U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

AUG 18 2004

DOT-E 8308
(TENTH REVISION)

EXPIRATION DATE: July 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Associated Couriers, Incorporated
Maryland Heights, Missouri

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

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce and temporary storage incident to that transportation of non-fissile or fissile exempt radioactive materials packages aboard highway vehicles when their combined transport indices exceed 50 or the separation distance criteria cannot be met. This exemption is subject to the implementation of a radiation protection program and other safety control measures. This exemption provides no relief from the Hazardous Materials Regulations (HMR) 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.

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

4. REGULATIONS FROM WHICH EXEMPTED: 177.842(a) and 177.842(b), and until Oct. 1, 2004, 173.447(a), in that a holder of this exemption may transport and store in transit packages of non-fissile radioactive material without regard to the grouping and separation distance requirements, and for which the sum of the transport indexes (TI) may be greater than 50.

5. BASIS: This exemption is based on the application of Associated Couriers, Incorporated dated July 6, 2004, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Radioactive material, n.o.s.*	7	UN2982*	N/A
Radioactive material, special form, n.o.s.*	7	UN2974*	N/A
Radioactive material, low specific activity, n.o.s. *or* Radioactive material, LSA, n.o.s.*	7	UN2912	N/A
Radioactive Material, Type A package *non-special form, non fissile or fissile-excepted*	7	UN2915	N/A
Radioactive Material, Type A package, special form *non fissile or fissile-excepted*	7	UN3332	N/A
Radioactive Material, Type B(U) package *non fissile or fissile-excepted*	7	UN2916	N/A
Radioactive Material, low specific activity (LSA-I) *non fissile or fissile-excepted*	7	UN2912	N/A
Radioactive Material, low specific activity (LSA-II) *non fissile or fissile-excepted*	7	UN3321	N/A

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Radioactive Material, low specific activity (LSA-III) *non fissile or fissile-excepted*	7	UN3322	N/A

* Proper shipping names and identification numbers with an asterisk are no longer valid after Sept. 30, 2004.

7. PACKAGING AND SAFETY CONTROL MEASURES: Users of this exemption are exempt from the Transport Index (TI) and separation distance limitations prescribed in 177.842(a) and 177.842(b), and until Oct. 1, 2004, 173.447(a), of the HMR for the transportation and storage incident to transportation, by motor vehicle, of radioactive materials with the shipping names indicated in paragraph 6. Each carrier identified in this exemption must:

a. Maintain a radiation protection program that will ensure compliance with the standards set forth in the regulations of the Occupational Safety and Health Administration: 29 CFR 1910.1096 (a), (b)(1), (3), (4), (c), (d), and (i) through (o), for employees who are exposed to ionizing radiation from the transport of packages containing radioactive materials. Additionally, the radiation dose equivalent to an unborn child as a result of occupational exposure of a woman who has declared herself to be pregnant may not exceed 5 milliSieverts (500 millirems).

b. Maintain radiation exposures as far below the limits set forth in 29 CFR 1910.1096(b)(1) as is reasonably achievable (ALARA program).

c. Ensure that each person performing tasks under this exemption who is occupationally exposed to radiation is monitored for radiation exposure through the use of dosimetry devices as part of the radiation protection program required by subparagraph 7.a. of this paragraph. Radiation exposure records for each person must be maintained on file for five years after the individual's last activity under the exemption.

d. Ensure that each person performing tasks under this exemption is trained in accordance with Part 172, Subpart H. For the function specific training and safety training required by § 172.704, at a minimum, the subject matter described in Annex 1 to this exemption must be used in training the hazardous material employees who handle radioactive materials.

e. Engage the services of a health physicist to supervise a radiation protection program and ensure that the health physicist meets the qualifications and conducts the activities specified in Annex 2 to this exemption. A record describing the activities performed by the health physicist during each calendar quarter must be available to authorized Federal and state inspectors on request.

f. Conduct radiation surveys with a calibrated survey instrument and record the maximum radiation levels of each vehicle transporting packages of radioactive materials under the TI and separation distance relief granted by this exemption after initial loading and prior to the departure of the vehicle. The measured radiation levels must not exceed the limits specified in § 173.441(b)(2), (3), and (4). Records of these surveys must be maintained for at least one year and must be made available to authorized Federal and state inspectors on request.

g. Conduct contamination surveys with a calibrated survey instrument and record the contamination levels of the interior of any vehicle in the following situations:

(1) after any incident that has or may have resulted in contamination of the vehicle; and

(2) after last use of the vehicle under this exemption prior to returning the vehicle to service for transport of cargo other than radioactive materials.

Any surface contamination on the vehicle must be removed to the lowest level that is reasonably achievable, but may not exceed the limits specified in § 173.443(a). The records of contamination surveys must be maintained for at least one year and must be made available to authorized Federal and state inspectors on request.

h. Ensure that no transportation or storage operation will cause any person, who is not covered by the radiation protection program required by paragraph 7.a., to receive a radiation dose greater than 0.02 milliSieverts in any hour (2 millirems in any hour). Drivers must be instructed that when it is necessary to park a vehicle transporting radioactive materials in a public area, a reasonable effort must be made to minimize dose to the public; this includes parking the transport vehicle away from occupied buildings and personal or recreation vehicles. In this regard, the exemption holder must establish written procedures for performing exposure assessments to unmonitored employees or members of the public during such operations as inter-vehicular package transfers, temporary storage incident to inter-vehicular package transfers, and other similar operations. Records of the above assessments must be maintained for at least one year and must be made available to authorized Federal and state inspectors on request.

i. As a part of the radiation protection program:

(1) Assess on at least a quarterly basis the radiation exposure received by each person who has worked full or part time under the exemption.

(2) Assess on a quarterly basis the effectiveness of the program in satisfying the requirements of paragraphs 7.a. through 7.d. and 7.h.; and

(3) Determine, if necessary, improvements to the program to minimize radiation exposure. In this regard the activities and recommendations of the health physicist will be considered to the extent practicable.

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8. SPECIAL PROVISIONS: In addition to the requirements prescribed in paragraph 7, the following requirements apply to operations conducted under this exemption:

a. The exemption holder must post a copy of this exemption and a copy of 29 CFR 1910.1096 in the principal work places where operations are conducted under this exemption. Personnel provided with radiation dosimetry devices must be furnished, upon their request, information concerning their radiation exposures.

b. In addition to the documentation required by 49 CFR Part 172 Subparts C, G, and H, the exemption holder must ensure that the following documents accompany the shipping papers:

(1) A copy of this exemption;

(2) A copy of 29 CFR 1910.1096;

(3) A copy of the radiation survey record required by paragraph 7.f.;

(4) Evidence that the vehicle operator has satisfactorily completed a training course in the hazards associated with radioactive materials as required by paragraph 7.d. (e.g., a certificate of successful completion signed by the health physicist); and

(5) A copy of the instructions and procedures to be followed in the event of an emergency which at a minimum must include:

(i) A general description of the radioactive materials normally carried and the potential radiological hazards that may be present during accident conditions for damaged and undamaged packages;

(ii) The actions to be taken by the operator to control radiological exposures;

(iii) Information and suggested instructions for emergency services personnel responding to an emergency in which the vehicle operator is incapacitated; and

(iv) A listing of the names and telephone numbers of cognizant State and Federal authorities as well as responsible individuals associated with the exemption holder for the states in which the exemption operations are conducted.

c. The exemption holder must not carry packages containing undeveloped film or packages identified as being sensitive to x-rays or radiation with packages containing radioactive materials being transported under this exemption.

d. The exemption holder must meet the requirements prescribed in Annexes 1 and 2, which are incorporated as part of this exemption.

9. MODES OF TRANSPORTATION AUTHORIZED: Closed motor vehicle.

10. MODAL REQUIREMENTS: No modal-specific requirements are required by this exemption.

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 receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

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

12. REPORTING REQUIREMENTS:

a. In addition to the requirements of § 171.15, in the event of any occurrence that results in a suspected release of radioactive material, a loss of the package, or a personnel radiation exposure exceeding the levels identified in paragraph 7.a., the exemption holder must make a telephone report of the occurrence within one business day to the Associate Administrator for Hazardous Materials Safety.

b. In addition to the notification and reporting requirements of 29 CFR 1910.1096 pursuant to paragraph 7.a., the exemption holder must direct all required notices and reports to the AAHMS, as well as the Assistant Secretary of Labor.

c. The exemption holder operating under this exemption must notify, in writing, the Associate Administrator for Hazardous Materials Safety, OHMS of any changes of key personnel responsible for the radiation protection program within 30 days of the change.

d. The exemption holder must submit to the Associate Administrator for Hazardous Materials Safety, OHMS a quarterly report including the following: (i) the results of the radiation dosimetry program required by paragraph 7.c., including a company-unique employee identifier, job category, and cumulative quarterly and annual doses of all monitored individuals, (ii) a description of the activities conducted by the health physicist during the quarter under this exemption as required by paragraph 7.e., (iii) summaries of the results of the radiation level surveys and

contamination surveys required by paragraphs 7.f. and 7.g., (iv) any changes to the radiation safety program as determined by the requirements of paragraph 7.i.,(v) an estimate of the total TI transported during the quarter; and (vi) the total quarterly dose in person-rem for all monitored personnel. The report is to be submitted within 90 days after the end of each calendar quarter and is required even if no operations were conducted under the exemption during the quarter.

Issued in Washington, D.C.:

Robert A. McGuire
for Associate Administrator for
Hazardous Materials Safety

AUG 1 8 2004
(DATE)

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: FDFerate/sln

JAN 25 2005

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	Aug 1, 2004	Aug 18, 2004	Jul 31, 2006
Care-Free Courier Corporation Phoenix, AZ	Jan 5, 2005	JAN 25 2005	Jul 31, 2006
Del-Med, Inc. South Plainfield, NJ	Jul 15, 2004	Aug 18, 2004	Jul 31, 2006
Tradewind Enterprises, Inc. Hillsboro, OR	Jul 17, 2004	Aug 18, 2004	Jul 31, 2006
Medical Delivery Service, Inc. Floral Park, NY	Jul 19, 2004	Aug 18, 2004	Jul 31, 2006

for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

JAN 25 2005
Date

ANNEX 1

TRAINING SUBJECTS FULFILLING THE REQUIREMENTS OF PARAGRAPH 7.d. OF DOT E-8308

I. Elementary radiological safety

A. Basic terms.

1. Radioactive materials (RAM)

2. Radiation

3. Radioactivity

4. Contamination

B. Radiation exposure.

1. External and internal

2. Protection factors

a. External - time, distance, and shielding; and

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

C. Dose rates and doses.

1. Relationships between dose rate and dose. (For example, the 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. Dose limit for general public or occupational worker not under radiation protection program.

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

c. Dose for medical procedures.

d. Life endangering dose range.

e. Background levels and their influential factors.

D. Radiation risks and minimization of exposures.

1. Any increases of exposures increase risks for cancer or genetic damage.

2. All occupational radiation exposures should be kept as low as reasonably achievable (ALARA).

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?

c. Why do some have dry ice inside?

2. Other common radioactive material packages.

3. Differences between Limited Quantity, Type A and Type B (Quantity and Packages).

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

B. Labels, radiation levels and placards.

1. Radiation levels generally increase from White I, to Yellow II, to 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. Shipping paper required information, and their purposes.

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, e.g., 50 TI for highway vehicles.

c. Separation distances from nearest RAM packages to occupied spaces.

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 (i.e., 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. Exemption 8308 Specific Subjects

A. Radiation protection program requires:

1. Use of radiation dosimetry devices.

2. Compliance of program with OSHA standard (29 CFR 1910.1096).

3. Radiation exposures that are as low as reasonably achievable.

4. Training (exemption, 49 CFR and 29 CFR).

5. Dose to be limited to 12.50 milliSieverts (1250 millirems) per quarter.

6. Notification of personnel of current and cumulative radiation exposure, on request.

B. After loading and before departure vehicle radiation levels must be monitored and recorded. All persons responsible for monitoring radiation levels, must be trained in the use of "survey meters."

1. Highway vehicle radiation levels must not exceed the limits of § 173.441(b)(2), (3), and (4).

a. 2 milliSieverts/hour (200 millirems/hour) at surface of vehicle.

b. 0.1 milliSieverts/hour (10 millirems/hour) at 2 meters from vehicle.

c. 0.02 milliSieverts/hour (2 millirems/hour) in occupied space, unless the person is wearing a radiation dosimeter as a part of the radiation protection program required by this exemption.

C. Vehicle must be monitored for contamination after any incident resulting in contamination or possible contamination, and before being used for transport of cargo other than RAM. Any contamination found must be removed to the lowest level achievable, and any residual contamination may not exceed regulatory limits.

D. Special papers are required to be in the vehicle with other shipping documents required by regulation.

1. Copy of the exemption (E-8308).

2. Copy of 29 CFR 1910.1096.

3. Vehicle radiation survey record.

4. Emergency procedures for incidents involving RAM packages.

a. Instructions for vehicle operators.

(1) Actions to be taken to isolate materials and keep people away.

(2) Life-saving actions.

(3) Nonradiological factors.

(4) Notification of corporate officials.

(5) Notification and cooperation with local, state, and federal authorities.

b. Additional information and suggested instructions for emergency services personnel to follow if operator is incapacitated.

(1) General description of type of RAM carried under exemption.

(2) Who in the company (or company emergency response representative) to contact for further information about RAM in shipment.

(3) General guidance for coping with emergencies such as damaged packages, fire, and injured operator.

c. Contacting instructions and listing of names and phone numbers (regular hours and off-duty hours) of State and Federal authorities to be contacted in every State of operations under the exemption. (This list should be prepared and annually confirmed and updated by corporate personnel or the health physicist.)

E. Quarterly reports to DOT.

1. Radiation exposure reports.

2. Summary of vehicle radiation surveys.

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

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

F. Incidents resulting in a suspected release of radioactive material, in the loss of a package, or in a radiation exposure above stated limits must be reported by telephone within 1 business day.

G. Packages containing fissile radioactive materials (i.e., if the word "fissile" appears in the proper shipping name) may NOT be transported under this exemption.

H. Packages of undeveloped film or other radiation sensitive materials are not to be carried when using the exemption.

I. Operating procedures must be established to assure there is no unnecessary radiation exposure to personnel not handling the packages but who may be near the packages or vehicle.

J. A copy of DOT E-8308 and 29 CFR 1910.1096 must be posted in the carrier's point of origin work place for reading by workers (29 CFR 1910.1096(i)(3)).

ANNEX 2

QUALIFICATIONS AND FUNCTIONS OF THE HEALTH PHYSICIST

I. Basic Qualifications

A. A health physicist performing activities under DOT E-8308 must meet the following requirements:

1. Possess a Bachelor's degree in a science or engineering subject; or

2. Demonstrate education and experience equivalent to a Bachelor's degree in a science or engineering subjects; and

3. Demonstrate a minimum of 3 years of responsible experience in health physics. At least 2 years of this experience must include the kinds of radiation protection problems associated with the operations of the exemption holder.

II. Functions

A. The health physicist must -

1. Provide the technical guidance and supervision for the radiation protection program required by paragraph 7.a.

2. Conduct or arrange for and maintain records of the training required by paragraph 7.d.

3. At least semi-annually personally observe and evaluate each type of operation conducted under the exemption.

4. At least semi-annually the health physicist or his designee must observe and assess the actions of each person working under the exemption who is covered by the radiation protection program. The person performing the observation must discuss with the person being observed the results of any assessment performed pursuant to this item, and appropriate work practices to maintain that person's dose ALARA. In cases where a

worker's quarterly exposure is in excess of 75% of the quarterly limit, the observations, assessment, and discussion with the employee must be performed personally by the Health Physicist.

5. Review radiation and contamination survey records that are prepared in compliance with paragraphs 7.f. and 7.g. Records of these surveys must include the date and location of the survey, the survey method, date of calibration of the survey instrument used, and the contamination levels measured.

6. Develop procedures for ensuring that radiation levels for persons not included in the radiation protection program meet the requirements of paragraph 7.h. These procedures should be as location-specific as possible.

7. On at least a quarterly basis provide each person who handles packages of operates any vehicle containing radioactive materials under this exemption with a personnel monitoring device that measures the amount of radiation exposure. Radiation exposure records for each person, including that person's company-unique employee identifier described in paragraph II.A.8, must be maintained on file for five years after the individual's last activity under the exemption.

8. Assess the radiation exposure for each individual covered by the radiation protection program. The assessment must include a review of personnel monitoring reports with respect to quarterly, year-to-date exposure limits and lifetime radiation dose accumulation. A report detailing a company-unique employee identifier, occupation, monthly, quarterly and year-to-date exposure of monitored individuals, the total exposure of all monitored persons in person-rem, and a statistical distribution of the exposures will be prepared for inclusion in the quarterly report required in 12.d of the exemption.

9. Conduct or arrange for annual calibration of radiation survey equipment used by exemption holder staff and record the type and date of calibration of the survey instruments.

- END -