U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

DEC 15 2004

DOT-E 7060
(FIFTEENTH REVISION)

EXPIRATION DATE: August 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: FedEx Express, Memphis, TN

(See Appendix A to this document for a list of additional grantees)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the carriage of radioactive materials aboard cargo aircraft only, under any combination of the following conditions: when the combined transport index exceeds the authorized limits of 50 per group (as specified in § 175.702(b)(2)(ii)) or 200 per aircraft (as specified in § 175.75(a)(3)(ii)), or the separation distance criteria of § 175.702(b) cannot be met. This exemption provides no relief from any regulation other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated uses not associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: The 200 TI per cargo aircraft limitation in § 175.75(a)(3)(ii), the 50 TI per group limitation in § 175.702(b)(2)(ii), and the separation distance requirements of § 175.702(b).

5. BASIS: This exemption is based on the application for modification by FedEx Express dated July 18, 2000, submitted in accordance with § 107.105. Federal Express Corporation renewal application dated September 17, 2004 submitted in accordance with § 107.109 and supplement information dated November 9, 2004.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
All Proper Shipping Names from the Hazardous Materials Table in § 172.101 which begin with the words "Radioactive material."	7	The number from column (4) of § 172.101 corresponding to the Proper Shipping Name.	N/A

7. SAFETY CONTROL MEASURES: Each carrier identified in this exemption is authorized for the carriage of radioactive materials in cargo aircraft only operations, without compliance with the regulations cited in paragraph 4., provided the carrier:

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 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 Appendix B.) 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 exemption, 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 exemption 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. (1) 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: (i) pilot and copilot seat, (ii) space occupied, or to be occupied, by any other person, (iii) the

position of a person when refueling the aircraft, and (iv) 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.

(2) Alternatively, surveys are not required for those flights which operate with a total transport index between 50.1 and 200 if (i) the separation distance requirements listed in Part 7, Operator's Responsibilities, Section 2.9.6 Separation, of the Technical Instructions of the International Civil Aviation Organization (ICAO), are satisfied, and (ii) the health physicist's quarterly report includes the results of the quarterly dose rate surveys and the total TI and minimum separation distance on all such flights during that quarter.

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 § 175.700(b), 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 Dangerous Goods & Cargo Security Coordinator 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(1) and

7.g.) must be submitted within 75 days after the end of each calendar quarter to the Director, Office of Hazardous Materials Exemptions and Approvals (OHMEA). 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 Civil Aviation Security Regional Dangerous Goods/Cargo Security (DG/CS) Coordinator: Notify the Regional DG/CS Coordinator in the Region where the flight will originate. This notification must be given at least 72 hours in advance of plans to operate under the exemption unless prior arrangements have been made with the cognizant Regional DG/CS Coordinator. 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 Regional DG/CS Coordinator. Alternate notification procedures may be established subject to the written approval of the cognizant Regional DG/CS Coordinator.

b. A copy of this exemption 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 exemption.

c. If the radiation survey required by paragraph 7.f(1) is performed for an aircraft operating under this exemption, 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 exemption.

However, packages identified as containing undeveloped film or other radiation sensitive materials may be carried if the carrier submits a written description of procedures, and obtained written approval from OHMEA, that the radiation protection of these materials is at least equivalent to § 175.703).

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

9. MODES OF TRANSPORTATION AUTHORIZED: Cargo aircraft only.

10. MODAL REQUIREMENTS:

a. No person operating under this exemption 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-E 8308 or DOT-E 10045.

b. No person operating under this exemption 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 DOT-E 7060.

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

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

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must, within the previous 12 months, have received training on the requirements and conditions of this exemption, in addition to the training required by 49 CFR 172, Subpart H, and by 14 CFR.

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

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 exemption). In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving shipments made under the terms of this exemption.

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 exemption 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 exemption, must demonstrate an effective radiation protection program for operating in compliance with this exemption. Demonstration that an effective radiation protection program exists may also be required at the request of the AAHMS.

e. Air carriers operating under this exemption 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.:

DEC 15 2004

(DATE)

for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

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

PO: FDF/sln

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The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
ABX Air, Inc. Wilmington, OH	Sep 20, 2004	Oct 26, 2004	Aug 31, 2006
AirNet Systems, Inc. dba AirNet Express Columbus, OH	Sep 17, 2004	Oct 26, 2004	Aug 31, 2006

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Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

Date

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SUBJECTS TO BE INCLUDED IN THE TRAINING REQUIRED BY PARAGRAPH 7.d. OF DOT-E 7060

I. Elementary radiological safety

A. Basic terms.

1. Radioactive materials

2. Radiation

3. Radioactivity

4. Contamination

B. Radiation exposure.

1. External and internal

2. Protection concepts

a. External - time, distance, and shielding

b. Internal - avoid ingestion or getting material into body.

C. Dose rates and doses.

1. Relationships between dose rate and dose. (For example, should know dose for two hours and for 15 minutes are twice and one fourth the per hour dose rates).

2. Dose rate and dose examples.

a. Background levels and their influential factors.

b. Dose limit for general public or occupational worker not under radiation protection program.

c. Dose limit for occupational workers under radiation protection program.

d. Dose limit to embryo/fetus of a declared pregnant worker under radiation protection program.

e. Dose for medical procedures.

f. Life endangering dose range.

D. Radiation risks and minimizing exposures.

1. Any increase of exposure increases risk for cancer or genetic damage.

2. All occupational radiation exposures should be kept as low as reasonably achievable (ALARA). Radiation doses must be kept less than the limits for individual workers and individual members of the public and the total dose received by all workers and all members of the public must be minimized.

II. Transportation of radioactive materials

A. Packages

1. Description of packages normally handled under exemption:

a. How are they constructed?

b. Why are some light and some heavy?

2. Other common radioactive material packages.

3. Difference between Type A and Type B (Quantity and Packages).

4. Difference between "normal form" and "special form" radioactive material in a package.

B. Labels and radiation levels.

1. Radiation levels generally increase for packages bearing White I, Yellow II, and Yellow III labels.

2. Label type on RAM packages depends on radiation level at package surface and at 1 meter.

3. Transport Index (TI) is equal to maximum radiation level in millirem per hour at 1 meter from the package.

4. A highway vehicle with any Yellow III labeled packages must be placarded on all four sides.

C. Required information on shipping papers, and the purpose of this information.

D. Controlling radiation exposure.

1. Normal regulatory requirements (without exemption).

a. Limitations on the surface dose rates and TI of packages.

b. A limit on the total Transport Index of all packages.

(1) 50 TI for highway vehicle.

(2) 50 TI for passenger carrying aircraft.

(3) 200 TI for cargo-aircraft only (with spacing out between groups of 50 TI)

c. Separation distances from nearest RAM package to occupied spaces depends on total TI of all packages.

E. Good practices in handling RAM packages.

1. Avoid unnecessary time near RAM Packages.

2. Stow packages to minimize handling and exposure.

3. Use mechanical means to provide separation distance when moving package, when available and practical (e.g., handcarts and dollies).

4. Stow packages away from occupied spaces if possible.

5. If possible stow White I and Yellow II (low TI) packages between Yellow III packages and occupied spaces.

III. Specific Training Requirements for Exemption E-7060

A. Packages in unit load devices (ULD's) and motor vehicles are transported directly to aircraft or facilities in a manner that reduces package handling and the resultant radiation doses to workers.

B. Radiation protection program includes:

1. Use of radiation dosimetry devices.

2. Health physicist qualified to supervise radiation protection program.

3. Compliance of program with OSHA standard (29 CFR 1910.1096 (a), (b)(1), (3), (4), (c), (d), and (j) through (o)), and with NRC requirement for dose equivalent to embryo/fetus of a declared pregnant worker (10 CFR 20.1208).

4. Radiation exposures to be kept as low as reasonably achievable (ALARA).

5. Training as required by this exemption, and by 49 CFR 172, Subpart H.

6. Worker doses to be limited to 1250 mrem per quarter.

7. Notification of workers of their current and cumulative radiation dose, on request. As part of their training, workers must be advised of their right to obtain this information.

C. After loading and before departure aircraft radiation levels in occupied spaces and location outside the aircraft must be monitored and recorded, except that a survey is not required for flights with total TI no greater than 200, if the ICAO separation distance requirements are satisfied.

D. Aircraft must be monitored after any abnormal occurrence and after use for transport of RAM, and before being used for transport of cargo other than RAM.

E. RAM packages must not be interlined to carriers not party to E 8308, E 10045 or E 7060, if the total TI per vehicle will exceed 50 or that per cargo aircraft will exceed 200.

F. Special papers to be in the aircraft with other shipping documents required by regulations.

1. Aircraft radiation survey record. (Not needed for flights with TI no greater than 200, when the ICAO separation distances are satisfied.)

2. Instructions for possible emergencies involving RAM packages, in accordance with the Emergency Response Information requirements of 49 CFR 172, Subpart G.

3. A copy of the exemption (E 7060) need not be carried on the aircraft, but must be made available upon request within 15 minutes at any ramp where exemption flights originate or end.

G. Quarterly reports to DOT.

1. Radiation dose reports. Reports are to include dose to each declared pregnant worker, if any, and dose equivalent to her embryo/fetus.

2. Aircraft radiation surveys, as required.

3. Descriptions and assessment of efforts to keep exposures as low as reasonably achievable (ALARA).

4. Description of the health physicist activities (e.g., where, when, who and what).

H. Incidents and abnormal occurrences must be reported to DOT by telephone within one working day and by mail within seven working days.

I. No package with a "Fissile" label may be transported on any exemption flight carrying more than 200 TI.

Packages containing undeveloped photographic film or other radiation sensitive products may not be transported with the radioactive material packages carried under the exemption, unless prior written approval is obtained from OHMEA.

J. Operating procedures must be established to assure that there is no unnecessary radiation exposure to personnel not handling the packages, but who may be near the packages. These procedures must assure that such personnel do not receive more than 2 millirem in any one hour.

K. Notification

Prior to the first operation out of an airport under the provisions of this exemption, the carrier must notify the appropriate FAA Regional Dangerous Goods/Cargo Security (DG/CS) Coordinator at least 72 hours in advance.

- END -