

Issued in Renton, Washington on September 12, 1991.

Darrell M. Pederson,

Acting Manager Transport Airplane Directorate Aircraft Certification Service.

[FR Doc. 91-22928 Filed 9-23-91; 8:45 am]

BILLING CODE 4910-13-M