

June 17, 2019



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 20871

EXPIRATION DATE: 2021-05-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Castle Aviation, Inc.
North Canton, OH
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the carriage of radioactive materials aboard cargo aircraft only, when the combined Transport Index exceeds the authorized limit of 200 per aircraft or the separation distance cannot be met. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
 - c. No party status will be granted to this Special Permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.203(a) in that each shipping paper must bear the special permit number; § 175.700(b)(2)(ii) in that the combined Transport Index of all the packages on the aircraft may not exceed 200; and §§ 175.701(a) and 175.702(a)(2)(ii) in that the minimum separation distances must be maintained, except as specified herein.

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5. BASIS: This special permit is based on the application of Castle Aviation, Inc. dated April 23, 2019, submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
All Proper Shipping Names from the § 172.101 Hazardous Materials Table, which begin with the words "Radioactive material"	7	Various	N/A

7. SAFETY CONTROL MEASURES: This special permit authorizes the carriage of radioactive materials in cargo-only aircraft operations, without compliance with the regulations cited in paragraph 4. provided that Castle Aviation, Inc.:
- a. Maintains a radiation protection program that will assure compliance with the following standards set forth in the regulations of the Occupational Safety and Health Administration: 29 CFR 1910.1096 (a), (b) (1), (b) (3), (b) (4), (c), (d) and (j) through (o), for employees who work in restricted areas (as defined in 29 CFR 1910.1096(a) (3)) where they may be exposed to ionizing radiation, and will also limit the dose equivalent to the embryo/fetus of a declared pregnant worker to 500 mrem over the entire pregnancy, in accordance with the requirements for Nuclear Regulatory Commission licensees in 10 CFR 20.1208. A pregnant worker becomes a "declared pregnant worker" if, and only if, she formally declares her pregnancy in writing to her employer.
- b. Makes every reasonable effort to maintain radiation exposures as far below the limits set forth in the regulations cited in paragraph 7.a. as practicable.
- c. Assures that the carrier's radiation protection program is effectively supervised by a competent health physicist. The health physicist must have a Bachelor's degree in a science or engineering subject, or its equivalent, and at

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least three years of responsible professional experience in health physics, at least two of which have been in applied radiation protection work, specifically including experience in the kinds of radiation protection problems likely to arise in the carrier's operation.

d. Assures that the health physicist who supervises the radiation program, as a minimum, conducts or arranges for necessary employee training and routine surveys and monitoring. (Subjects to be included in the training, in addition to the training required by 49 CFR 172, Subpart H, are listed in the Appendix to this special permit.) As necessary, and at least annually, the health physicist must personally observe, review and assess operations and procedures and determine any changes needed to improve compliance with the requirement of paragraph 7.b. The health physicist must be assigned the responsibility and must be supported by management in carrying out the requirement of paragraph 7.b. of this special permit, which is a basic element of any radiation protection program.

e. Makes sure that all personnel under their direct or contractual control who are operating aircraft or otherwise handling the radioactive materials packages under the provisions of this special permit are considered to be in restricted areas and are under this radiation protection program and must wear radiation dosimetry devices while performing their work. Certain of these employees may be exempted from wearing dosimetry devices if the health physicist determines and documents why they may be so exempted.

f. Prior to each flight, after loading and after all radioactive cargo has been stowed, conducts radiation dose rate surveys in at least the following locations and prepares a written report of the maximum level for each of the following:

- (1) Pilot and copilot seat;
- (2) Space occupied, or to be occupied, by any other person;
- (3) The position of a person when refueling the aircraft; and

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(4) Radiation areas (as defined in 29 CFR 1910.1096(d)(3)(ii)) external to the aircraft which are readily accessible to personnel during normal ramp operations.

g. Conducts contamination surveys of the inside of the aircraft after any actual or suspected occurrence of contamination and prior to use of the aircraft for transport of any other cargo, in accordance with § 175.705(b) and (c), to assure that there is no significant removable surface contamination as defined in § 173.443(a).

If contamination is known to have occurred, notifies the cognizant FAA Regional Hazmat Branch Manager where the operating certificate is held.

h. Establishes procedures that will assure that persons not handling the cargo or operating the aircraft but who may be in the vicinity of the aircraft, are not exposed to radiation so as to receive a dose in excess of 2 millirem in any one hour.

i. Assesses personnel radiation exposures on at least a quarterly basis. On a quarterly basis, the health physicist must analyze the effectiveness of prior and current efforts required by paragraphs 7.a. and 7.b., and must determine any additional efforts that need to be taken to improve the radiation protection program and to minimize the radiation exposure. A report of this analysis and determination along with the results of the radiation dosimetry program and the radiation and contamination surveys (paragraphs 7.f. and 7.g.) must be submitted within 75 days after the end of each calendar quarter to the Office of Hazardous Materials Safety Approvals and Permits Division. The dose to each declared pregnant worker, if any, and the dose equivalent to her embryo/fetus, shall be included as separate items in the quarterly report of the results of the radiation dosimetry program. So long as the sum of the dose equivalents to the embryo/fetus over all calendar quarters during the pregnancy is within 500 mrem, it is sufficient to report those dose equivalents in quarterly increments.

8. SPECIAL PROVISIONS:

a. Advance notice to FAA Regional Hazmat Branch Manager: Notify the FAA Regional Hazmat Branch Manager in the Region where the flight will originate. This notification must be given at least 72 hours in advance of plans to operate under

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the special permit, or as soon as reasonably practicable, unless prior arrangements have been made with the cognizant FAA Regional Hazmat Branch Manager. The notification must include the point of departure, intermediate stops, destination(s), and loading and departure schedule. If a flight schedule deviates more than 4 hours from the originally scheduled departure time, the operator of the aircraft must notify the cognizant FAA Regional Hazmat Branch Manager. Alternate notification procedures may be established subject to the written approval of the cognizant FAA Regional Hazmat Branch Manager.

b. A copy of this special permit must be produced in a timely fashion (within 15 minutes) upon request by any employee or enforcement authority at any ramp location from which or into which any aircraft is operating under the special permit.

c. If the radiation survey required by paragraph 7.f. is performed for an aircraft operating under this special permit, a copy of the survey results must accompany the shipping papers aboard the aircraft.

d. Packages identified as containing undeveloped film and packages identified as sensitive to radiation are excluded from the other cargo that may be carried with the radioactive materials carried under this special permit. However, packages identified as containing undeveloped film or other radiation sensitive materials may be carried if the carrier submits to the Associate Administrator for Hazardous Materials Safety (AAHMS) a written description of procedures which demonstrate that the radiation protection of these materials is at least equivalent to that required by § 175.706, and obtains written approval from the AAHMS to follow those procedures.

e. No fissile material packages may be carried on any special permit flight for which the total Transport Index is greater than 200.

9. MODES OF TRANSPORTATION AUTHORIZED: Cargo-only aircraft.

June 17, 201910. MODAL REQUIREMENTS:

a. No person operating under this special permit may offer, interline, or otherwise deliver radioactive material packages totaling more than 50 TI to any person for transportation in one motor vehicle unless provided evidence that the vehicle is being operated under the provisions of DOT-SP 8308 or DOT-SP 10045.

b. No person operating under this special permit may offer, interline, or otherwise deliver radioactive material packages totaling more than 200 TI to any person for transportation in another cargo aircraft unless provided evidence that the aircraft is being operated under the provisions of a special permit that provides relief to 49 CFR 172.203(a), the 200 TI per cargo aircraft limitation in § 175.700(b)(2)(ii), and the separation distance requirements of §§ 175.701(a) and 175.702(a)(2)(ii).

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must, within the previous 24 months, have received training on the requirements and conditions of this special permit, in addition to the training required by 49 CFR 172, Subpart H, and by 14 CFR.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

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Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) - 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS:

a. The carrier is required to immediately report any incident involving loss of a radioactive materials package or, in the judgment of the company health physicist, a release or suspected release of the contents of a package, to the FAA Duty Officer, 202-267-3333 (any hour). This immediate report must include information on the contents and the number of packages involved. This information must also be reported to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this special permit). In addition, the holder(s) of this special permit must inform the AAHMS, in writing, of any incident involving shipments made under the terms of this special permit.

b. The notification and reporting requirements of 29 CFR 1910.1096(l) and (m) must be directed to the AAHMS in lieu of the Assistant Secretary of Labor.

c. The quarterly reports (paragraph 7.i.) must be submitted on schedule even if the reports state that no operations were conducted under the special permit during that quarter.

d. In addition to the requirements of § 107.109, any carrier applying for renewal who has not conducted and reported operations under this special permit, must demonstrate an effective radiation protection program for operating in compliance with this special permit. Demonstration that an effective radiation protection program exists may also be required at the request of the AAHMS.

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e. Castle Aviation, Inc., while operating under this special permit must notify the AAHMS of any adverse certificate action or changes or losses of key personnel responsible for their radiation protection program, within 30 days of the change.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Andrew Eckenrode