



July 26, 2011

CERTIFIED MAIL – RETURN RECEIPT REQUESTED & FIRST CLASS U.S.MAIL

President
Massachusetts Institute of Technology
77 Massachusetts Ave.
Cambridge, MA 02139-4307

Case No. 2009NE700306

NOTICE OF PROPOSED CIVIL PENALTY

Based on a report of investigation, it appears that:

1. Massachusetts Institute of Technology (“MIT”) offered a shipment of hazardous materials for transportation by air, as set forth below, without complying with the Hazardous Materials Regulations (“HMR”) (Title 49 of the Code of Federal Regulations).

COUNT I: UNDECLARED SHIPMENT OF HAZARDOUS MATERIAL

2. On or about August 25, 2009, MIT knowingly offered to Fedex Express, for standard overnight service, an air service, a shipment for transportation by air (the “shipment”).
3. The shipment, which was assigned FedEx Express tracking number 8701 0297 7157, was offered for transportation in air commerce and delivery from Lewis Girod, MIT, 32 Vasser St. #32-G918, Cambridge, MA to Carlo Ratti, Executive Hotel, 400 Spring St., Seattle, WA.
4. Section 6 of the FedEx US Airbill that accompanied the shipment specifically stated that the shipment did not contain dangerous goods.
5. The shipment was discovered at the Federal Express facility in Medford, MA because smoke and flames were coming from the shipment while it was being transported on a conveyor belt.
6. Federal Express employees, not knowing the shipment contained undeclared hazardous material, made several attempts to extinguish the flames with a fire extinguisher. Use of the fire extinguisher was insufficient to extinguish the flames.

7. The following parties responded to the incident:
 - a. Federal Bureau of Investigation;
 - b. Hazmat Response Fire Team;
 - c. Medford Police Dept.;
 - d. Medford Fire Dept.;
 - e. City of Medford Board of Health;
 - f. MIT Police Dept.;
 - g. Federal Express Corp. responders;
 - h. Fox 25 News, Channel 7 News, and other media entities.
8. Investigation of the shipment revealed the following:
 - a. The shipment was packaged in a non-UN specification fiberboard box, which was charred and damaged from the fire.
 - b. There were thirty-three (33) devices inside of the fiberboard box. The devices consisted of a lithium battery attached to a circuit board and tube-like container.
 - c. Two (2) of the devices heated and melted, causing the surrounding cushioning and packaging to melt and catch fire.
9. The thirty-three (33) lithium batteries are classified as a hazardous material under section 172.101 of the Department of Transportation Hazardous Materials Regulations (HMR) (49 C. F. R. parts 171 et seq.).
10. The proper shipping name for the lithium batteries are **Lithium batteries, contained in equipment**. They are in hazard class 9, packing group II, and have an assigned identification number of UN3091 when offered for transportation in air commerce.
11. In accordance with 49 C.F.R., § 172.102, Special Provision 188, Lithium batteries, contained in equipment are excepted from all other requirements of the HMR only if they meet all of the conditions set forth in Special Provision 188, including but not limited to:
 - a. The lithium batteries must be separated or packaged in a manner to prevent short circuits;

- b. The lithium batteries must be packed in a strong outer packaging; and
 - c. Electrical devices must conform to §173.21.
12. The August 25, 2009 shipment failed to comply with the above-referenced exceptions and was therefore required to comply with all applicable provisions of the HMR.
 13. MIT offered the above-described shipment of hazardous material for transportation in commerce when the material was not properly classed, described, packaged, marked, labeled, and in the proper condition for shipment as required by the HMR.
 14. MIT offered the above-described shipment of hazardous material for transportation without properly describing the material on the shipping paper.
 15. MIT offered the above-described shipment of hazardous material for transportation by air when the shipping description of the hazardous material on the shipping papers did not contain the proper shipping name prescribed for the hazardous material, the hazard class or division prescribed for the hazardous material, the assigned identification number of the hazardous material, and the packing group in Roman numerals, as designated for the hazardous material, all shown in sequence with no additional information interspersed.
 16. MIT offered the above-described shipment of hazardous material for transportation by air without placing the total quantity of the material covered by the hazardous materials description on the shipping paper before or after, or both before and after, the description.
 17. MIT offered the above-referenced hazardous material for transportation without printing the required certification on the shipping paper as stated in §172.204(a)(1) or (a)(2) (49 C.F.R. § 172.204(a)(1) or (a)(2)).
 18. MIT offered the above-described shipment of hazardous material to an aircraft operator for transportation by air and did not provide two (2) copies of the required shipper's certification.
 19. MIT offered the above-described shipment of hazardous material for transportation by air when the fiberboard box containing the hazardous material was not marked with the proper shipping name and identification numbers, preceded by "UN" or "NA" as appropriate, of the hazardous material contained therein, and without the required markings being durable, in English and printed on or affixed to the surface of the package, or on a label, tag or sign.

20. MIT offered the above-referenced package containing hazardous material for transportation by air when the package was not properly labeled as specified in Section 172.101 (49 C.F.R. § 172.101).
21. MIT offered the above-described shipment of hazardous material for transportation by air without making emergency response information immediately available for use at all times the hazardous material was present.
22. MIT offered the above-referenced shipment of hazardous material for transportation by air without properly preparing the shipment.
23. MIT offered the above-referenced shipment for transportation by air that is forbidden in that an electrical device, which is likely to create sparks or generate a dangerous quantity of heat, must be packaged in a manner which precludes such an occurrence.

COUNT II: HAZARDOUS MATERIALS TRAINING

24. Section 171.8 (49 C. F. R. § 171.8) of the Department of Transportation Hazardous Materials Regulations (HMR) (49 C.F.R. parts 171 et seq.) defines the term ‘hazmat employer’ as a person who uses one or more of its employees in connection with transporting hazardous materials or causing hazardous materials to be transported or shipped in air commerce.
25. Section 171.8 (49 C. F. R. § 171.8) of the HMR defines the term ‘hazmat employee’ as a person employed by a hazmat employer who in the course of employment directly affects hazardous materials transportation safety.
26. The HMR require hazmat employers to ensure that each hazmat employee is trained in accordance with the requirements of the HMR and is tested by appropriate means on the training subjects covered in section 172.704 (49 C. F. R. § 172.704), and the HMR preclude hazmat employees from performing any function subject to the requirements of the HMR without first being instructed in the requirements of the HMR that apply to that function.
27. MIT is a hazmat employer, as defined above, and MIT uses hazmat employees in connection with hazardous materials transportation.
28. Based upon the findings referenced above, MIT is classified as a hazmat employer under the HMR.
29. MIT employee Lewis Girod performed functions subject to the HMR, in that he prepared the shipment of hazardous materials for transportation in air commerce described above in Count I.
30. Lewis Girod did not have the appropriate HMR training when he prepared the shipment of hazardous materials.

31. Based upon these findings, MIT failed to ensure that each of its hazmat employees were first trained and tested in accordance with the HMR requirements.
32. Based upon the foregoing facts and circumstances, MIT violated the following Department of Transportation Hazardous Materials Regulations (Title 49 of the Code of Federal Regulations):
- a. Section 171.2(e) (49 C.F.R. § 171.2(e)), in that MIT offered hazardous material for transportation in commerce when the material was not properly classed, described, packaged, marked, labeled, and in the condition for shipment required by the HMR (49 C.F.R. parts 171, et seq.).
 - b. Section 172.200(a) (49 C.F.R. §§ 172.200(a)), in that MIT offered hazardous material for transportation without properly describing the material on the shipping paper.
 - c. Section 172.202(a)(1) (49 C.F.R. § 172.202(a)(1)), in that MIT offered hazardous material for transportation when the required hazardous material description on the shipping paper did not include the proper identification number prescribed for the material in Column (4) of the §172.101 table (49 C.F.R. § 172.101).
 - d. Section 172.202(a)(2) (49 C.F.R. § 172.202(a)(2)), in that MIT offered hazardous material for transportation when the required hazardous material description on the shipping paper did not include the proper shipping name prescribed for the material in Column (2) of the §172.101 table (49 C.F.R. § 172.101).
 - e. Section 172.202(a)(3) (49 C.F.R. § 172.202(a)(3)), in that MIT offered hazardous material for transportation when the required hazardous material description on the shipping paper did not include the hazard class or division number prescribed for the material, as shown in Column (3) of the §172.101 table (49 C.F.R. § 172.101).
 - f. Section 172.202(a)(4) (49 C.F.R. § 172.202(a)(4)), in that MIT offered hazardous material for transportation when the required hazardous material description on the shipping paper did not include the packing group, in Roman numerals, as designated for the material in Column (5) of the §172.101 table (49 C.F.R. § 172.101).
 - g. Section 172.202(c) (49 C.F.R. § 172.202(c)), in that MIT offered hazardous material for transportation when the total quantity of the material covered by one description did not appear before or after, or both before and after, the shipping description of hazardous material on the shipping paper as required by subpart C of the HMR. (49 C.F.R. §§ 172.200 et seq.).

- h. Sections 172.204(a) or (c)(1) (49 C.F.R. §§ 172.204(a) or (c)(1)), in that MIT offered hazardous material for transportation without printing the required certification on the shipping paper as stated in §172.204(a)(1) or (a)(2) (49 C.F.R. § 172.204(a)(1) or (a)(2)).
- i. Section 172.204(c)(2) (49 C.F.R. § 172.204(c)(2)), in that MIT offered hazardous material to an aircraft operator for transportation by air and did not provide two copies of the required shipper's certification.
- j. Sections 172.300(a) and 172.301(a) (49 C.F.R. §§ 172.300(a) and 172.301(a)), in that MIT offered hazardous material for transportation when the package was not marked with the proper shipping name and identification number for its contents.
- k. Section 172.304(a)(1) (49 C.F.R. § 172.304(a)(1)), in that MIT offered hazardous material for transportation when the required markings were not durable, in English and printed on or affixed to the surface of the package or on a label, tag or sign.
- l. Section 172.400(a) (49 C.F.R. § 172.400(a)), in that MIT offered a package containing hazardous material for transportation by air when the package was not properly labeled as specified in Section 172.101 (49 C.F.R. § 172.101).
- m. Section 172.600(c)(1) (49 C.F.R. § 172.600(c)(1)), in that MIT offered a package containing hazardous material for transportation by air without making emergency response information immediately available for use at all times the hazardous material was present.
- n. Section 172.702(a) (49 C.F.R. § 172.702(a)) in that MIT, as a hazmat employer as defined in 49 C.F.R. § 171.8, offered a shipment containing hazardous material for air transportation and failed to ensure that each of its hazmat employees was trained in accordance with the requirements of Subpart H of Part 172 of the HMR (49 C.F.R. § 172.700 et seq.).
- o. Section 172.702(b) (49 C.F.R. § 172.702(b)) in that MIT, as a hazmat employer as defined in 49 C.F.R. § 171.8, offered a shipment containing hazardous material for air transportation and failed to thoroughly instruct its hazmat employees regarding compliance with the applicable requirements of Subpart H of Part 172 of the HMR (49 C.F.R. § 172.700 et seq.).
- p. Section 172.702(d) (49 C.F.R. § 172.702(d)) in that MIT, as a hazmat employer as defined in 49 C.F.R. § 171.8, offered a shipment containing hazardous material for air transportation and failed to ensure that each of its hazmat employees was tested by appropriate means on the training subjects covered in Section 172.704 (49 C. F. R. § 172.704).

- q. Section 172.704(a)(1) (49 C.F.R. § 172.704(a)(1)) in that MIT, as a hazmat employer as defined in 49 C.F.R. § 171.8, offered a shipment containing hazardous materials for air transportation and failed to provide each hazmat employee general awareness/familiarization training designed to provide familiarity with the requirements of Subpart H of Part 172 of the HMR (49 C.F.R. § 172.700 et seq.), and to enable the employee to recognize and identify hazardous materials consistent with hazard communication standards of Subpart H of Part 172 of the HMR (49 C.F.R. § 172.700 et seq.).
- r. Section 172.704(a)(2) (49 C.F.R. § 172.704(a)(2)) in that MIT, as a hazmat employer as defined in 49 C.F.R. § 171.8, offered a shipment containing hazardous materials for air transportation and failed to provide each hazmat employee function-specific training concerning requirements of Subpart H of Part 172 of the HMR (49 C.F.R. § 172.700 et seq.), or exemptions issued under subchapter A, which are specifically applicable to the functions the employee performs.
- s. Section 172.704(a)(3) (49 C.F.R. § 172.704(a)(3)) in that MIT, as a hazmat employer as defined in 49 C.F.R. § 171.8, offered a shipment containing hazardous materials for air transportation and failed to provide each hazmat employee safety specific training concerning the requirements listed in Section 172.704 (49 C.F.R. § 172.704).
- t. Section 173.1(b) (49 C.F.R. § 173.1(b)), in that MIT offered a shipment of hazardous materials for transportation by air without properly preparing the shipment.
- u. Section 173.21(c) (49 C.F.R. § 173.21(c)), in that MIT offered a shipment for transportation by air that is forbidden in that an electrical device, which is likely to create sparks or generate a dangerous quantity of heat, must be packaged in a manner which precludes such an occurrence.

In accordance with Section 5123(a) of Chapter 51, Title 49 of the United States Code of Transportation, (49 U.S.C. § 5123(a)) MIT is liable for a civil penalty of not less than \$250 (\$450 for training violations) nor greater than \$50,000 for each violation of the regulations. By reason of the foregoing facts and circumstances we propose to assess a civil penalty for all of the violations noted in the total amount of **\$175,000**.

Credit for corrective action, as provided by MIT prior to issuance of this Notice of Proposed Civil Penalty, is reflected in the civil penalty amount.

Enclosed is information concerning MIT's options in responding to this notice. The options include participating in an informal conference with an FAA attorney and submitting information to the FAA for consideration. MIT must submit, in writing, its choice of the alternatives explained on the enclosed information sheet, on or

before 30 days after MIT receives this Notice. If MIT fails to submit its choice within that time, we will issue a Final Notice of Proposed Civil Penalty.

Please direct all communications in this matter to Matthew J. Zappala, Office of the Regional Counsel, ANE-7, Federal Aviation Administration, 12 New England Executive Park, Burlington, MA 01803, telephone number (781) 238-7046.

CHRISTOPHER POREDA
Regional Counsel

By:

MATTHEW J. ZAPPALA
FAA Attorney

Enclosures

CERTIFICATE OF SERVICE

I certify that this Notice of Proposed Civil Penalty has been sent this date by certified mail, return receipt requested and first class mail, to:

President
Massachusetts Institute of Technology
77 Massachusetts Ave.
Cambridge, MA 02139-4307

[Name]

Date